

# Exploring Art Therapy Techniques within Service Design as a Means to Greater Home Life Happiness

By

Emily Corrigan-Kavanagh

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## LIST OF PUBLICATIONS

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## ABSTRACT

This thesis presents new theories and creative techniques for exploring ‘designing for home happiness’. Set in the context of a primarily unsustainable and unhappy world, home is understood as a facilitator of current lifestyle practices that could also support long-term happiness activities, shown to promote more sustainable behaviour. It has yet to be examined extensively from a happiness perspective and many homes lack opportunities for meaningful endeavours. Service Design, an approach that supports positive interactions, shows potential in facilitating ‘designing for home happiness’ but its tools are generally employed for visualising new systems/services or issues within existing ones instead of exploring related subjectivity. Art therapy techniques, historically used for expressing *felt* experiences, present applicable methods for investigating such subjective moments and shaping design opportunities for home happiness but have yet to be trialled in a design research context. This thesis therefore explores how Art Therapy and Service Design can be used successfully for ‘designing for home happiness’.

A first study proposes photo elicitation as a creative method to explore, with participants from UK family households, several significant home happiness needs. Subsequently, art therapy techniques are proposed in Study 2 through two bespoke Happy-Home Workshops. This gives way to the Home Happiness Theory and Designing for Home Happiness Theory, which enable designers to design for home happiness. The Designing for Home Happiness Framework emerges from these studies proposing a new design creative method delivered through a workshop with specialised design tools and accompanying process for creating home happiness designs (i.e. services, product-service-systems). Through two Main Studies the framework is tested and validated with design experts in two different contexts, Loughborough (UK) and Limerick (Ireland), confirming its suitability and transferability in ‘designing for home happiness’. Resulting concepts support collective home happiness and social innovations by facilitating appropriate social contexts for their development. Overall, this research is the first to combine art therapy techniques with service design methods, offering original theories and approaches for ‘designing for home happiness’ within Service Design and for social innovation. Collectively, this research delivers new creative methods for service designers, social innovators and designers more generally to investigate and support happier experiences within and outside the home for a more sustainable future.

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# TABLE OF CONTENTS

|  |              |
|--|--------------|
| <b>LIST OF PUBLICATIONS</b> .....  | <b>iii</b>   |
| <b>ABSTRACT</b> .....  | <b>iv</b>    |
| <b>ACKNOWLEDGEMENTS</b> .....  | <b>v</b>     |
| <b>TABLE OF CONTENTS</b> .....   | <b>vi</b>    |
| <b>LIST OF FIGURES</b> .....   | <b>xii</b>   |
| <b>LIST OF TABLES</b> .....  | <b>xviii</b> |
| <b>1 Introduction</b> .....  | <b>1</b>     |
| 1.1 Personal Motivations for Entering Enquiry.....                         | 1            |
| 1.2 Background to the Research .....                                       | 2            |
| 1.3 Research Context Overview and its Relationship to the Research .....   | 5            |
| 1.4 Research Problem .....   | 6            |
| 1.5 Aim & Objectives .....   | 7            |
| 1.6 Research Questions.....  | 7            |
| 1.7 Thesis Structural Overview .....                                       | 8            |
| <b>2 Literature Review</b> .....   | <b>11</b>    |
| 2.1 The Current Socio-Economic Paradigm and its Effects on Happiness ..... | 11           |
| 2.1.1 Social Values .....  | 12           |
| 2.1.2 Conflicts between Current Lifestyles and Happiness.....              | 13           |
| 2.1.3 Current Environments and Experiences on Offer .....                  | 14           |
| 2.1.4 Current Avenues to Happiness and Home Happiness.....                 | 16           |
| 2.1.5 Section Conclusions.....   | 16           |
| 2.2 The Meaning of Home and its Role in Happiness.....                     | 17           |
| 2.2.1 Concepts of Home .....   | 17           |
| 2.2.1.1 Home as a Physical Place.....                                      | 17           |
| 2.2.1.2 Home as Being in the World.....                                    | 19           |
| 2.2.1.3 Home as an Expression of Self.....                                 | 20           |
| 2.2.1.4 Home as a Dynamic, Influential and Evolving Environment.....       | 21           |
| 2.2.2 Home as a Complex System and Previous Home Investigations .....      | 22           |
| 2.2.3 What makes Home a Family Home? .....                                 | 24           |
| 2.2.4 Section Conclusions.....   | 25           |
| 2.3 Creativity.....  | 25           |
| 2.3.1 Human Nature .....   | 26           |
| 2.3.2 Cultural Development and Representation .....                        | 26           |
| 2.3.3 Emotions.....  | 27           |
| 2.3.4 Artistic Practice .....  | 28           |
| 2.3.5 Happiness .....  | 29           |

|          |   |           |
|----------|---|-----------|
| 2.3.6    | Section Conclusions.....  | 30        |
| 2.4      | Design as a Facilitator of Happiness and Creativity.....                                  | 30        |
| 2.4.1    | Designing for Happiness.....  | 30        |
| 2.4.2    | Service Design.....   | 35        |
| 2.4.2.1  | Service Design Tools Overview.....  | 37        |
| 2.4.2.2  | Relational Aspects of Service Design.....   | 44        |
| 2.4.3    | Overview of Creative Methods used within Service Design.....                              | 45        |
| 2.4.3.1  | Probes.....   | 48        |
| 2.4.3.2  | Generative Toolkits.....  | 52        |
| 2.4.3.3  | Prototypes.....   | 57        |
| 2.4.4    | Section Conclusions.....  | 62        |
| 2.5      | Art therapy techniques – An Alternative Approach to Exploring Subjective Experiences..... | 64        |
| 2.5.1    | Art Therapy.....  | 65        |
| 2.5.2    | Art therapy techniques vs. Creative Methods Employed in Service Design.....               | 65        |
| 2.5.2.1  | Commonalities.....  | 68        |
| 2.5.2.2  | Differences.....  | 70        |
| 2.5.3    | Section Conclusions.....  | 73        |
| 2.6      | Conclusions of the Literature Review.....   | 74        |
| <b>3</b> | <b>Methodology.....</b>   | <b>77</b> |
| 3.1      | Research purpose.....   | 77        |
| 3.2      | Theoretical Framework.....  | 78        |
| 3.3      | Research Type.....  | 79        |
| 3.4      | Research Strategy.....  | 80        |
| 3.4.1    | Grounded Theory.....  | 81        |
| 3.5      | Research Design.....  | 81        |
| 3.6      | Data Collection and Analysis Techniques.....  | 82        |
| 3.6.1    | Data collection methods.....  | 82        |
| 3.6.2    | Preparation for Data Collection – Literature Review.....                                  | 83        |
| 3.6.3    | Phase I Exploring: Preliminary Study and Study 1.....                                     | 83        |
| 3.6.3.1  | Phase I Data Collection Methods.....  | 83        |
| 3.6.3.2  | Phase I Data Analysis Techniques.....   | 85        |
| 3.6.4    | Phase 2 Theory Building: Pilot and Study 2.....   | 89        |
| 3.6.4.1  | Phase 2 Data Collection Methods.....  | 89        |
| 3.6.4.2  | Phase 2 Data Analysis Techniques.....   | 91        |
| 3.6.5    | Phase 3, Part I Theory Development: Design Tools and Process Development..                | 91        |
| 3.6.5.1  | Phase 3, Part I Data Collection Methods.....  | 92        |
| 3.6.5.2  | Phase 3, Part I Data Analysis Techniques.....   | 93        |

|          |  |            |
|----------|--|------------|
| 3.6.6    | Phase 3, Part 2 Theory Implementation: Pilot and Main Studies .....  | 94         |
| 3.6.6.1  | Phase 3, Part 2 Data Collection Methods.....   | 94         |
| 3.6.6.2  | Phase 3, Part 2 Data Analysis Techniques.....  | 94         |
| 3.7      | Sampling Strategy.....   | 95         |
| 3.8      | Research Validity and Transferability.....   | 99         |
| 3.9      | Ethics .....   | 102        |
| <b>4</b> | <b>Phase I: Study I – Exploring Important Needs for Home Happiness</b>   | <b>104</b> |
| 4.1      | Introduction.....  | 104        |
| 4.2      | Study Aim and Objectives .....   | 104        |
| 4.3      | Methodology.....   | 104        |
| 4.4      | Preliminary Study – Selection of Elicitation Method.....   | 106        |
| 4.4.1    | Results and Next Steps.....  | 107        |
| 4.5      | Study I .....  | 110        |
| 4.5.1    | Results and Findings.....  | 111        |
| 4.5.1.1  | Effective Use of Photo Elicitation as a Creative Method.....   | 111        |
| 4.5.1.2  | Triggers of Negative and Positive Emotions in the Home.....  | 114        |
| 4.5.1.3  | Relational Messages in the Home.....   | 117        |
| 4.5.1.4  | Happiness Needs and Motivations in the Home.....   | 121        |
| 4.5.1.5  | Relationship between Higher and Lower Needs .....  | 136        |
| 4.5.1.6  | Home Happiness Needs and their Relationship to Happy Sustainable Society<br>Characteristics.....                         | 138        |
| 4.5.1.7  | Positive Family Experiences.....   | 140        |
| 4.6      | Conclusions .....  | 141        |
| 4.7      | Next Steps .....   | 142        |
| <b>5</b> | <b>Phase 2: Study 2 – Initial Theory Building for Designing for Home<br/>Happiness.....</b>                              | <b>144</b> |
| 5.1      | Introduction.....  | 144        |
| 5.2      | Study Aim and Objectives .....   | 144        |
| 5.3      | Methodology.....   | 145        |
| 5.4      | Pilot of Study 2.....  | 147        |
| 5.4.1    | Results and Next Steps.....  | 150        |
| 5.5      | Study 2 .....  | 161        |
| 5.5.1    | Results and Findings.....  | 164        |
| 5.5.1.1  | Facilitating Personal Reflection and Sharing.....  | 164        |
| 5.5.1.2  | Exploring Home as a Place of Meaning – Identity, Narrative and Ideals.....   | 165        |
| 5.5.1.3  | Conceptualising Positive Family Time – Relationships between the Characteristics<br>of Positive Family Experiences ..... | 180        |
| 5.5.1.4  | Physically Enacted and Emotionally Felt Characteristics of Positive Family<br>Experiences .....                          | 181        |

|          |   |            |
|----------|---|------------|
| 5.5.1.5  | Physical and Emotional Binders of Physically Enacted Characteristics of Positive Family Experiences .....                                   | 183        |
| 5.5.1.6  | Passive and Interactive Physical Binders, and Lower and Higher Level Emotional Binders and their Role in Home Happiness.....                | 188        |
| 5.5.1.7  | Planned, Routine and Spontaneous Positive Family Experiences .....  | 193        |
| 5.5.1.8  | Designing for Happier Home Experiences and the Home Happiness Theory.....   | 197        |
| 5.6      | Conclusions .....   | 202        |
| 5.7      | Next Steps .....  | 205        |
| <b>6</b> | <b>Phase 3, Part 1: Developing the Process and Tools for Designing for Home Happiness .....</b>   | <b>206</b> |
| 6.1      | Introduction.....   | 206        |
| 6.2      | Methodology.....  | 207        |
| 6.3      | The Design Approach .....   | 208        |
| 6.3.1    | Developing the Design Tools and Process.....  | 208        |
| 6.3.1.1  | Setting the Scene and Facilitating Theory Understanding.....  | 209        |
| 6.3.1.2  | Supporting User Empathy and Developing the Persona.....   | 209        |
| 6.3.1.3  | Creating the Home Happiness Design Tools.....   | 214        |
| 6.3.1.4  | Identifying Service Design Tools to Develop Home Happiness Designs.....   | 238        |
| 6.4      | Overview of the Initial Design Tools and Process .....  | 243        |
| 6.5      | Next Steps .....  | 245        |
| <b>7</b> | <b>Phase 3, Part 2: Main Studies – Designing for Happiness in the Home</b>  | <b>246</b> |
| 7.1      | Introduction.....   | 246        |
| 7.2      | Study Aim & Objectives.....   | 246        |
| 7.3      | Methodology.....  | 247        |
| 7.4      | Pilot of Main Studies .....   | 248        |
| 7.4.1    | Results and Next Steps.....   | 249        |
| 7.5      | Final Revisions and Testing.....  | 259        |
| 7.6      | Main Study 1 and 2.....   | 272        |
| 7.6.1    | Results & Findings.....   | 274        |
| 7.6.1.1  | Coherency and Successful Application of Designing for Home Happiness Theory   | 274        |
| 7.6.1.2  | Service Design Tools as Complementary Approaches within the Designing for Home Happiness Framework and Implications for Service Design..... | 279        |
| 7.6.1.3  | Home Happiness Design Outcomes and Implications for Designing for Home Happiness  | 283        |
| 7.7      | Conclusions .....   | 285        |
| <b>8</b> | <b>Discussion .....</b>   | <b>289</b> |
| 8.1      | Introduction.....   | 289        |
| 8.2      | What Contexts Warrant the Use of Art Therapy Techniques?.....   | 290        |

|          |   |            |
|----------|---|------------|
| 8.2.1    | The Transferability of the Happy-Home Workshops—Using Art Therapy Techniques to Explore Positive Experiences..... | 291        |
| 8.2.2    | Advantages and Limitations.....   | 292        |
| 8.2.2.1  | Attracting a Predominantly Female Sample.....   | 294        |
| 8.3      | Are Art Therapy Techniques and Codesign Methods Compatible?.....  | 295        |
| 8.4      | Using a Relatively Happy Homes Sample.....  | 296        |
| 8.5      | Ethical Considerations.....   | 297        |
| 8.5.1    | Seeking Participants of Sound Mind.....   | 298        |
| 8.5.2    | Keeping the Focus Positive.....   | 299        |
| 8.6      | Reliability of Findings.....  | 299        |
| 8.7      | Implications for Service Design.....  | 300        |
| 8.8      | Implications for Designing for Home Happiness.....  | 302        |
| 8.9      | Implications for Social Innovation.....   | 304        |
| <b>9</b> | <b>Conclusions and Future Work.....</b>   | <b>307</b> |
| 9.1      | Meeting the Research Aim & Objectives.....  | 307        |
| 9.2      | Conclusions.....  | 309        |
| 9.3      | Limitations of the Research.....  | 311        |
| 9.3.1    | Time Limitations.....   | 312        |
| 9.3.2    | Social Resource Limitations.....  | 312        |
| 9.3.3    | Contextual Limitations.....   | 314        |
| 9.4      | Contribution to Knowledge.....  | 314        |
| 9.5      | Recommendations for Future Work.....  | 316        |
|          | <b>REFERENCES.....</b>  | <b>318</b> |
|          | <b>Appendix A. Map of Key Concepts and Authors within Research Context</b>  | <b>343</b> |
|          | <b>Appendix B. Phase I Semi-Structured Interview Schedules.....</b>   | <b>345</b> |
|          | <b>Appendix C. Samples of Preliminary Study Data Analysis.....</b>  | <b>349</b> |
|          | <b>Appendix D. Samples of Study I Memos and Session Summary Sheets .</b>  | <b>354</b> |
|          | <b>Appendix E. Samples of Study I Thematic, Open and Axial Coding.....</b>  | <b>360</b> |
|          | <b>Appendix F. Samples of Counting Technique Usage During Study I.....</b>  | <b>365</b> |
|          | <b>Appendix G. Samples of Study I Deductive Analysis Using Escobar-Tello’s (2010) A Priori Codes.....</b>         | <b>367</b> |
|          | <b>Appendix H. Study 2 Pilot Sample Questions and Answers from an Art Therapy Expert.....</b>                     | <b>371</b> |
|          | <b>Appendix I. Study 2 Sample Semi-Structured Interview Schedule.....</b>   | <b>375</b> |
|          | <b>Appendix J. Study 2 Workshop Sample Feedback Form.....</b>   | <b>378</b> |
|          | <b>379</b>  |            |



|  |            |
|--|------------|
| <b>Appendix K. Sample Study 2 Session Summary Sheets and Memos .....</b>   | <b>380</b> |
| <b>Appendix L. Study 2 Sample of Open Coding and Use of Sensitising Questions .....</b>  | <b>384</b> |
| <b>Appendix M. Samples of Study 2 Annotated and Visual Theoretical Memoing .....</b>   | <b>390</b> |
| <b>Appendix N. Sample Extract of Study 2 Semi-Structured Interview Transcription with Revised Codes and Themes .....</b>         | <b>394</b> |
| <b>Appendix O. Sample of Questions from Anonymised Questionnaire Issued on Facebook and Twitter During Phase 3, Part I .....</b> | <b>397</b> |
| <b>Appendix P. Sample of Responses and Template Analysis of Anonymised Questionnaire Employed During Phase 3, Part I .....</b>   | <b>399</b> |
| <b>Appendix Q. Samples of Reflective Hand Scribed Memos Used to Develop Design Tools During Phase 3, Part I .....</b>            | <b>403</b> |
| <b>Appendix R. Visual of Rating Scales for Behavioural Variables During Persona Development in Phase 3, Part I .....</b>         | <b>407</b> |
| <b>Appendix S. Memo Sample Employed to Develop New Variables During Persona Development in Phase 3, Part I .....</b>             | <b>409</b> |
| <b>Appendix T. Memo Sample Used to Construct Motivations and Pain Points During Persona Development in Phase 3, Part I .....</b> | <b>411</b> |
| <b>Appendix U. Main Studies' Workshop Sample Feedback Form .....</b>   | <b>413</b> |
| <b>Appendix V. Sample of Sensitising Questions and Thematic Analysis During Phase 3, Part 2.....</b>                             | <b>416</b> |
| <b>Appendix W. Sample Extract of Main Studies' Template Analysis.....</b>  | <b>419</b> |
| <b>Appendix X. Sample of Ethical Clearance Checklist, Consent Forms and Study Information Sheets .....</b>                       | <b>422</b> |
| <b>Appendix Y. Sample of Slides used in Presentation for Study 2 Workshops</b>   | <b>432</b> |
| <b>Appendix Z. Example of Workshop Protocol for Study 2 Workshop.....</b>  | <b>435</b> |
| <b>Appendix AA. Advertisements for Study 2 Happy-Homes Workshops ...</b>   | <b>442</b> |
| <b>Appendix AB. Sample of Slides used in Presentation for Main Studies' Pilot Workshop .....</b>                                 | <b>445</b> |
| <b>Appendix AC. Example of Workshop Protocol for Pilot Main Studies' Workshop .....</b>  | <b>452</b> |
| <b>Appendix AD. Sample of Slides used in Presentation for Main Studies' Workshops.....</b>                                       | <b>460</b> |
| <b>Appendix AE. Example of Workshop Protocol for Main Study I Workshop</b>   | <b>468</b> |

## LIST OF FIGURES

|   |    |
|---|----|
| Figure 1.1 – The Four Pillars of Sustainable Development – Social, Cultural, Economic, and Environmental Sustainability                                     | 3  |
| Figure 1.2 – Research Overview  | 5  |
| Figure 2.1 – Circumplex Model of Extrinsic and Intrinsic Goals  | 13 |
| Figure 2.2 – Maslow's Hierarchy of Needs  | 19 |
| Figure 2.3 – The Product-Service System Process   | 33 |
| Figure 2.4 – The Circular Economy   | 34 |
| Figure 2.5 – An Overview of All UK Service Design Research Currently Taking Place   | 35 |
| Figure 2.6 – The Double Diamond Design Process  | 37 |
| Figure 2.7 – An Example of a Customer Journey Map by Radarstation   | 38 |
| Figure 2.8 – An Example of a Service Blue Print   | 41 |
| Figure 2.9 – An Example of a Stakeholder Map  | 42 |
| Figure 2.10 – A Model of Arnold's Theory of Appraisal Theory, adapted from Reeve  | 45 |
| Figure 2.11 – Examples of Methods that Study What People Think, Do and Feel to Access Explicit, Observational and Latent Knowledge                          | 47 |
| Figure 2.12 – Three Approaches to Making in Codesign along the Design Process Timeline  | 47 |
| Figure 2.13 – An Example of a Cultural Probe Package  | 49 |
| Figure 2.14 – An Example of Probe Materials   | 50 |
| Figure 2.15 – An Image Demonstrating How Memories Link the Past to 'Now' and 'Dreams' Connect the Future to the Present                                     | 52 |
| Figure 2.16 – The Three Approaches To 'Making' Positioned Under the Different Design Phases and Mind-Sets that Exist Along a Timeline of the Design Process | 53 |
| Figure 2.17 – An Example of a Collage Set and Participants Engaging in the Process  | 54 |
| Figure 2.18 – An Example of Inspiration Cards   | 55 |
| Figure 2.19 – An Example of a Cognitive Mapping Kit and a Possible Outcome  | 56 |
| Figure 2.20 – An Example of a Velcro Modelling Kit and Two Participants Interacting with it   | 58 |

|   |     |
|---|-----|
| Figure 2.21 – An Example of a Model Being Assembled in a LSP Workshop and a LSP Pack  | 58  |
| Figure 2.22 – An Example of AsSeenOnTV Method and the Setup of the Room   | 60  |
| Figure 2.23 – An Example of a High Fidelity Prototype of a Plane, the Douglas SB2D ‘Destroyer’ Being Tested in a Wind Tunnel  | 61  |
| Figure 2.24 – An Example of a Paper Prototype of a New Website Design Created for the University for Creative Careers (SCAD)’s Interaction Design Department        | 61  |
| Figure 2.25 – An Example of a Rough Service Prototype   | 62  |
| Figure 3.1 – Examples of the Overlapping Characteristics of Happy and Sustainable Lifestyles  | 78  |
| Figure 3.2 – Research Structure   | 82  |
| Figure 4.1 – A Sample of Images Captured by Participants Using the Photo Elicitation Method During Preliminary Study  | 108 |
| Figure 4.2 – A Small Selection of Images Captured by Participants Using the Photo Elicitation Method During Study I   | 110 |
| Figure 4.3 – Examples of Images Captured by Participant H6A1 During Study I   | 113 |
| Figure 4.4 – A Sample of Images Captured by Participants Around Negative Topics, such as Household Chores and Conflicting Ideals During Study I                     | 114 |
| Figure 4.5 – A Small Selection of Images Captured by Participants Around Positive Themes During Study I   | 116 |
| Figure 4.6 –Two Images Captured of Participant H3A1’s Child’s Untidy Room that Resulted in a Negative Relational Message During Study I                             | 118 |
| Figure 4.7 – An Image of Two Cups of Tea on H2’s Kitchen Counter Top Provided by Participant H2A1 in Preparation for the Parents’ Tea Break Captured During Study I | 119 |
| Figure 4.8 – An Image of Bath with Hot Water and Bubbles Prepared for Participant H10A2 by Her Children Captured During Study I                                     | 119 |
| Figure 4.9 – An Image of a Jewellery Tree Belonging to Participant H3A1’s Partner that Triggered Positive Relational Messages for Him Captured During Study I       | 120 |
| Figure 4.10 – Two Images of Egg-Cress-People made By Mother and Son Captured During Study   | 121 |
| Figure 4.11 – Pie Chart Detailing the Frequency of Each Code for Home Happiness Activities Occurred in Study I Data   | 122 |

|  |     |
|--|-----|
| Figure 4.12 – Two Sample Images Portraying Activities of Self-Love, such as Art Making and Exercising, Captured During Study 1   | 126 |
| Figure 4.13 – A Visualisation of Higher Needs Supported by Lower Needs for Happiness in the Home, in Order of Occurrence from Study 1 Findings   | 137 |
| Figure 5.1 – Notes and Drawings from Activity 1 (image awareness exercise), then Activity 2 (spontaneous art making) and Activity 3 (visualising positive family time) During Study 2 Pilot Workshop | 150 |
| Figure 5.2 – A Montage of All Artwork Created During Study 2 Pilot Workshop  | 151 |
| Figure 5.3 – A Selection of Images Created During Activity 2 (spontaneous art making) in Study 2 Pilot Workshop  | 154 |
| Figure 5.4 – Artwork Created by Participant A1 to Represent a Positive Family Experience in Study 2 Pilot Workshop   | 154 |
| Figure 5.5 – Artwork Created by Participant A4 to Represent a Positive Family Experience in Study 2 Pilot Workshop   | 156 |
| Figure 5.6 – Artwork Created by Participant A2 to Represent a Positive Family Experience in Study 2 Pilot Workshop   | 157 |
| Figure 5.7 – Artwork Created by Participant A3 to Represent a Positive Family Experience in Study 2 Pilot Workshop   | 159 |
| Figure 5.8 – An Image of the Final Room Layout and Workshop in Action for Study 2 Workshops  | 163 |
| Figure 5.9 – Artwork Created by Participant H6F48 During Activity 2 of Study 2 Workshops   | 168 |
| Figure 5.10 – Artwork Created by Participant H6F48 During Activity 2 of Study 2 Workshops  | 169 |
| Figure 5.11 – Artwork Created by Participant H10M45 During Activity 2 and Artwork Made by Participant H4F51 for Activity 3 of Study 2 Workshops  | 170 |
| Figure 5.12 – Artwork Created by Participant H2F51 During Activity 2 of Study 2 Workshops  | 170 |
| Figure 5.13 – Artwork Created by Participant H11F31 During Activity 2 and 3 of Study 2 Workshops   | 171 |
| Figure 5.14 – Artwork Created by Participant H10F51 During Activity 2 and 3 of Study 2 Workshops   | 172 |
| Figure 5.15 – Artwork Created by Participant H10F34 During Activity 3 of Study 2 Workshops   | 173 |

|   |     |
|---|-----|
| Figure 5.16 – Artwork Created by Participant H2F51 to Represent a Positive Family Experience During Study 2 Workshops   | 174 |
| Figure 5.17 – Artwork Created by Participant H1F49 During Activity 2 of Study 2 Workshops   | 175 |
| Figure 5.18 – Artwork Created by Participant H1F49 During Activity 3 of Study 2 Workshops   | 176 |
| Figure 5.19 – Artwork Created by Participant H3F41 During Activity 3 of Study 2 Workshops   | 177 |
| Figure 5.20 – Artwork Created by Participant H5M45 During Activity 3 of Study 2 Workshops   | 178 |
| Figure 5.21 – Artwork Created by Participant H9F45 During Activity 3 of Study 2 Workshops   | 178 |
| Figure 5.22 – Artwork Created by Participant H7F48 During Activity 3 of Study 2 Workshops   | 179 |
| Figure 5.23 – Artwork Created by Participant H6F48 During Activity 3 of Study 2 Workshops   | 180 |
| Figure 5.24 – Physically Enacted and Emotionally Felt Characteristics of Positive Family Experiences  | 181 |
| Figure 5.25 – How Physically Enacted Characteristics of Positive Family Experiences Can Lead to Emotionally Felt  | 183 |
| Figure 5.26 – A Generic Depiction of Which Physically Enacted Characteristics of Positive Family Experiences Lead to Particular Emotionally Felt Qualities and How These Collectively Equate into Pleasant Family Occasions | 188 |
| Figure 5.27 – The Sequence in which Physically Enacted Characteristics Occur During Spontaneous Positive Family Experiences   | 194 |
| Figure 5.28 – The Sequence in which Physically Enacted Characteristics Occur During Routine Positive Family Experiences   | 195 |
| Figure 5.29 – The Sequence in which Physically Enacted Characteristics Occur During Planned Positive Family Experiences   | 197 |
| Figure 6.1 – Initial Persona Developed During Phase 3, Part I   | 213 |
| Figure 6.2 – Design Tool 1, Version 1, Developed During Phase 3, Part I   | 217 |
| Figure 6.3 – Essential and Nonessential Home Activities Sheet (ENHAS), Version 1, Developed During Phase 3, Part I  | 219 |
| Figure 6.4 – Design Tool 2, Version 1, Developed During Phase 3, Part I   | 222 |

|  |     |
|--|-----|
| Figure 6.5 – 25 Common Positive Emotions Sheet Used with Design Tool 2, Version 1, Developed During Phase 3, Part I        | 224 |
| Figure 6.6 – 24 Strengths Sheet Used with Design Tool 2, Version 1, Developed During Phase 3, Part I                       | 225 |
| Figure 6.7 – Design Tool 3 Developed During Phase 3, Part I  | 227 |
| Figure 6.8 – Design Tool 4 Developed During Phase 3, Part I  | 229 |
| Figure 6.9 – Design Tool 5 Developed During Phase 3, Part I  | 231 |
| Figure 6.10 – Design Tool 6 Developed During Phase 3, Part I   | 233 |
| Figure 6.11 – Design Tool 7 Developed During Phase 3, Part I   | 235 |
| Figure 6.12 – Steps for Designing for Home Happiness Templates Sheet (SDHHTS) Developed During Phase 3, Part I             | 237 |
| Figure 6.13 – Offerings Map Developed During Phase 3, Part I   | 239 |
| Figure 6.14 – Stakeholder Map Developed During Phase 3, Part I   | 240 |
| Figure 6.15 – Customer Journey Map Developed During Phase 3, Part I  | 242 |
| Figure 7.1 – Example of Ideational Work during Activity 2 of Phase 3, Part 2 Pilot   | 251 |
| Figure 7.2 – Example of Ideational Work during Activity 3 of Phase 3, Part 2 Pilot   | 253 |
| Figure 7.3 – Example of Results Using Offerings Map Template During Activity 9 of Phase 3, Part 2 Pilot                    | 256 |
| Figure 7.4 – Example of Results Using Stakeholder Map Template During Activity 9 of Phase 3, Part 2 Pilot                  | 256 |
| Figure 7.5 – Example of Results Using Customer Journey Map Template During Activity 9 of Phase 3, Part 2 Pilot             | 257 |
| Figure 7.6 – Design Tool 1, Final Version, Developed During Phase 3, Part 2  | 260 |
| Figure 7.7 – Essential and Nonessential Home Activities Sheet (ENHAS), Final Version, Developed During Phase 3, Part 2     | 261 |
| Figure 7.8 – Upside of Essential Home Activities Cards Developed During Phase 3, Part 2                                    | 262 |
| Figure 7.9 – Upside of Nonessential Home Activities Cards Developed During Phase 3, Part 2                                 | 262 |
| Figure 7.10 – Sample of the Underside of Essential and Nonessential Home Activities Cards Developed During Phase 3, Part 2 | 263 |

|   |     |
|---|-----|
| Figure 7.11 – Design Tool 2, Final Version, Developed During Phase 3, Part 2                                    | 263 |
| Figure 7.12 – Side 1 of Emotional Binder Sheet for Meaning Developed During Phase 3, Part 2                     | 264 |
| Figure 7.13 – Side 2 of Emotional Binder Sheet for Meaning Developed During Phase 3, Part 2                     | 265 |
| Figure 7.14 – Side 1 of Emotional Binder Sheet for Engagement Developed During Phase 3, Part 2                  | 265 |
| Figure 7.15 – Side 2 of Emotional Binder Sheet for Engagement Developed During Phase 3, Part 2                  | 266 |
| Figure 7.16 – Side 1 of Emotional Binder Sheet for Pleasure Developed During Phase 3, Part 2                    | 266 |
| Figure 7.17 – Side 2 of Emotional Binder Sheet for Pleasure Developed During Phase 3, Part 2                    | 267 |
| Figure 7.18 – Persona Hand-out, Final Version, Developed During Phase 3, Part 2                                 | 268 |
| Figure 7.19 – Revised Slide for Activity 1 (Sharing Positive Home Experiences) Developed During Phase 3, Part 2 | 269 |
| Figure 7.20 – Overview of Designing for Happy Homes Framework using Double Diamond Design Process               | 272 |
| Figure 7.21 – Final Workshop Setup for Main Study 1   | 273 |
| Figure 7.22 – Work In-progress During Main Study 2  | 273 |
| Figure 7.23 – Work In-progress During Main Study 2  | 274 |
| Figure 7.24 – Work In-progress During Main Study 1  | 278 |
| Figure 7.25 – Completed Offerings Map from Main Study 1   | 280 |
| Figure 7.26 – Completed Stakeholder Map from Main Study 2   | 281 |
| Figure 7.27 – Completed Customer Journey Map from Main Study 1  | 282 |

## LIST OF TABLES

|   |     |
|---|-----|
| Table 2.1– The Four Levels of Everyday Creativity   | 15  |
| Table 2.2 – Summary of Service Design Methods for Designing for Home Happiness Organised by Double Diamond Design Process Stages  | 43  |
| Table 2.3 – Summary of Creative Methods and Their Roles in Participatory Design   | 46  |
| Table 2.4 – A Cross Comparison of Art Therapy Techniques with Creative Methods  | 67  |
| Table 2.5 – Commonalities and Differences of Art Therapy Techniques with Creative Methods   | 69  |
| Table 3.1 – Purposes of Research and Their Resulting Design and Type  | 77  |
| Table 3.2 – A Priori Codes Used During Analysis of Study I  | 88  |
| Table 3.3 – Summary of Phase 1 Sampling   | 96  |
| Table 3.4 – Summary of Phase 2 Sampling   | 97  |
| Table 3.5 – Summary of Phase 3 Sampling   | 99  |
| Table 3.6 – Verification Strategies for Research Validation and Repeatability   | 99  |
| Table 4.1 – Phase I Data Collection Methods and Analysis Techniques   | 105 |
| Table 4.2 – Preliminary Study Sample Breakdown  | 105 |
| Table 4.3 – Study I Sample Breakdown  | 106 |
| Table 4.4 – A Sample of Codes (Activities) and Themes Related to Happiness in the Home and Links to Happy Sustainable Society Characteristics Using Escobar-Tello’s A Priori Codes Drawn During Study I | 123 |
| Table 4.5 – A Sample of Codes (Activities) Related to Happiness in the Home and Hypothesised Implied Needs (New Themes) for Each Identified During Study I  | 124 |
| Table 4.6 – An Example of the Ten Needs, in Order of Importance that Emerged from Study I Data and Their Most Common Corresponding Activities   | 125 |
| Table 4.7– List of Activities that Occurred Under the Need for Self-Love During Study I   | 127 |
| Table 4.8– The Complete List of Activities that Occurred Under the Need for Reciprocal Love During Study I  | 129 |
| Table 4.9 – The Complete List of Activities that Occurred Under the Need for Companionship During Study I   | 129 |
| Table 4.10 – List of Activities that Occurred Under the Need for Comfort During Study I   | 130 |



|   |     |
|---|-----|
| Table 4.11 – A List of Activities that Occurred Under the Need to Reflect Values in the Home During Study I                                 | 132 |
| Table 4.12– The Full List of Activities for Happiness that were Facilitated in the Home by Consistency During Study I                       | 133 |
| Table 4.13– The Full List of Activities for Happiness that were Facilitated in the Home by Freedom During Study I                           | 134 |
| Table 4.14 – A List of Activities Undertaken in the Home that Indicated a Need for Privacy During Study I                                   | 135 |
| Table 4.15 – A List of Occurring Home Activities that Appeared to be Facilitated by Control During Study I                                  | 136 |
| Table 4.16– A List of Activities Relating to the Need for Security in the Home During Study I   | 136 |
| Table 4.17 – Connections Made Between the Most Important Activities for Home Happiness and Those for Happy Sustainable Societies in Study I | 139 |
| Table 5.1– Phase 2 Data Collection Methods and Analysis Techniques  | 145 |
| Table 5.2 – Participant Breakdown for Pilot for Study 2   | 145 |
| Table 5.3 – Study 2 Sample Breakdown  | 146 |
| Table 5.4 – Tasks, Procedures and Rationales of Study 2 Pilot Workshop  | 148 |
| Table 5.5 – Results of Art Therapy Techniques Employed in Pilot Workshop for Study 2  | 152 |
| Table 5.6 – Common Characteristics of Positive Family Experiences in Order of Frequency Mentioned During Pilot of Study 2                   | 155 |
| Table 5.7 – Tasks and Procedures Followed in Study 2 Workshops and Rationales   | 161 |
| Table 5.8 – Details of Specific Objects that Placed a Central Role in the Positive Experiences of Several Households in Study 2 Sample      | 176 |
| Table 5.9 – Essential Physically Enacted Characteristic of Positive Family Experiences and Description                                      | 184 |
| Table 5.10 – Descriptions of Physical and Emotional Binders, Their Sub-types and Examples   | 190 |
| Table 5.11 – Descriptions of Physical and Emotional Binders for Pleasure, Engagement and Meaning, and Examples                              | 191 |
| Table 5.12 – Summary of Study 2 Findings  | 200 |
| Table 5.13 – Recommended Design Direction for Supporting Happiness in Unhappy Homes   | 201 |

|  |     |
|--|-----|
| Table 6.1 – Phase 3 Part 1 Data Collection Methods and Analysis Techniques                 | 207 |
| Table 6.2 – Home Happiness Design Tools, Version 1, Developed During Phase 3, Part I       | 215 |
| Table 6.3– Tasks, Methods and Procedures of Designing for Happy Homes Workshops, Version 1 | 243 |
| Table 7.1 – Phase 3 Part 2 Data Collection and Analysis Techniques                         | 247 |
| Table 7.2 – Participant Breakdown for Main Studies’ Pilot                                  | 247 |
| Table 7.3 – Participant Breakdown for Main Study 1   | 248 |
| Table 7.4 – Participant Breakdown for Main Study 2   | 248 |
| Table 7.5 – Tasks and Procedures of Designing for Happy Homes Framework, Final Version     | 270 |
| Table 7.6 – Home Happiness Designs Resulting from Main Studies’ Workshops                  | 283 |
| Table 9.1 – How the Research Objectives Were Achieved                                      | 308 |

## **I Introduction**

The first chapter sets out the background, personal reasons and circumstances for the research. This is followed by a general overview of relevant contexts, such as design for sustainable development, happiness and creativity, and discussion of the research problem. Additionally, the aim, objectives and research questions that informed how the research was conducted are discussed and a summary of thesis structure is presented.

### **1.1 Personal Motivations for Entering Enquiry**

‘Art is a means to know the self’ (Allen, 1995). To understand subjective phenomena that is not readily quantifiable, such as home happiness, individuals need to reflect on their experiences extensively to be able to report on these meaningfully. The expressive ability of Art Therapy to uncover and unlock the intricacies of complex felt moments appeared to be a relatively untapped resource employed within design research and practice. The author hence wanted to explore how this could be used in design to explore and support positive emotional experiences, supporting happier ways of living.

Initially obtaining a BA in Visual Communication, the author was educated in the practical and technical applications of graphic design, including illustration, photography, painting and drawing. Following this, she achieved an MA in Design: Critical Practice, which motivated her to think more critically about the social influences of the design profession, such as consequences of current design practices and how these could be harnessed towards happier societies. Subsequently working a year in industry allowed the author to develop her practical design skills and understand the demands placed on designers to ‘sell ideas’. Although insightful, this career path did not resonate with her developing aspirations—to use art and design to promote happiness. The author therefore began training as an art therapist. To meet the entry criteria for an MA in Art Therapy, she completed an art therapy foundation certificate and then acquired an art and design teaching position at secondary school level. During this time, the author integrated her art therapy and design knowledge; art making activities to alleviate stress and support happy experiences were planned and delivered to students. Additionally, she began reading inspirational research by Escobar-Tello (2009, 2013) that demonstrated how actions for happiness could encourage those for sustainability through design. Collectively, this motivated the author to think of potential

research directions that explored how art and design could be combined to facilitate both happiness and sustainable behaviour. Consequently, her original art therapy career aspirations shifted to embarking on a PhD journey to formally investigate and put forward original thinking on this subject with home becoming the primary focus.

## **1.2 Background to the Research**

Our quality of life has improved dramatically over the last 200 years but this has also brought many consequences. Temperatures, sea levels and natural disasters have risen due to the increased intensity of human endeavours such as burning of fossil fuels and deforestation (IPCC, 2014). Our current GDP-based economies, being reliant on high levels of material consumption, continue to exasperate these issues through excessive production of commercial products and waste—for example, 15 million tons of food and drink is wasted every year in the UK (Department for Environment Food & Rural Affairs, 2013). Furthermore, approximately 450 million people worldwide also have mental health issues (World Health Organization, 2001) and one in six British adults experience at least one diagnosable mental health problem annually, the most common of which are related to unhappiness, such as anxiety and depression (Mental Health Foundation, 2007). There is a need to change current practices to those that are both environmentally and emotionally sustainable.

The Brundtland Report outlines the concept of sustainable development as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own’ (The World Commission on Environment and Development, 1987, p. 24). Subsequently at the first United Nations (UN) Conference, the Earth Summit, the interdependence of *economic development*, *social development* and the *environment* were recognised (O’Brien, 2008, p. 289), creating the three pillars of sustainability. This has since grown to include *cultural development* as the fourth (Finnsson, 2006; UCLG, 2014, 2015). See Figure 1.1.



Figure 1.1 – The Four Pillars of Sustainable Development – Social, Cultural, Economic, and Environmental Sustainability (City of Norwood Payneham & St Peters, 2012)

The introduction of this fourth pillar makes evident the recognised importance of the arts in the sustainable development of future generations. However, current wellbeing in the Western world is primarily understood as a ‘product based’ one (Manzini, 2006, p. 2). Initially put in place to extend leisure time and make everyday living easier, modern designs are now commonly associated with ‘disabling solutions’ where skills and knowledge are grouped into devices, reducing or removing user involvement (ibid). They frequently offer individuals little opportunities for creativity (Sanders and Stappers, 2008). This is reflected in most contemporary Western homes, many of which are filled with designed artefacts and interiors that allow inhabitants to be often unsustainable with ease. People tend to live by the *affordances* of their space (Gibson, 1979), and current domestic environments offer seemingly boundless electricity, comfort and convenience. However, the home plays many roles in an individual’s life. It provides shelter and a place to rest. It can be viewed as an extension of the self (Csikszentmihalyi and Rochberg-halton, 1981), portraying hopes and ideals (De Botton, 2006), and where social identity is solidified through the exhibition of artefacts of emotional and social relevance (Cristoforetti, Gennai and Rodeschini, 2011)—a process constantly in flux. Correspondingly, as it is constantly evolving space (Dovey, 1985), comprised of

multiple interactions between individuals, objects and society (Ingold, 2011), the home context could influence current behaviour and, by enabling certain activities or not, could improve happiness and encourage sustainable practices.

Fuad-Luke (2004) states that designers, ‘perceived as mere stylists to a (rampant) consumer society’ are responsible for many of the mechanisms (i.e. excessive material consumption) leading to these current problems. Design could, by the same course, influence a happier and more sustainable future (Manzini, 2006). Various design approaches, including Service Design (Stickdorn and Schneider, 2011), Emotional Design (Norman, 2004) and Design for a Circular Economy (The Ellen MacArthur Foundation, 2015) to name a few, have emerged in response to these issues. Design discipline is now also directed more towards customer satisfaction and emotional experiences (Kimbell, 2009). Evidently, there are many design fields that could be explored for improving happiness and sustainability in the home. However, this PhD research was funded by a doctoral consortium with a special focus on Service Design. It was therefore important to situate this research in relation to this design area. As was discovered through literature review—discussed in detail in forthcoming Chapter 2—Service Design, with its primary focus being on the user journey and experience in its entirety (Stickdorn and Schneider, 2011), offers a potential framework to mediate new happy home moments. It has many user-centred research tools at its disposal (i.e. customer journey maps and personas)(*ibid*). Additionally, several creative methods, such as probes, prototypes and generative toolkits, for exploring and involving user perspectives in the design process (Sanders and Stappers, 2012, 2014b), have been documented in design research more generally, including Service Design. Employed primarily for generating inspirational content and/or involving users in the design process, these are not specialised methods for exploring unconscious emotional motivations behind home happiness and sustainability.

On the contrary, the ability of art making to access the subconscious has been acknowledged and is practiced in Art Therapy (Levine and Levine, 2011; BAAT, 2015). Related techniques involve open reflection after the creation of spontaneous imagery using art media (Malchiodi, 2007). This process tends to by-pass defensive thinking and allows inconceivable feelings and values to be visualised and realised (*ibid*). Given this, how can art therapy techniques provide a richer image of the social dimensions of home? Furthermore,

coupled with service design approaches, how can they offer an alternative means of informing the creation of future happy homes? The following sections explore how this research intends to do this.

### 1.3 Research Context Overview and its Relationship to the Research

Figure 1.2 displays a general overview of the research context, the connections between its key concepts and how they relate to the research overall. Current avenues for achieving happiness and their effects on home and society are explored in forthcoming Chapter 2 in which applicable tools and approaches are identified and then applied in Chapter 4 and Chapter 5 to conceptualise home happiness. Subsequently, ways of supporting it are examined in Chapter 6 and Chapter 7.

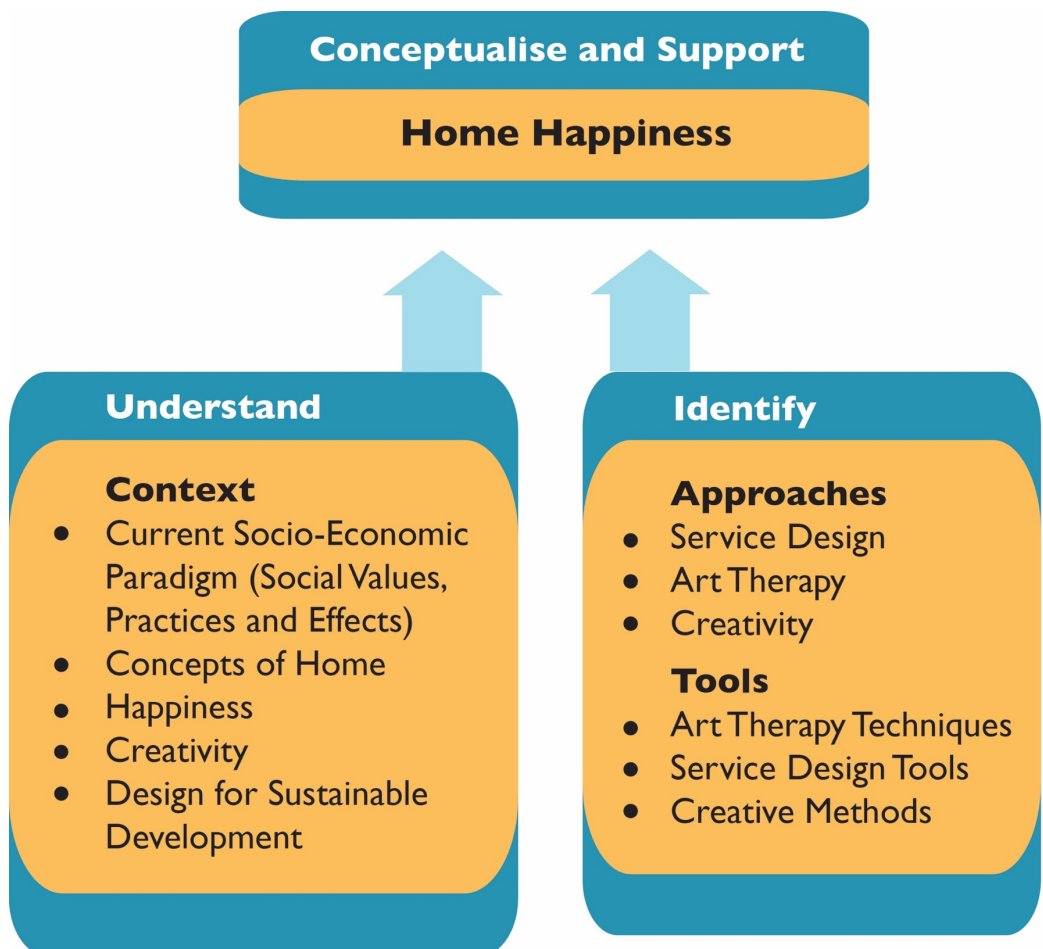


Figure 1.2 – Research Overview

#### **1.4 Research Problem**

Current Western homes, filled with free-flowing electricity and products, are usually built around contemporary social norms of material consumption, efficiency and convenience. Sustainability remains an abstract concept to most individuals as there is a disconnection between the planetary crisis and everyday experiences. In this manner, homes can be seen to reflect and strengthen the ideals of current society by the types of activities they facilitate. However, by the same mechanisms, homes that enable happiness triggers and sustainable practices could provide a bridge between current lifestyles, and happy and sustainable future homes. Given the centrality of home in our lives, it harbours huge potential for future social change.

Furthermore, lifestyles of high consumption, alongside its environmental implications, do not seem to increase happiness (Hofstetter, Madjar and Ozawa, 2006). A considerable body of research is amounting to discount any connection between high levels of consumption and long-term happiness (ibid). There is also research that suggests a strong commonality between the characteristics of happy, and sustainable societies, and that the current socio-economic system may counteract these (Escobar-Tello, 2011, 2016; Escobar-Tello and Bhamra, 2013). In other words, happiness actions, such as engagement in pro-social activities, can accumulate to encourage a more sustainable society on a community level—being a proactive citizen for example. Nevertheless, consumption or ‘retail therapy’ have become normalised and engrained avenues for reaching contentment (Kasser, 2006, p. 200). Thus, changing patterns or routines in domestic and consumer behaviour involves challenging accepted cultural norms (Hamilton, 2010).

Furthermore, previous initiatives to improve sustainability in the home have been addressed mostly from built environment (Lazarus, 2009; Affinity Sutton, 2011) and technological points of view (Horton, 2005; LEEDR (Low Effort Energy Demand Reduction) project, 2014), which tend to neglect some or all happiness aspects of human living. Additionally, home is a socially complicated place, created through various interactions between people, objects and society (Dovey, 1985; Massey, 2005; Ingold, 2011). By looking at the social dimensions of home, it may be possible to examine this system more holistically, identifying where happiness and sustainable practices overlap and, in turn, create happier and more sustainable living contexts by supporting these. This research therefore



explores and challenges traditional expectations of home happiness using art therapy techniques and service design approaches to examine and facilitate happy *and* sustainable home practices. In this manner, it also presents ways of investigating complex subjectivity within this space and ways of encouraging home happiness on both an individual and societal scale.

## **1.5 Aim & Objectives**

The overarching aim of this research is to explore how creative techniques within art and design, specifically Art Therapy and Service Design, can contribute to happiness in the home. Objectives are as follows:

1. To review the literature relating to the main research aim, such as the current socio-economic paradigm and its effects on happiness, meanings of home, creativity, design as a facilitator of happiness and creativity, Service Design and Art Therapy.
2. To identify ways of enhancing home happiness.
3. To test the use of art therapy techniques in conceptualising home happiness triggers into explanatory terms, such as design tools and frameworks.
4. To develop and implement 'designing for home happiness' design tools and framework for use with service design approaches.
5. To examine the implications of using art therapy techniques within Service Design to improve home life happiness for future happy homes, Service Design and social innovation.

## **1.6 Research Questions**

**Main Question:** How can art therapy techniques be used within Service Design to increase happiness in the home?

**Sub-questions:**

1. What are the most important needs for home happiness?
2. How can art therapy techniques be employed to enhance important home happiness needs?

3. How can service design approaches be used with art therapy techniques to improve home happiness?
4. What are the implications of using art therapy techniques with service design approaches for future Service Design and ‘designing for home happiness’?

Answers to the **Main Research Question** and corresponding sub-questions are interwoven throughout the thesis:

- Chapter 2 sets out the context within which the research questions sit.
- **Sub-Question 1** is addressed in Chapter 4, which explores and identifies the most significant home happiness needs.
- **Sub-Question 2** is explored in Chapter 5, Chapter 6 and Chapter 7 collectively. Chapter 5 investigate ways of employing art therapy techniques to explain conditions for home happiness needs. Chapter 6 and Chapter 7 investigate how Chapter 5 findings can be utilised to support home happiness.
- **Sub-Question 3** is answered in Chapter 6 and Chapter 7, which examines ways of using service design approaches with art therapy techniques to facilitate home happiness.
- **Sub-Question 4** is attended to in Chapter 7 and Chapter 8 where the overall consequences of utilising art therapy techniques with service design approaches in future Service Design and ‘designing for home happiness’ projects are examined.

## **1.7 Thesis Structural Overview**

This thesis is composed of nine chapters:

- Chapter 2 – Literature Review

This chapter investigates the literature within the research context. The first section explores the current socio-economic paradigm and its impact on the research problem. The second section presents previous home concepts in preparation for the third section’s description of creativity’s importance in human life, including home happiness. The remaining two sections

deal with ‘designing for happiness’, Service Design and Art Therapy. The fourth section highlights the potential for ‘designing for happiness’, including Service Design, to facilitate home happiness. The remaining fifth section describes differences between art therapy techniques and creative methods used in Service Design, and possible benefits of exploring home happiness using these approaches.

- Chapter 3 – Methodology

The subsequent chapter outlines the methodology employed for the research. This allowed for the formalisation of the research aim and objectives set out in Chapter 1. By examining the purpose of the research, the research type, design and strategy were determined and rationalised. Additionally, a detailed description of the analysis strategies, data collection and sampling methods is provided for each research phase for the understanding of the research project structure in its entirety.

- Chapter 4 – Phase 1: Study 1 – Exploring Important Needs for Home Happiness

Chapter 4 discusses the planning, development, results and findings for Study 1, including a preliminary study, which tested the appropriateness of two different methods for data collection. The results present important needs for home happiness and possible avenues of satisfying several of these simultaneously through ‘designing for home happiness’.

- Chapter 5 – Phase 2: Study 2 – Initial Theory Building for Designing for Home Happiness

The next chapter firstly presents a pilot study that tested the use of art therapy techniques in a research context to expand the most promising findings from Study 1 and develop applicable Art Therapy-led workshops towards this aim in Study 2. Following this, it outlines the procedures, findings and results for finalised Study 2 workshops, including the successful deployment of art therapy techniques in creating an initial theory for home happiness.

- Chapter 6 – Phase 3, Part 1: Developing the Process and Tools for Designing for Home Happiness

Chapter 6 explains how the initial theory, resulting from Study 2 findings, led to the creation of the preliminary Designing for Happy Homes Framework, including the Happy Home

Design Tools and process. In detail, it describes how the initial theory was further verified and used to prototype a process and design tools for ‘designing for home happiness’ to be launched in subsequent Main Studies.

- Chapter 7 – Phase 3, Part 2: Main Studies – Designing for Happiness in the Home

The subsequent chapter describes the further development and deployment of the Designing for Home Happiness Framework, such as design tools and corresponding process, through a pilot and two Main Studies, and the findings that followed. It discusses a pilot study used to trial an initial version of this, including the results and subsequent actions motivated by these. Main Studies’ findings that indicate it having strong potential for supporting the creation of home happiness designs and future sustainable lifestyles, and positive implications for Service Design are also presented.

- Chapter 8 – Discussions

This chapter investigates additional topics that arose over the course of the research project. Included are exploratory issues such as ‘What contexts warrant the use of art therapy techniques?’ and ‘Are art therapy techniques and codesign methods compatible?’, and more practical discussions, including ‘The Transferability of the Happy-Homes Workshops’. Additionally, overall future implications of employing the Designing for Home Happiness Framework and art therapy techniques within Service Design, for ‘designing for home happiness’ and the conceptualisation of social innovations are discussed.

- Chapter 9 – Conclusions

The final chapter presents a summary of all the results and findings from previous chapters. Through this, it illustrates how the research aim and objectives were achieved and how the research questions were addressed. The overall conclusions of this research and its contribution to knowledge are also presented, including its limitations and recommendations for future work.

## 2 Literature Review

This chapter presents findings from the literature review, which allowed for the identification of gaps and key authors, providing a greater understanding of the fields relevant to this research. Through this, an initial theory was formulated for tackling the research aim and the primary stages of the research methodology were devised.

### 2.1 The Current Socio-Economic Paradigm and its Effects on Happiness

Happiness is a notoriously difficult concept to define or measure as the meaning differs for every individual both culturally and personally. However, Lyumbomirsky (2007), and Eid and Diener (2004) state that happiness is collectively an experience of positive emotion, such as joy, and conscious evaluation of overall life satisfaction—described as subjective wellbeing in these instances. Seligman’s (2002) definition of ‘authentic happiness’ describes it as *three dimensions* or *criteria of happiness* that can occur sequentially: experience of raw subjective feeling/*pleasure*—*The Pleasant Life*, *engagement* in activities that embody strengths and virtues—*The Good Life*, and using these for a greater purpose to obtain *meaning*—*The Meaningful Life* (Seligman, 2002; Seligman and Royzman, 2003). *The Pleasant Life* refers to savouring happiness as a momentary positive emotion/*pleasure*, such as surprise, brought about through certain interactions unique to everyone or by satisfying biological needs—rest for example. *The Good Life* describes a means of obtaining happiness by engaging one’s strengths (i.e. courage) in enjoyable activities—also referred to as *The Engaged Life* by Csikszentmihalyi (2002). *The Meaningful Life* then illustrates using one’s strengths for a cause greater than personal pleasure to achieve overall life satisfaction. To live a ‘full life’, it is necessary to satisfy all three (Seligman, 2002). Using Seligman’s happiness description, it may be more easily defined and understandable for the purposes of this research; it allows happiness to be explored through behaviour for *happiness as pleasure, engagement and meaning*, applicable to different situations and individual preferences, while taking previous concepts into account.

Notably, there is a tendency to use happiness and wellbeing interchangeably in related literature. For example, Seligman’s authentic happiness resembles Diener et al.’s (2003) definition of subjective wellbeing—the evaluation of one’s life from happiness experienced in the moment and long-term (p. 404)—and The New Economics Foundation’s (2008)

understanding of wellbeing—the ability to feel good and function well in one’s life (pp. 1–2). For this research, happiness is used to refer to long-term happiness, which includes instances of happiness as pleasure, engagement and meaning unless otherwise stated.

With this understanding, recent literature has attributed much of our environmental demise and unhappiness to the Western world’s dominant socio-economic structure. It places rigidity on personal expression through passive consumption of design products (Manzini, 2006; Sanders and Stappers, 2008), can emphasise selfish behaviour and promote negative affect both individually and communally (Kasser *et al.*, 2007, 2014). The following sections highlight this.

### **2.1.1 Social Values**

Happiness can be affected by values proliferated by society. For example, increasingly since the industrialisation of the West, extrinsic values—those that place importance on external rewards, such as material wealth and status (Deci and Ryan, 2000)—has come to dominate the current social paradigm (Kasser, 2006) as the present economic system is reliant on excessive passive consumption from mass synchronised activity (Steigler, 2009). As a result, personal identity and standing is created through this activity (Hamilton, 2010). Environmental campaigns for behaviour change are therefore implicitly asking people to alter their social identity as well as their lifestyle (Hamilton, 2010, p. 571). Nonetheless, material purchasing is no substitute for experiencing life purpose and expectedly creates a negative cycle of consumption and fulfilment (Diener and Seligman, 2004). Kasser and College (2011) suggests that by encouraging intrinsically motivated activities (see Figure 2.1)—those proposed by Self-determination Theory as pursuits which support psychological needs most effectively, such as autonomy and competence, (Ryan and Deci, 2000b; Kasser, 2009) that extrinsic behaviour undermines (Deci, Ryan and Koestner, 1999)—extrinsic ambitions can be reduced.

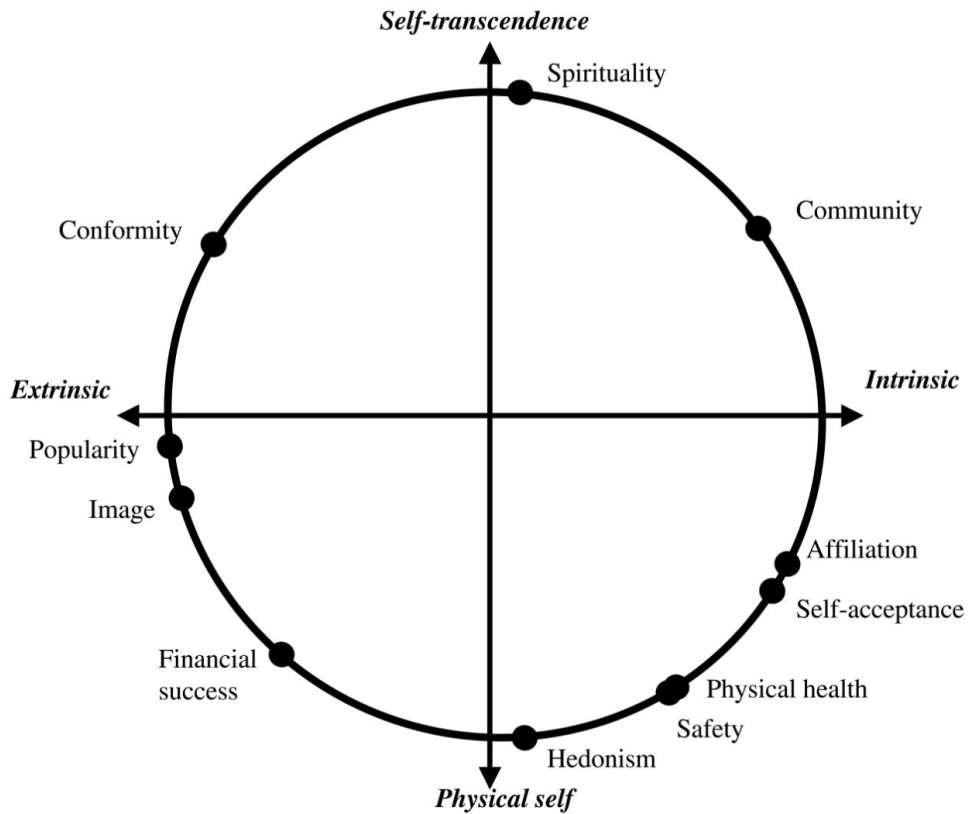


Figure 2.1– Circumplex Model of Extrinsic and Intrinsic Goals (Grouzet et al., 2005, p. 182)

Notably, parallels exist between activities for *The Good Life* and intrinsic actions; behaviours that develop one’s strengths (*The Good Life*) can also fulfil psychological needs satisfied by intrinsic responses. Furthermore, the endorsement of intrinsic values has been linked to more positive environmental opinions and activities (Brown and Kasser, 2005; Crompton and Kasser, 2009). Currently, extrinsic behaviour appears to reduce these (Kasser, 2002).

### 2.1.2 Conflicts between Current Lifestyles and Happiness

Deneulin and McGregor (2009) state that society needs to create collective understandings, arrangements and establishments to cohabitate in a manner that does not cause each other irreversible damage. However, there is tension between behaviours for happiness, and extrinsic views of happiness generated by consumer society. From an extrinsic value perspective, environmental initiatives appear self-sacrificial in nature (Brown and Kasser, 2005, p. 349) and so individuals sharing these views are more likely to exhibit negative attitudes and involvement towards sustainable projects (Crompton and Kasser, 2009).

Correspondingly, related behaviour has been shown to increase self-interest and apathy (Kasser, 2009; Kasser and College, 2011)—correlating with low environmental engagement (Jia *et al.*, 2017)—competitive and manipulative practices, and deplete happiness as they are associated with higher levels of experienced stress, anxiety and depression (Kasser *et al.*, 2007). Additionally, those with strong extrinsic value orientations are less likely to engage in altruistic activities, such as helping others (Vohs, Mead and Goode, 2006), and pleasure derived from this, ‘warm glow’, has been strongly linked with pro-environmental actions (Hartmann *et al.*, 2017). Furthermore, Diener and Seligman (2004) agree that decreased happiness could drive people to focus further on extrinsic goals, exacerbating these issues, as they look to material wealth for meaning.

According to Cummins and Nistico (2002), subjective wellbeing—how happy an individual judges themselves to be in the present—is largely determined by one’s ability to maintain a moderate level of contentment, especially in times of adversity. In this, the most effective shield is cited as supportive and intimate human relationships (Sarason, Sarason and Pierce, 1990). Given that preferences towards extrinsic goals coincide with self-centeredness, it is understandable that social relationships could suffer, and in effect, one’s buffer against negative events. Collectively, corresponding activities of extrinsic values appear to create a negative feedback loop in society, reducing overall wellbeing and happiness.

### **2.1.3 Current Environments and Experiences on Offer**

Excessive consumption of commercial products has created objects and environments that do not facilitate fulfilling and intrinsic endeavours. Sanders and Stappers (2012) propose four levels of creativity, *doing*, *making*, *adapting* and *creating* (see Table 2.1), but many of the goods and services on offer today only stimulate the ‘doing’ level.



Table 2.1– The Four Levels of Everyday Creativity (Sanders and Stapper, 2008)

| <i>Level</i> | <i>Type</i>     | <i>Motivated by</i>                  | <i>Purpose</i>                  | <i>Example</i>                        |
|--------------|-----------------|--------------------------------------|---------------------------------|---------------------------------------|
| 4            | <i>Creating</i> | <i>Inspiration</i>                   | <i>'express my creativity'</i>  | <i>Dreaming up a new dish</i>         |
| 3            | <i>Making</i>   | <i>Asserting my ability or skill</i> | <i>'make with my own hands'</i> | <i>Cooking with a recipe</i>          |
| 2            | <i>Adapting</i> | <i>Appropriation</i>                 | <i>'make things my own'</i>     | <i>Embellishing a ready-made meal</i> |
| 1            | <i>Doing</i>    | <i>Productivity</i>                  | <i>'getting something done'</i> | <i>Organizing my herbs and spices</i> |

In this manner, current designed objects and their corresponding environments appear to only satisfy happiness at the *pleasant life* level of Seligman's authentic happiness—by quickly fulfilling physiological needs (i.e. microwaves prepare meals rapidly) and providing short moments of positive emotion through entertainment (i.e. television) and pleasing aesthetics (i.e. adjustable lighting). They support *hedonic happiness* (Deci and Ryan, 2008b; Veenhoven, 2010) through happiness as *pleasure*, the harmonious feeling from a biological need being met (Nakamura and Csikszentmihalyi, 2002)—*The Pleasant Life*. However, solely fulfilling pleasure needs cannot bring happiness. Life must also have experiences of *enjoyment*, those that contain novelty or a sense of accomplishment, such as developing new skills (Seligman, 2002), supplying *eudaimonic (eudemonic)* happiness (Deci and Ryan, 2008b; Huppert and So, 2013), through *The Good Life*. Accordingly, activities for *The Good Life*, when used for a 'higher purpose', can enable one to reach *The Meaningful Life*, achieving long-term happiness (Seligman, 2002). Similarly, for Scarry (1985) individuals are creative to alleviate worldly pain. Pain is moderated into sustained discomfort, *work*, to translate imagined objects into reality (ibid), resembling activities associated with *The Good life* and *The Meaningful Life*.

However, current consumer transactions rarely allow users space to 'adapt', 'make' or 'create' (Sanders and Stappers, 2008) and therefore do not satisfy human needs holistically to achieve *long-term* happiness. Cummins (2016) qualifies this further by stating that having 'a sense of purpose' is an important component of maintaining adequate subjective wellbeing. Furthermore, Cognitive Evaluative Theory, developed from Self-determination Theory, posits that if situations deliver little choice, they reduce one's sense of autonomy and become less supportive of intrinsic motivation (Deci and Ryan, 2008a). Regardless of the many

choices available to individuals, they are confined to the constraints of those available options, mostly not created by them.

#### **2.1.4 Current Avenues to Happiness and Home Happiness**

Contemporary society's wellbeing is 'product based' (Manzini, 2006, p. 2). This stems from the promise that the democratisation of products—historically only available to the privileged few—would extend free time for everyone. However, these are now associated with 'disabling solutions' where skills and knowledge are grouped into devices, reducing or removing user involvement (ibid). This runs in contrast to Desmet and Pohlmeier's (2013) concept of 'positive design', where design should be a facilitator of human flourishing—it should allow individuals to develop emotionally and mentally, enabling them to live a 'full life'.

Products purchased for home improvement tend to either 'supplement, augment or replace existing media' (Crabtree and Rodden, 2004, p. 213) embedding intelligence into a wide range of everyday appliances for efficiency and convenience. Consequently, they generally fail to provide opportunities for creativity and meaningful engagements associated with happiness, most appearing to only focus on satisfying momentary/hedonic happiness. Furthermore, new technologies tend to be integrated and 'made at home' with already well-established household dynamics (Hughes *et al.*, 2000, p. 28), strengthening unfulfilling processes already in place. Given this, sensing home technologies and digital services do not necessarily improve the home experience from a happiness perspective and, in cases, further reduce user decision making and control. In fact, many smart home solutions are created with only practical and technical functions in mind, ignoring these softer considerations (Pillan and Colombo, 2017). Accordingly, contemporary alterations to home, smart meters for example, can even contribute to current cultural processes already in action, such as excessive consumption (Hargreaves, Nye, and Burgess, 2013).

#### **2.1.5 Section Conclusions**

In current Western society, there is a reliance on product consumption to deliver meaning and life satisfaction. High value is placed on extrinsic gains, such as money and possessions. Correspondingly, identity and wellbeing are commonly pursued through material accumulation. Evidently, this behaviour encourages apathy towards others, as well as higher

levels of stress and depression, and consequently reduces happiness on both a societal and individual level.

Furthermore, contemporary designed objects rarely afford the ‘making’ level of creativity and tend to focus on delivering happiness primarily in a hedonic manner through *The Pleasant Life*. Platforms that satisfy *eudemonic* happiness (*The Good and Meaningful Life*) by facilitating intrinsically motivated tasks are also required to achieve *long-term* happiness. Unfortunately, as the current socio-economic setup is reliant on mass passive consumption, it neglects to provide many possibilities for personal creation to obtain happiness holistically. New home technologies, aimed at improving domestic experiences, tend to become embedded in pre-existing routines, strengthening established avenues to happiness already at play. Evidently, there is a lack of design outcomes that support meaningful and profound *experiences* in everyday home life. There is therefore a need for greater research into design that facilitates happier homes through creative and intrinsically engaging endeavours to foster intrinsic values and create a more empathic, sustainable and happy society.

## **2.2 The Meaning of Home and its Role in Happiness**

The home is an individual’s central resting point, from which she/he moves outward and experiences the world. It evokes multiple meanings, being a complex and significant place for many. The following sub-sections discuss relevant home concepts and how they can contribute to better understandings of exploring and encouraging home happiness.

### **2.2.1 Concepts of Home**

Home is a notoriously difficult subject to define due to its many layers of meaning (Somerville, 1992; Wardhaugh, 1999; Mallett, 2004). Its full conceptualisation is beyond this research’s scope but important aspects are explored to understand its role in promoting happiness and sustainable lifestyles.

#### **2.2.1.1 Home as a Physical Place**

‘Home’ is predominantly used in reference to where people dwell or inhabit (Gillsjö and Schwartz-Barcott, 2011, p. 5). The nature of this has changed dramatically with the rapid mechanisation of the last 200 years. The preindustrial home was an open sociable space in comparison to contemporary standards, serving as a place of work, education, social welfare,

religious practice and as a correctional facility (Hareven, 1991, p. 255). With subsequent urbanisation and industrialisation, home became an enclosed place, centred around providing privacy for its occupants—from each other as well the public (Hareven, 1991). House and home began to be used interchangeably (Rapport, 1995, cited in Moore, p. 210). The interior was split into separate bedrooms for each member and rooms for public activities, such as receiving guests and family activities, creating different ‘territories’ for interaction (Burnett, 1978). The kitchen, previously located outside, was moved inside and large bushes and hedges were commonly erected around the home perimeter for coverage from the outside world, providing the illusion of a more rural setting (Hareven, 1991). Home became idealised as a utopian retreat from the rapid urbanisation of industrialisation (Crabtree and Hemmings, 2001). Although, Israel (2003) and Moore (1984) argue that homes are naturally constructed as safe havens; they are configured into spaces that individuals feel/felt secure in, possibly incorporating qualities from their parents’ house. Nonetheless, family and home were not used interchangeably until the early 19<sup>th</sup> Century. Subsequent widespread development of newly urbanised spaces, led to home becoming synonymous with family—taking on a ‘warmer emotional tone’ (Gillsjö and Schwartz-Barcott, 2011, p. 6). Additionally, ‘comfort’, defined here as ‘feelings of ease and relaxation’, became a significant home quality, made possible by new technologies, such as central heating, lighting and indoor plumbing (Rybczynski, 1987, p. 103). Privacy, comfort, security and family therefore seem to be essential descriptors of the physical home in modern Western society.

Additionally, Smith (1994) explores ‘essential qualities’ that make a house a home. These include, in order of importance: a *suitable physical environment* (i.e. through *homemaking*, such a locating a building that allows for customisation, privacy, security and socialising), existence of *strong social relationships* within and outside the home (with internal connections holding the highest importance), a pleasantly felt context characterised by *warmth* or *comfort*—noted as a multifaceted description which may include actions to create an aesthetically pleasing space and acts of kindness towards other residents—*freedom, self-expression*, and *continuity* (i.e. security of tenure). Moreover, some of these home characteristics become more apparent when they are reported to be lacking, such as security. Maslow’s (1943, 1954) Hierarchy of Needs, in which physiological needs (i.e. shelter) generally require satisfying before psychological (i.e. family) can be pursued (see Figure 2.2), also reflects the important role home plays in meeting physical and mental needs.

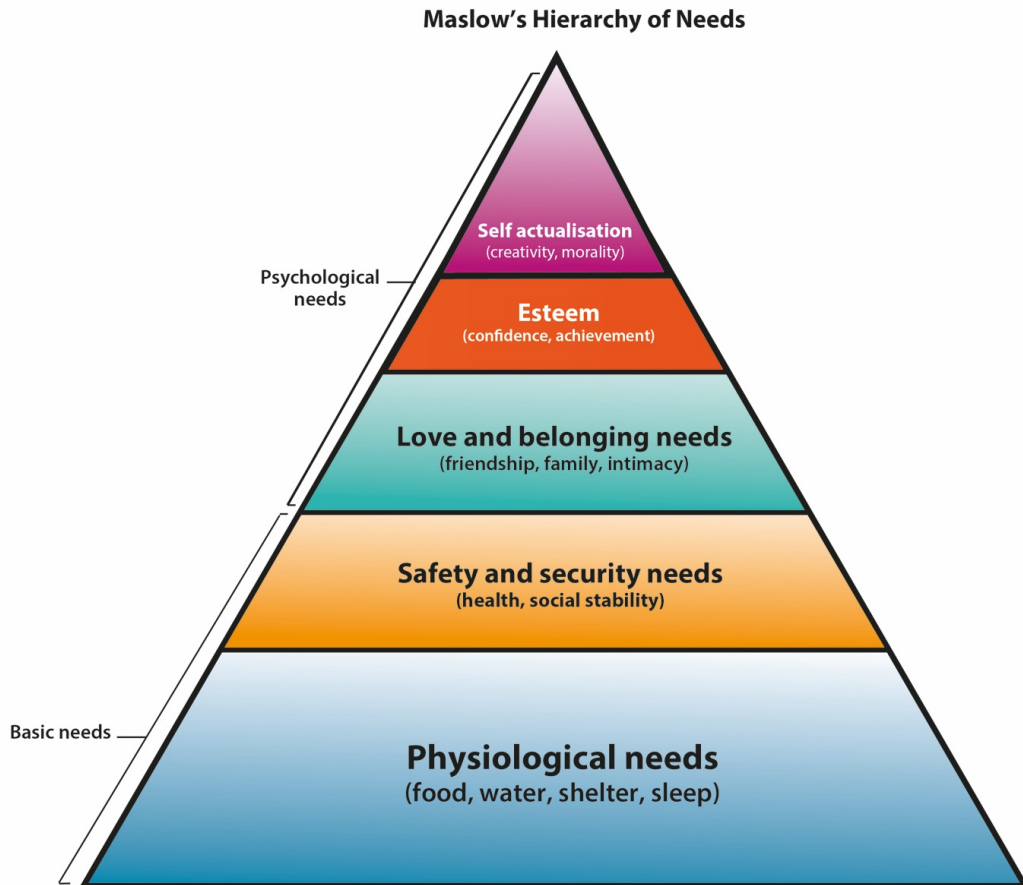


Figure 2.2 – Maslow's (1943, 1954) Hierarchy of Needs

Notably, Maslow (1964, 1970) suggested additional motivational aspects, such as cognitive and aesthetic needs, and transcendence. For simplicity purposes, this research will refer to the stages documented in his original Hierarchy of Needs only, as illustrated in Figure 2.2.

Lastly, Chapman and Hockey (1999) state that people's perception of the ideal home is formulated from a combination of social factors, such as personal experiences with others and family, availability of money, cultural trends (i.e. fashion symbols of class affiliations) and, location and arrangement of work. However, one's 'actual home tends to be our best approximation of our ideal home, under a given set of constraining circumstances' (Tucker, 1994).

### **2.2.1.2 Home as Being in the World**

Relph (1976, p. 20) refers to home as the 'central reference point of human existence'. Similarly, Mugerauer (1994, p. 154) describes home as where 'I am', a focal point where

needs, desires and projections of self are satisfied simultaneously. Correspondingly, Seamon (2014, p. 206) discusses the 'psychological home', where home is the pivotal point for actions, personality conceptualisation, a database for life's historical events and a provider of emotional security. Additionally, Long (2013) discusses the interchangeable use of 'house' and 'home' to indicate how emotions of comfort, security and belonging have become conventional traits of the Western home.

Furthermore, Buttner (1980) suggests that balance between 'horizons of reach' (i.e. routine movements to familiar spaces) and 'home' is required to maintain emotional happiness and identity. This appears to correspond to Heidegger's (1978) concept of 'dwelling' in which to dwell is to exist. Through dwelling the harmonious co-existence or 'simple oneness' is achieved between the 'fourfold'; the relationship between ourselves and others, between us and godlike beings, between water, soil and rock, the sky, clouds and air (1978, p. 352). Dwelling is described as a 'staying with things'—simultaneously experiencing and being in the world (ibid). Furthermore, Kuang-Ming Wu (1993) describes home as the fundamental relationship with others that leads to the creation of oneself. Home is therefore perceived collectively as 'an interplay of house and the world, the intimate and the global, the material and the symbolic' (Long, 2013, p. 335). It is how we connect the experience of being at home to a physical structure (Blunt and Dowling, 2006).

### **2.2.1.3 Home as an Expression of Self**

Extensive research on consumer practices has shown that material objects are used to define and communicate self-identity (Ball and Tasaki, 1992; Belk, 1992; Kleine, Kleine and Allen, 1995; Kleine and Baker, 2004). As a result, these artefacts, facilitate attachment between home and the occupiers, transforming it from a physical shelter into space of personal and emotional significance (Jacobs and Malpas, 2013). For example, 'The showcase of the self refers to the human tendency to gather, arrange and display artefacts of emotional, historical and social relevance in the home to develop a personal representation within a particular social context (Cristoforetti, Gennai and Rodeschini, 2011). Notably, the owners tend to behave similarly to the cultural and social meanings the objects signify (Goffman, 1956; Rubinstein, 1989). Furthermore, the arrangement of family photographs and/or preowned or gifted artefacts from loved ones can be employed in this context to create implicit links between the self and others, emphasising feelings of belonging (Rose, 2003). In this manner,

homes allow us to manage our fragile comprehensions of existence, strengthening social and cultural identity (Tuan, 1980), creating 'a situation for living' (Casey, 2009) and self-configuration (Smith, Light and Roberts, 1998). The term 'psychological home', in particular, attests to this process in which household members actively use available resources to reflect and mediate a sense and extension of self (Sigmon, Whitcomb and Synder, 2002). Resultantly, homes provide emotional reference points for existence (Sixsmith, 1986), 'a shelter for those things that make life meaningful' (Csikszentmihalyi and Rochberg-halton, 1981, p. 139), a reminder of attributes we respect and those we feel we are lacking (De Botton, 2006), exhibiting 'cultural norms and individual fantasies' (Rapport and Dawson, 1998, p. 8). Through these self-identity practices individuals create a deep attachment to place and conceive of *home* (Proshansky, Fabian and Kaminoff, 1983; Twigger-Ross and Uzzell, 1996).

However, the happiness benefits of these home-making actions, such as accumulation and arrangement of meaningful objects, can be compromised when followed through to excess, resulting in 'clutter' (Roster, Ferrari and Jurkat, 2016). Representative of 'a disorganized life and a fragmented sense of self' (Belk, Yong Seo and Li, 2007), clutter can interfere with home happiness by disrupting actions for self-expression and everyday personal care (Roster, Ferrari and Jurkat, 2016), an increasingly growing problem in this age of 'many things'.

#### **2.2.1.4 Home as a Dynamic, Influential and Evolving Environment**

Our conceptions of self are in constant flux, and so too are homes (Williams, 2002). Both Massey (2005) and Ingold (2011) sees places as dynamic products of interweaving practices between objects and people. As we gain identity through domestic fashioning and interaction, home is also remade through each engagement (Cutchin, 1997). It is a continuously evolving space consisting of dialectic processes that are constituted by the contrast between home (resting point) and journey, the private and the public, and its personalisation (Dovey, 1985). Home is therefore 'fundamentally dynamic and process oriented' (Dovey, 1985, p. 48), continuously being made emotionally through formulation and development of domestic social relationships, and physically by creating new material structures and displays of artefacts (Blunt and Dowling, 2006). Accordingly, 'home is lived'; there are implicit social rules that direct appropriate actions to continuously reaffirm a house as a home (Wood and Beck, 1994).

On psychological level, home not only solidifies one's self, it also allows it to evolve (Cooper, 1974). Through acts of personalisation 'natures of the self' are revealed, allowing them to be modified and developed in accordance with one's personal ideals (ibid). Home is therefore a place of learning, particularly for children, to discover and negotiate social normalities (i.e. sex role disparities) and ways of delivering needs through environmental configuration (Proshansky, Fabian and Kaminoff, 1983). Furthermore, manipulations of home spaces motivate the type of interactions that take place, and how individuals think and feel in them (Gosling *et al.*, 2002; Gosling, Gifford and McCunn, 2013). For example, the physical layout and furniture of a room may encourage either food preparation (i.e. kitchen arrangement) or socialising/relaxation (i.e. living room configuration). Additionally, objects of personal significance, such as art, family photos or holiday memorabilia, can encourage feelings of connection and intimacy with others (Gifford, 2007). Acknowledging 'home' as a space of development and influence in constant transition enables us to imagine happier and more sustainable home contingencies.

### **2.2.2 Home as a Complex System and Previous Home Investigations**

As a place comprised of many evolving dialectic practices of its occupants, contained objects and society (Dovey, 1985; Korosec-Serfaty, 1985; Després, 1991; Jackson, 1995; Massey, 2005; Ingold, 2011), home is a complex system. It is a condition of the interactions occurring within it (Jackson, 1995). Recent research initiatives to explore and/or change the home environment/system/dynamics have come from technological or built environment perspectives where *home happiness actions* are neglected or are not the focus.

Technologically focused investigations to improve sustainability and/or wellbeing in this context tend to briefly describe home happiness as part of bigger research projects examining subjects, such as device usage and meaning-making in domestic routines (LEEDR (Low Effort Energy Demand Reduction) project, 2014; Pink, Leder Mackley and Morosanu, 2015), home technology for wellbeing (Dewsbury and Edge, 2001; Dewsbury, Taylor and Edge, 2001), and home values (Haines *et al.*, 2007). For example, LEEDR research project looked at how people moved around and interacted with technology in their homes. Results from this included some social rationales for home practices, such as 'to make home feel right' (Leder Mackley and Pink, 2013). However, happiness was not the priority in this research and focusing on technological use will not cover all home happiness facilitators—understood



here as what enables inhabitants to fulfil basic and psychological needs. As evidenced by research investigating user home values where participants captured images of significant themes, only 17.5% of the returned photographs included technology, with most comprising illustrations of people and memories (Haines *et al.*, 2007). Additionally, of the things that satisfied safety and security needs, 64% were non-technological—human support for example (*ibid*). Under a happiness perspective, it is therefore necessary to consider other aspects supporting home happiness, such as social relationships, and how they are facilitated or not in this context.

Furthermore, other home technology investigations imply but do not discuss home happiness when examining household patterns (Crabtree, 2003; Crabtree *et al.*, 2002; Hughes *et al.*, 2000; Mateas *et al.*, 1996; O'Brien and Rodden, 1997; O'Brien *et al.*, 1999; Rodden *et al.*, 2004; Venkatesh, 1996), disrupting them (Gaver *et al.* 2004), home evolution (Rodden and Benford, 2003), technology adoption (Frohlich and Kraut, 2003) or needs of elderly inhabitants (Lundström, Järpe and Verikas, 2016). For instance, Gaver *et al.*'s (2004) exploration of 'ludic activities'—those motivated by intrigue instead of utility—appears to encourage happiness as *pleasure* (*i.e.* curiosity).

Within the built environment literature, happiness is mainly represented by health and wellbeing discussions (Robertson *et al.*, 2014; UK Green Building Council, 2016), insinuated by investigating building health benefits but not stated (Brownson *et al.*, 2009; Evans, 2003; Leyden, 2003; Pfauth and Abushousheh, 2015; Roster *et al.*, 2016; Srinivasan *et al.*, 2003) or excluded in investigating sustainable building alterations (Lazarus, 2009; Anastaselos *et al.*, 2016). Relatedly, corresponding sustainable interventions have faced resistance. For example, 50% of UK households within a community refused free retrofit packages because of perceived lifestyle disruption and inconvenience (Affinity Sutton, 2011). Self-determination Theory posits that individuals are driven to satisfy basic psychological needs (Deci, 2005; Ryan and Deci, 2000). Interfering with routines disturbs this, decreasing happiness. Sustainable interventions must therefore offer alternatives that satisfy needs in more fulfilling ways (Hofstetter, Madjar and Ozawa, 2006, p. 110), making this transparent to prospective users.

Lastly, the Sustainable Communities Initiatives (SCI)—a charity creating and supporting events for UK communities around environmental topics—takes a more social angle

(Sustainable Communities Initiatives, 2015). Although, its influence on home happiness has not been investigated. Furthermore, 40% of happiness variance is estimated to be controlled through daily interactions (Lyubomirsky, 2007). Given home's centrality, it should facilitate happiness activities. Consequently, all relevant home dynamics—including interactions with people, objects and the surrounding home environment—should be investigated holistically and systemically when viewed from a happiness perspective to conceptualise and embed happy home experiences.

### **2.2.3 What makes Home a Family Home?**

Home denotes idealistic qualities of kinship relationships such as intimacy, emotional support and loyalty (Ribbens McCarthy and Rosalind, 2011). Traditionally, 'family' evokes expectations of kinship through formal alliances centred on procreation (i.e. marriage) and/or pre-existing lines of descent. Terms 'family' and 'home' are frequently used interchangeably; 'home' may be used to describe houses of close relatives while including one's current residence (ibid). Public arenas, such as advertising, housing policy and mainstream culture, describe ideal homes as detached suburban owner-occupied houses with heterosexual nuclear families (Blunt and Dowling, 2006, p. 101). However, not all family occupied accommodation evoke 'home'. 'Home' is intuitively known by those who identify as part of a family, forming part of self-identity (ibid).

Furthermore, growing diversities of cohabiting situations, parental structures and conception technologies, are causing traditional notions of family, father-mother-child units, to be increasingly less common in Western society (Saunders and Williams, 1988; Beck-Gernsheim, 2002). Individuals are now said to choose their own biographies (Beck, 1992; Giddens, 1992) and no longer necessarily follow predefined nuclear family life trajectories, such as engagement, marriage and children (Duncan and Phillips, 2008). Instead, practices denoting love and support are consciously used to develop and sustain relationships of significance, irrespective of pre-given biological or kinship status, giving way to 'families of choice' (ibid). Consequently, uncritical usages of 'family' as a noun may lead to popular, and arguably out-dated, connotations being reinforced (Morgan, 1996; Beck-Gernsheim, 2002). To avoid this, one strategy is to use 'family' as an adjective instead, describing parenthood and kinship-like practices, such as preparing food or bathing children etc. (Morgan, 1996). With the evolution of what constitutes 'family', family practices could be seen to refer to

activities consciously undertaken to create and sustain relationships of intimacy and love. Morgan (1996) agrees that family is not a static entity and is actively created. For this research's purposes, family homes are conceptualised as dwellings where inhabitants actively engage in 'family practices' regularly to maintain intimate and nurturing social relationships.

#### **2.2.4 Section Conclusions**

Home plays many roles in daily life. It provides shelter and a place to rest, offering an extension of the self, portraying personal hopes and ideals. It is an evolving space full of complex dialectic practices between individuals, objects and society. It can be a private 'haven' where identity is constructed, requiring sensitivity. However, previous research to explore and improve home experience/sustainability/wellbeing have not considered or focused on home happiness. This is significant because a high proportion of experienced happiness is dependent on daily actions undertaken, and home, by playing a central role in everyday life, it is influential in this. Enabling satisfaction of fundamental needs, it can be a happiness facilitator. Consequently, taking a systemic approach—by investigating collective people and object interactions that comprise *home*—home actions that support home happiness could be identified. There is therefore scope to investigate home dynamics from this complex system and long-term happiness perspective to create new knowledge in supporting happiness and sustainability in this area.

Finally, traditional notions of family homes are becoming less relevant today. Contemporary family homes are more commonly created through intentional and regulatory care and support practices between consenting cohabiting individuals, living with or without children. By acknowledging and examining these interactions, ways of nurturing home happiness in a large variety of living scenarios can be considered.

### **2.3 Creativity**

Learnt knowledge is constantly changing within societies through creativity. The prevalent view of creativity is individualistic (Montuori and Donnelly, 2013), gender-oriented (Eisler, Donnelly and Montuori, 2016) and exclusive to certain social classes (Barron, Montuori and Barron, 1997); it attests to the creation of valuable and novel concepts by male creative geniuses in solidary surroundings. However, it is transforming to illustrate cultural and societal change, collation and continuously evolution (Montuori, 2017) through

collaboration and social interactions (Pachucki, Lena and Tepper, 2010)—also known as ‘everyday creativity’ (Richards, 2007). The following sub-sections investigate this understanding of creativity in relation to human nature, cultural development, emotions, art practice and happiness, to understand how this concept could contribute to happier homes.

### **2.3.1 Human Nature**

‘Man is distinguished from other animals by his imaginative gifts’ (Bronowski, 1973, p. 19). Creativity is a unique human quality; environments are consciously reshaped to better suit needs (Csikszentmihalyi, 1997, p. 6), and artefacts are generated to achieve certain goals and/or status, leading to art (Pinker, 2003, p. 5). Humans are driven towards ‘creative free expression’ (Chomsky, 1975, p. 29). It is an instinctive activity, having several universal characteristics, such as *representation* and *emotional saturation*, within every culture (Dutton, 2003). It is an illustration of the human imagination’s capabilities; art documents experiences through symbolism to increase understanding and manipulate future events (Steinhart, 2004). Humans evolved with an ‘intrinsic gratification’ for creating abstract scenarios through *play* (Carruthers, 2002), a fundamental component of creativity (Vygotsky, 1931).

Dissanayake (1980, p. 403) contends that less than a hundred years ago art was used publicly and privately to make things significant, having similar importance as other utilitarian needs, before becoming more segregated into formalised disciplines. Furthermore, Dissanayake (1995) argues ‘making special’ is a necessary evolutionary trait as all such qualities tend to bring about pleasant experiences. Tooby and Cosmides (2003) qualify this by describing humans as natural artists; in early life, self-motivated experiences underpinned by aesthetic instincts are the ‘original artistic medium’ used to nurture psychological capacities. Mithen (1996) also states that primitive humans possessed all necessary qualities for art and that the recent ‘cultural explosion’ is due to recent technological advances rather than newly developed capabilities, allowing for rapid knowledge sharing and converging. Creativity is how objects or those related to events are made ‘aesthetic’ to emphasise life meaning (Dissanayake, 1980, p. 404).

### **2.3.2 Cultural Development and Representation**

Creativity within culture is comparable to the process of biological evolution through genetic modification (Csikszentmihalyi, 1997, p. 7). Different memes enter the cultural arena and

dated conventions are modified or lost through creative processes, but, importantly, are not always societally advantageous. Historically, prevalent cultures are conservative in the incorporation of new ideas to retain dominance (Csikszentmihalyi, 1997, p. 28). Consequently, an adherence to ‘the guardians of tradition’ and holders of ‘real knowledge’ is encouraged (Apple, 1996, p. 40), such as the promotion of passive material consumption in current Western society. Additionally, Hickman (2016) differentiates culture into *planktonic*—rapidly changeable and influenced by attitudes such as style trends—and *benthonic*—generally consistent and created by intrinsic beliefs from philosophy and religion. Accordingly, current consumer practices relate more to planktonic culture (i.e. fashion) with some benthonic aspects (i.e. prosperity), illustrating some malleability towards more socially beneficial endeavours.

Art, in particular, is representative of cultural variations as it is not a concrete concept, decided by current societal norms that are changeable (Hickman, 2016). Furthermore, the arts more generally offer a visual insight into societal harmonies, frictions or discrepancies (Carroll, 2006). To challenge present consumerist values and resulting home practices, art creation and its examination could provide a means of promoting creativity and investigating current home routine conditions. As put by Dissanayake (1980), ‘man must become his own artist’ to create personal ‘meanings’, which does not necessarily complement those currently practiced (p. 404).

### **2.3.3 Emotions**

Our culture is taken up with an all-pervasive pretence at rational, data-driven, decision making... Any form of emotional engagement is frowned upon... In sustainability we need to go further; to create a capability to allow emotional experiences to unleash the imagination, stimulate creative processes and break us out of incremental extrapolation (Zammit-Lucia, 2013)

By predominantly rationalising actions, individuals can become less empathic towards others. Research exploring the effects of mechanical reasoning tasks on social responses suggests that it is difficult for people to engage in these two modes of thinking simultaneously as each deactivates opposing brain areas (Jack *et al.*, 2012, p. 385). Furthermore, Averill (2005) understands emotions as both mediators and products of creativity. Feelings get attached to events as they are experienced and this allows associations between seemingly separate concepts and places to generate similar emotions within memories (2005, p. 225). This is

dictated by personal cultural and existential beliefs, deciphering how one should feel, react and behave in certain scenarios (ibid). However, Averill asserts that those possessing high *emotional creativity*—which can be developed during childhood (2009)—can fashion novel and authentic emotions to achieve goals, regardless of societal expectation (2005, p. 233); they also are more likely to become intrinsically motivated (Oriol *et al.*, 2016) and be artistically creative (Averill and Thomas-Knowles, 1991). Additionally, acts of creativity can lead to *flow* experiences, where participants become completely *engaged* in a task—related to *happiness as engagement*—challenges are met with confidence, self-consciousness is gone or greatly reduced and time becomes positively distorted—bringing thoughts, feelings and behaviours harmoniously together (Csikszentmihalyi, 2002). Relatedly, intrinsic motivation is associated with positive emotions (Black and Deci, 2000; Álvarez, Balaguer and Castillo, 2009) and necessary for creating moments of *flow* (Csikszentmihalyi, 1996; Hennessey and Amabile, 2010). Correspondingly, creative moments tend to foster intrinsic motivation (Amabile, 1996; Eisenberger and Rhoades, 2001). Consequently, genuine emotional expression can lead to creativity and creative activities can allow authentic feelings to surface, creating greater self-awareness and supporting intrinsic values.

#### **2.3.4 Artistic Practice**

‘The aim of art is not to represent the outward appearance of things, but their inward significance’ (Aristotle)

Artistic practice is used in Art Therapy—a form of psychotherapy for communication, and emotional awareness and healing (Malchiodi, 2007; BAAT (British Association of Art Therapists), 2015)—and sometimes in ‘imagework’—a form of ethnography where participants reflectively explore their imagination (Pink, 2004)—to elicit things difficult to verbalise. Latta (1995) agrees that art can illustrate the mind’s interpretation of the world. Additionally, engagement in artistic activities has positive impacts on emotional wellbeing by allowing for immediate and authentic connection with one’s feelings (Mundet-Bolos, Fuentes-Pelaez and Pastor, 2017). Furthermore, research using brain-scan imagery has shown that creating mood drawings activates corresponding neurological areas for emotions depicted (Lusebrink and Alto, 2004). This suggests that art making can be used to explore subjective experiences, including home happiness.

Moreover, arts engagement has been shown to increase mindfulness as they embody current cultural values and can support their recognition and re-evaluation (Mission Models Money and Common Cause, 2013). Lastly, a healthy self is said to be maintained through artistic practice as it requires empathy, experiencing the world from others' perspectives (Kohut, 1984, p. 82; Warner, 2012), to create something original or to understand artwork. Art is understanding the self and others—a platform to seek and express new knowledge—in which unique personal truths can be visualised and shared (Warner, 2012, p. 69).

### **2.3.5 Happiness**

According to Nakamura and Csikszentmihalyi (2002), happiness is achieved through *flow*—previously explained in Section 2.3.3. Furthermore, art making in Art Therapy encourages experiences of *flow* (Voytilla, 2006). Additionally, Wright and Pascoe (2015) demonstrated how arts practices could support happiness: acts of making creates *connections*; they are an *active* form of enquiry; they require one to *take notice* and be aesthetically sensitive; they necessitate continuous *learning* to better understanding one's world through reflection and expression; and result in *giving* participants or viewers art forms, such as providing skills, processes and new meanings. Hickman (2016) agrees that denying individuals opportunities to create or enjoy art could lead to unhappiness, it being an intrinsic part of human nature.

Furthermore, Maslow's Hierarchy of Needs—where creativity is depicted at the top under self-actualisation—suggests that it may be difficult to be creative before attending to basic needs, food for example (see Figure 2.2). As previously suggested, many contemporary lifestyles, including those at home, appear to fulfil basic needs extremely well by focusing on *happiness as pleasure* (The Pleasant Life) but have resulted in many home experiences that discourage *happiness as engagement* (The Good Life) and *meaning* (The Meaningful Life). Solely providing *pleasant* home moments cannot bring long-term happiness as this subsequently creates contexts of efficiency and evanescent, lacking emotional depth. Life must also have experiences of *enjoyment*, those that contain novelty, accomplishments (i.e. developing a new skill) and *flow* (Csikszentmihalyi, 2002), which could be facilitated through the home in the same way that many support *happiness as pleasure*. Evidently, current lifestyles of high consumption and productivity do not necessarily correlate with long-term happiness and have been linked to higher levels of depression (Hofstetter, Madjar and Ozawa, 2006).

### **2.3.6 Section Conclusions**

Creativity is an essential part of human existence, used to make meaning, reshape surroundings towards personal needs, create deeper understandings of self and others, heal the mind and find life purpose. At the beginning of the 20<sup>th</sup> Century, art practice became separate from everyday life and this segregation, evidently, has continued into modern times. The current Western socio-economic system seems to discourage individual creativity by promoting passivity and productivity to meet the needs of the consumer economy.

However, to encourage a more empathic and reflective society towards others and world issues, it is necessary to foster and reintroduce the notion of creativity into everyday life. Homes could initiate this process, many of which currently focus on quickly satisfying physiological needs. Opportunities hence lie in investigating how the home context could tackle passivity and unhappiness from high consumption lifestyles through creativity, allowing it to could become a facilitator of engagement, meaning and autonomy.

## **2.4 Design as a Facilitator of Happiness and Creativity**

With the recognition of the interconnectedness of economic, social, cultural and environmental dimensions of the world, development that is sustainable socially as well as environmentally has become a necessary goal. However, despite the promising advancements taking place, design has been mainly left absent from the discourse (Thorpe, 2010). Subsequent sections highlight some recent design developments using relevant literature and suggest further ways design, notably Service Design, and creative design methods, can be used to explore and encourage home happiness.

### **2.4.1 Designing for Happiness**

Facilitating happiness has become a popular design strategy in recent years to, for example, promote more sustainable behaviour (Escobar-Tello, 2016), support wellbeing (Pohlmeyer, 2012; Vaajakallio and Honkonen, 2013), and pleasant experiences (Desmet and Pohlmeier, 2013; Hassenzahl et al., 2013; Lakhota, 2011; Petermans and Pohlmeier, 2014). Evidently, some focus on singular aspects of happiness (i.e. pleasure, engagement or meaning), or wellbeing rather than long-term happiness. Seligman (2011) differentiates wellbeing as a combination of objectively and subjectively reported elements: *positive emotion, engagement, meaning, positive relationships, and accomplishment* (PERMA). Nonetheless, Pohlmeyer



(2012) discusses ‘designing for happiness’ directions using Seligman’s wellbeing theory, such as providing a *source*, *symbol*, *enablement* or *support* for its components. As product-based approaches, they appear to mostly focus on delivering happiness for the individual through single isolated actions and/or associations instead of supporting long-term happiness interactions for multiple people—evidently necessary in a home context. Previous literature has suggested a happy home requires a complex combination of *pleasant*, *engaging* and *meaningful* experiences, which is facilitated by multiple objects, people and scenarios. Furthermore, emphasising the *accomplishment* PERMA component ‘for its own sake’ through design could encourage extrinsically motivated actions, reducing pro-social behaviour and increasing negative affect if promoted to excess.

Moreover, Desmet and Pohlmeyer (2013) describe a ‘positive design’ framework, divided into three areas: *design for pleasure*, *design for virtue* and *design for significance*, adhering to Seligman’s ‘authentic happiness’ theory (discussed in Section 2.1). *Design for pleasure* focuses on triggering positive emotion (The Pleasant Life), and Desmet (2012) identifies 25 supported through product-human interactions. *Design for personal significance* emphasises short and long-term goals achievements, developing strengths (The Good Life) for example, and *design for virtue* encourages virtuous behaviour, such as using these for greater good (The Meaningful Life). ‘Positive design’ should consider all three, differentiated by its primary objective to provide happy moments (Desmet and Pohlmeyer, 2013). Notably, the ‘positive design’ framework is only supportive of Seligman’s happiness theory in the home if each design area is attended to evenly and has a positive impact on all inhabitants. Many homes, full of *design for pleasure* objects, such as televisions and dimmer switches, require equal measures of *design for personal significance* and *design for virtue*, of which they are currently lacking. Notably, attempting to employ the ‘positive design’ framework in designing for home happiness in several homes for multiple individuals simultaneously is challenging, as each inhabitant/household will have different strengths to emphasise (*design for personal significance*), activities they enjoy (*design for pleasure*) or that offer meaning (*design for meaning*).

Hassenzahl et al. (2013) describes another approach in which the fulfilment of a set of needs—*relatedness*, *popularity* etc.—can result in positive experiences through design (p. 22). This suggests that exploring needs specific to home happiness and how these could be

supported through design could facilitate ‘designing for home happiness’. Additionally, Maslow’s Hierarchy of Needs implies that designs for basic needs (i.e. security) might allow a disadvantaged household to devote more time to psychological needs (i.e. development of strengths), gradually moving up the needs pyramid (see Figure 2.2), increasing overall contentment. Consequently, home happiness designs should support all ‘authentic’ happiness aspects, such as *pleasure* (through basic need satisfaction), *engagement* and *meaning* to encompass varying home happiness needs across multiple households.

Furthermore, ‘Design for Happiness’ can support sustainable behaviour; the characteristics of sustainable, and happy societies are complementary, and designed objects and services can influence interactions (sustainable or unsustainable) in social contexts (Escobar-Tello, 2011, 2016). Moreover, the ‘Design for Happiness Framework (DfH)’ illustrates a workshop format for conceptualising relevant design outcomes (ibid). Happier alternatives motivate behaviour change (Hofstetter, Madjar and Ozawa, 2006). Happy individuals also tend to be more caring and cooperative (Diener and Seligman, 2004), and hence more receptive to pro-social activities. Qualifying this further, it is the suggestion that *real* happiness is sustainable and does not interfere with or exploit people, the environment or future generations (O’Brien, 2008).

Sustainable consumption has been key aspect of sustainable development since the late 1980s (Jackson, 2006). Design’s initial role in sustainable development included designing and advertising products that had less environmental impact (i.e. recyclable materials and production) (Thorpe, 2010). However, this assumes ‘informed choice’ where consumers are rational decision makers in a free market governed by individual spending decisions, ignoring the significant influence of public policies, marketing and advertising (ibid). Given this, ‘Design for Happiness’ appears to be a more effective way of encouraging sustainable development by replacing unsustainable social habits with more fulfilling alternatives, transforming social contexts.

Additional prominent design areas relating to ‘designing for happiness’ include: Slow Design, a holistic approach to designing that takes physical and social aspects of design into account to support more sustainable lifestyles (Strauss and Fuad-luke, 2008); product-service systems (PSS), a product and service combined into one system sustainably—the company supplies, maintains and disposes of it (Vezzoli, Kohtala and Srinivasan, 2014) (see Figure

2.3); Experience Design, identifies and facilitates social patterns for positive moments (Hassenzahl *et al.*, 2013); Service Design, explained in forthcoming Section 2.4.2; Design for the Circular Economy, a nonlinear approach to sustainability where the economy relies on renewable energy and eradicates waste through design (The Ellen MacArthur Foundation, 2015) (see Figure 2.4); Emotional Design (Norman, 2004)—also referred to as Design for Emotion (Desmet and Hekkert, 2009)—encourages positive feelings from design interactions; Design for Behaviour Change, facilitates behaviour change through design (Niedderer *et al.*, 2016); Design for Social Innovation, supports new ideas that meet social needs using design (Manzini, 2002); Eco Design, gives special consideration to limit environmental impacts of products throughout their lifecycle (Fuad-Luke, 2002); Design for Sustainability (DfS), incorporates economic, social, environmental and institutional components to support identity formulation beyond consumption (Spangenberg, Fuad-Luke and Blincoe, 2010).

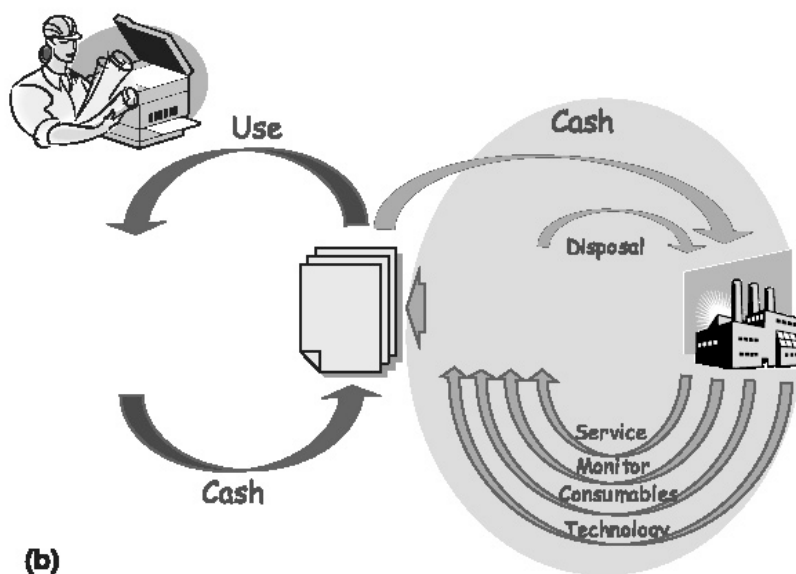


Figure 2.3 –The Product-Service System Process (Baines *et al.*, 2007, p. 5)

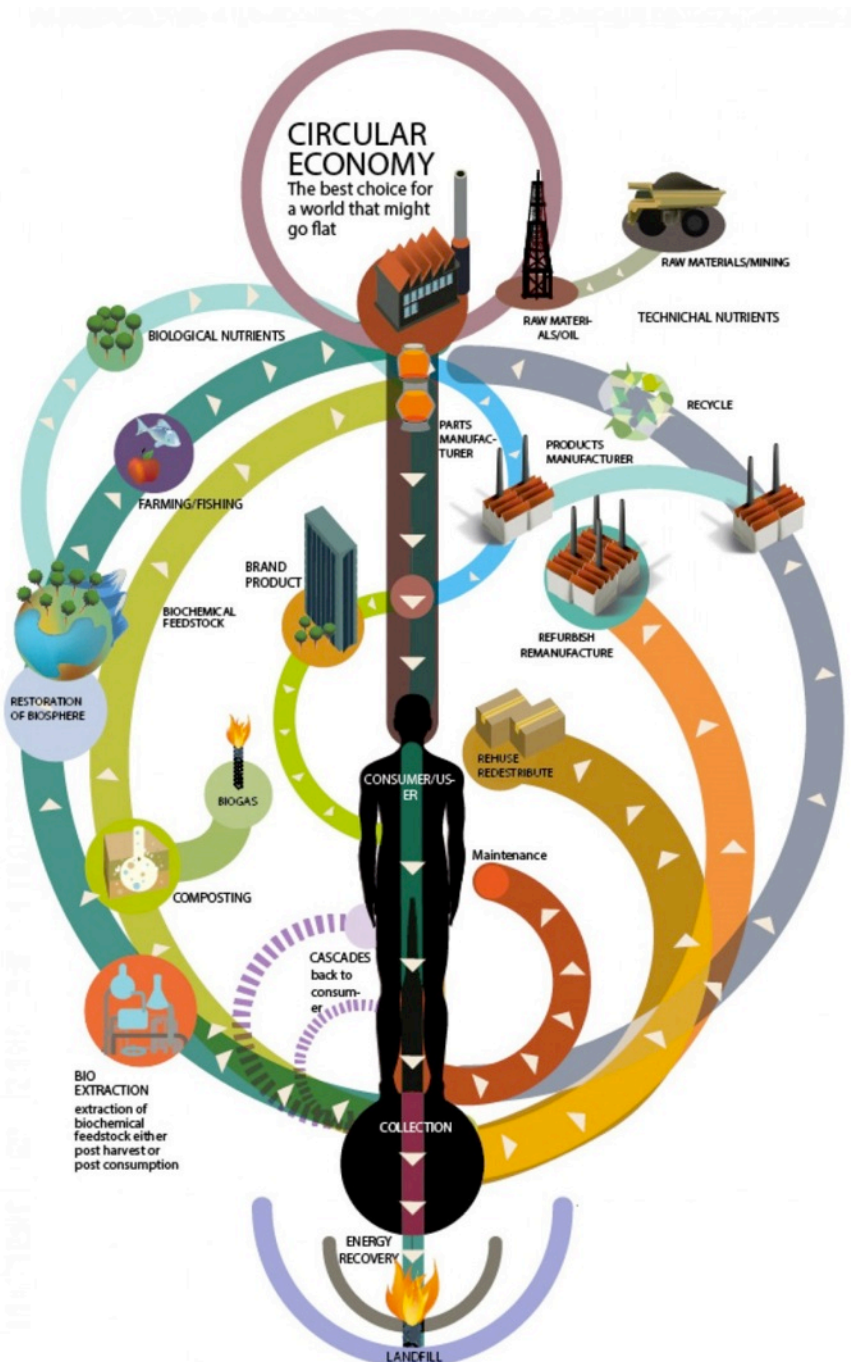


Figure 2.4 – The Circular Economy (Munro, 2013), Used with Permission

Notably, although there are many design areas either related to or employed directly for ‘designing for happiness’, none appear to directly focus on the home—specifically how long-term home happiness can be supported for several individuals through designed PSSs, services or systems. Similarly, while ‘Design for Happiness’ interventions show promise for creating happy and sustainable home design through deployment of the DfH, the characteristics of happy and sustainable societies that guide this framework are yet to be

situated in the home. This clearly illustrates research scope for exploring theories and frameworks relating to ‘designing for *home* happiness’ that supports more sustainable behaviour.

### 2.4.2 Service Design

To challenge current ‘product based wellbeing’, users must become active participants in the design process (Manzini, 2006). Service Design is a relatively ‘new field’ where user engagement is fundamental in creating dynamic and positive service experiences, using tangible and intangible mediums (Stickdorn and Schneider, 2011). Rapidly growing, many sub-disciplines are developing under it. See Figure 2.5 for a general overview of UK service design research.

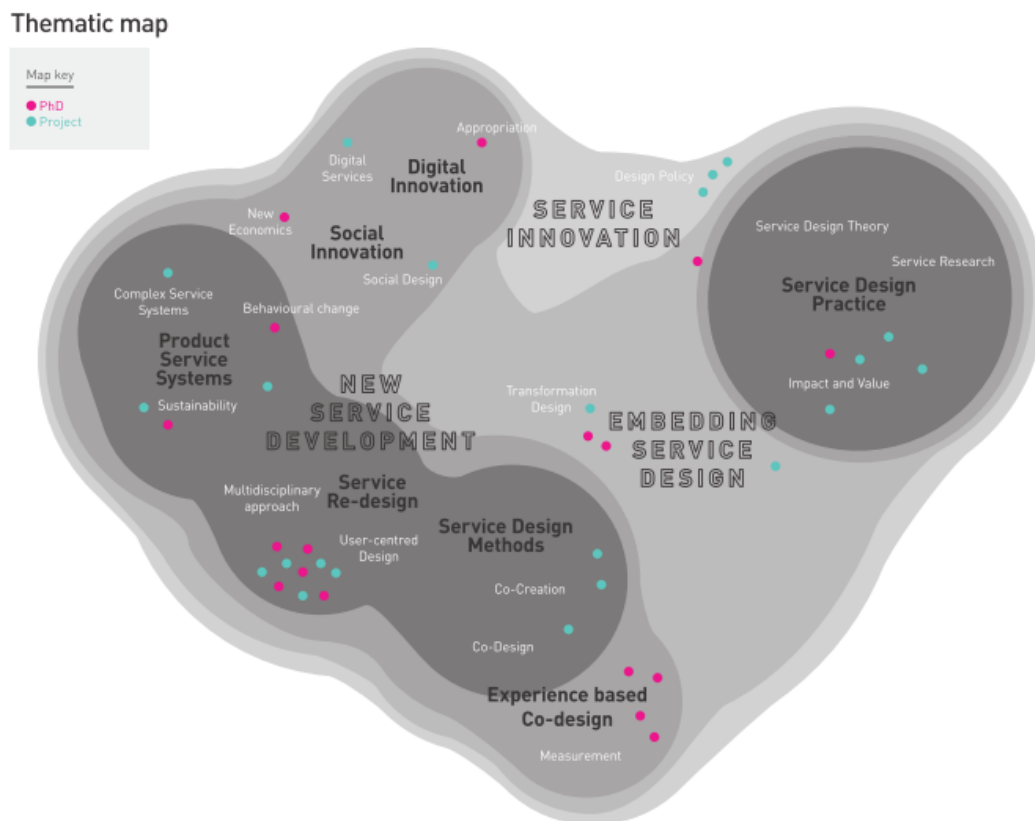


Figure 2.5 – An Overview of All UK Service Design Research Currently Taking Place (Sangiorgi, Prendiville and Ricketts, 2014)

‘Service Design’ previously referred to ‘a form of architecture’ comprising ‘processes rather than bricks and mortar’ (Edvardsson, 1997, p. 31) for conceptualising structures, infrastructures and/or ethos of services using specialised tools (Johnson *et al.*, 2000; Goldstein

*et al.*, 2002). More recently, it elicits an approach to design, a multi-disciplinary meta-level concept for creating systems based on relevant individual needs (Tafel-Viia *et al.*, 2012) where intended users determine/create the service's value and form—usually by involvement in the design process and interactions with the finished product. Service Design takes a user centric perspective, creating systems empathic to user needs while attempting to establish new socio-economic value (Stickdorn and Schneider, 2011). Five general principles of Service Design (*ibid*) are summarised below:

1. User-centred—services should be experienced from the user's perspective
2. Cocreative—all stakeholders should be involved in the development process
3. Sequencing—the service should be illustrated as a succession of connected occurrences
4. Evidencing—intangible services should be depicted through corresponding physical objects
5. Holistic—the entire context for the service should be reviewed

Furthermore, the design of the service can influence the type of interactions that occur in social contexts (Sangiorgi, 2011; Stickdorn and Schneider, 2011). Service Design can encourage particular behaviours by connecting positive experiences to certain transactions, providing initial avenues to gradual cultural change (Burns *et al.*, 2006). For example, in the home this might take the form of a PSS that motivates relaxation, such as a wearable digital watch that communicates stress levels to the living room couch, which, on contact, provides massages to the user, encouraging rest. Correspondingly, Service Design can be means of societal transformation by providing catalysts (services or PSSs) for social change (Sangiorgi, 2011). Being natural systemic and transformative, it offers a viable approach for conceptualising home happiness designs, challenging contemporary lifestyles. However, although service design approaches have been employed to answer issues in and around home life—for example, 'The Knee High Project' systemically explored issues and design opportunities relating to the health and wellbeing of young children from poor London boroughs (Design Council, 2016)—none appear to tackle home happiness directly or through a 'Design for Happiness' approach, such as creating services or PSSs that facilitate

long-term happiness through the promotion of sustainable behaviour. Furthermore, Service Design has many associated tools that can be potentially utilised to inform applicable design concepts within this area—discussed in detail in subsequent Section 2.4.2.1.

#### 2.4.2.1 Service Design Tools Overview

Many different tools that can be employed during a service design process but there are certain ones unique to Service Design. A selection of these tools, chosen for their potential application in ‘designing for home happiness’—such as their ability to identify systems for home happiness and support them through design—are discussed. These are described in relation to the Double Diamond Design Process (Design Council, 2005) (see Figure 2.6), which details some general activities that play a key role in all design procedures.

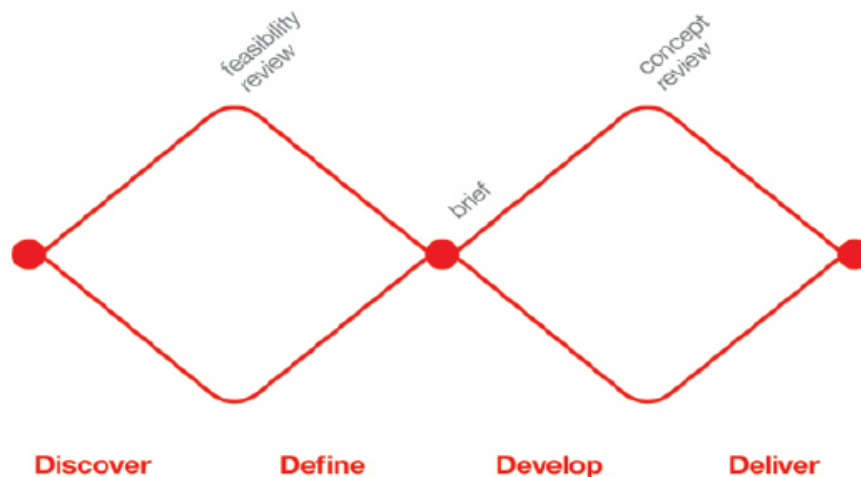


Figure 2.6 – The Double Diamond Design Process (Design Council, 2005)

From this double diamond, the design process can be divided into four distinct phases; *discover*, *define*, *develop* and *deliver* (ibid). The *discover* phase marks the beginning of the design procedure where current knowledge is collated, inspiration for evolving ideas is gathered and the problem is identified (Design Council, 2013). Service design tools commonly used in this phase include, but are not limited to, customer journey maps, service safari and user shadowing.

- **Customer journey maps** provide a high-level overview of everything influencing the user’s experience from their perspective; it visualises the entire customer journey through the service and resulting positive/negative exchanges. This

includes all user contact with the service, known as touchpoints, which involve tangible elements—a kiosk for example—and intangible components—such as customer service from a representative (Stickdorn and Schneider, 2011) (see Figure 2.7).

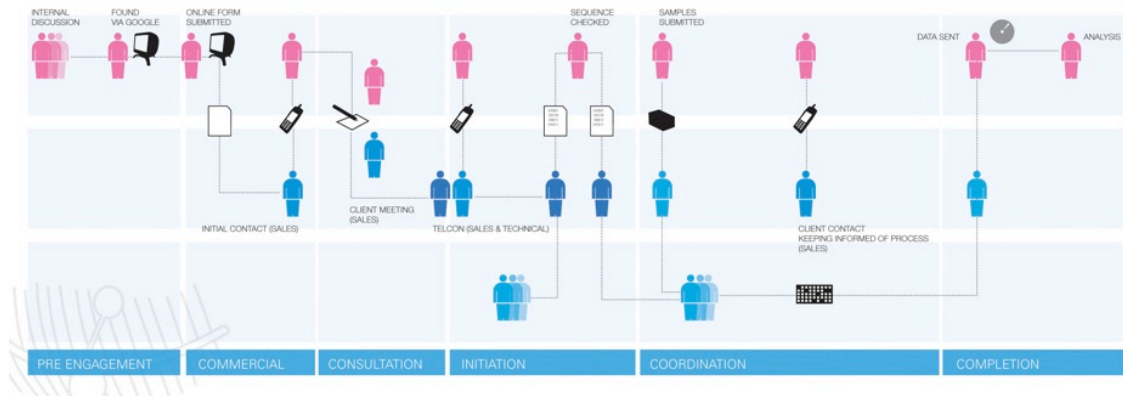


Figure 2.7 – An Example of a Customer Journey Map by Radarstation (Tassi, 2009) [CC BY-NC-ND 4.0](https://creativecommons.org/licenses/by-nc-nd/4.0/)

In the home, this could be used to map out individuals’ use of the space—treating home as a system—to locate potential touchpoints where home happiness designs could be implemented. Although, a deep understanding of home happiness—such activities that facilitate it—is initially necessary to effectively comprehend the significance of such touchpoints and how they could be utilised by design, which, evidently, is not the purpose or approach of customer journey maps. This suggests a need for supplementary steps before employing this tool when ‘designing for home happiness’. Notably, customer journey maps could also be employed in the *develop* phase to understand and develop how individuals might interact with emerging design concepts in the home, using case study evidence or drawing on one’s personal home experiences. Similar service design techniques include system mapping—providing an objective visual description of a system’s organisation—and actors maps—a graph that represents service systems from particular perspectives (Morelli and Tollestrup, 2006). As this research examines collective home happiness, the customer journey map is deemed a more suitable approach; it enables the visualisation of home interactions with a service design from *subjective* perspectives of *multiple* users, such as how objects and other individuals shape home experiences through a service concept. However, before customer journey maps can be utilised in this manner a preliminary service concept



must be conceptualised for home happiness, which seems to require additional methods that allow for its extensive understanding.

- **Service safari** involves recording one's experience of another service, through writing, photography or video, by witnessing it first-hand (Design Council, 2013), used to understand what makes a good or bad service from user perspectives (Stickdorn and Schneider, 2011).

For this research, this could include documenting one's good and bad home moments from the past or present—carefully analysing all contributing factors, such as individuals and designed objects—to understand what creates happy homes. In this way, it presents a possible sensitising tool for designers, allowing them to relate their personal experiences to the subject, building empathy and supporting 'design for home happiness'. Nonetheless, as personal biases will inevitably shape personal views and opinions of home happiness experiences, it is important to contrast these against theories explaining this subject—pointing to a requirement for other exploratory methods for comprising these.

- **User shadowing** involves closely observing users directly, documenting results using field notes, drawings, images or captured video to develop a better understanding of their experiences and related problems (Design Council, 2013).

When investigating home, this could include watching people in their home, taking note of positive and negative exchanges as they occur. Again, this method is subject to personal biases influencing outcomes, such as perception of home happiness, and could also benefit from the utilisation of theories and frameworks explaining home happiness to guide interpretations of home interactions. Collectively, customer journey maps, service safaris and user shadowing emphasise a user-centred approach; they employ user perspectives to inform emerging design concepts. Nevertheless, in order to be effective in this context, additional methods appear needed that conceptualise theories for home happiness to both inform initial service concepts and guide analysis of related household behaviour.

The *define* stage includes solidifying and organising results from the previous step to establish the design problem, creating a design brief—a formal document clearly stating issues to be addressed in the service design process (ibid). The design brief for this research

has already been set; to create home happiness design concepts within the allocated PhD timeframe, using available resources. Consequently, applicable service design approaches are to be employed in the *develop* stage of this research project. Nonetheless, service design methods commonly used in the *define* step could benefit the conceptualising of relevant concepts, personas and offerings maps for example.

- **Personas** are detailed profiles of fictional users drawn from prior research of relevant customer personalities and behaviours, providing a range of different perspectives on a service and its impacts on participants (Long, 2009).

This method can facilitate understandings of how household members might interact with preliminary design concepts to evaluate and locate the most promising for future development. In order to develop and utilise personas for ‘designing for home happiness’, deep understandings of happiness home needs and activities are necessary. They therefore appear to require additional steps—facilitated by supplementary methods—before they can be employed in a ‘designing for home happiness’ process.

- **Offerings maps** are descriptions/communications of service offerings that may appear as words or pictures to aid the implementation of a final design concept or advertise to end users (Sangiorgi, 2004).

This method could be used to formulate and solidify how emerging ideas contribute to home happiness and compete with similar existing designs. However, for offerings maps to be properly utilised in a ‘designing for home happiness’ context, initial design concepts with embedded theories for supporting home happiness need to be conceptualised in previous design stages—again, suggesting a requirement for additional preliminary methods to support the application of service design tools in this process.

The *develop* phase puts the initial design brief through an iterative process of advancing and trialling to prepare and finalise emerging concepts for later implementation (Design Council, 2013). This usually involves testing product or service ideas with end users, employing methods such as service blueprinting, stakeholder maps and experience prototyping.

- **Service blueprints** involve all individuals in a service or process working together to illustrate every aspect of it, allowing the most crucial areas to be identified and critiqued (Bitner, Ostrom and Morgan, 2007; Roman *et al.*, 2009) (see Figure 2.8).

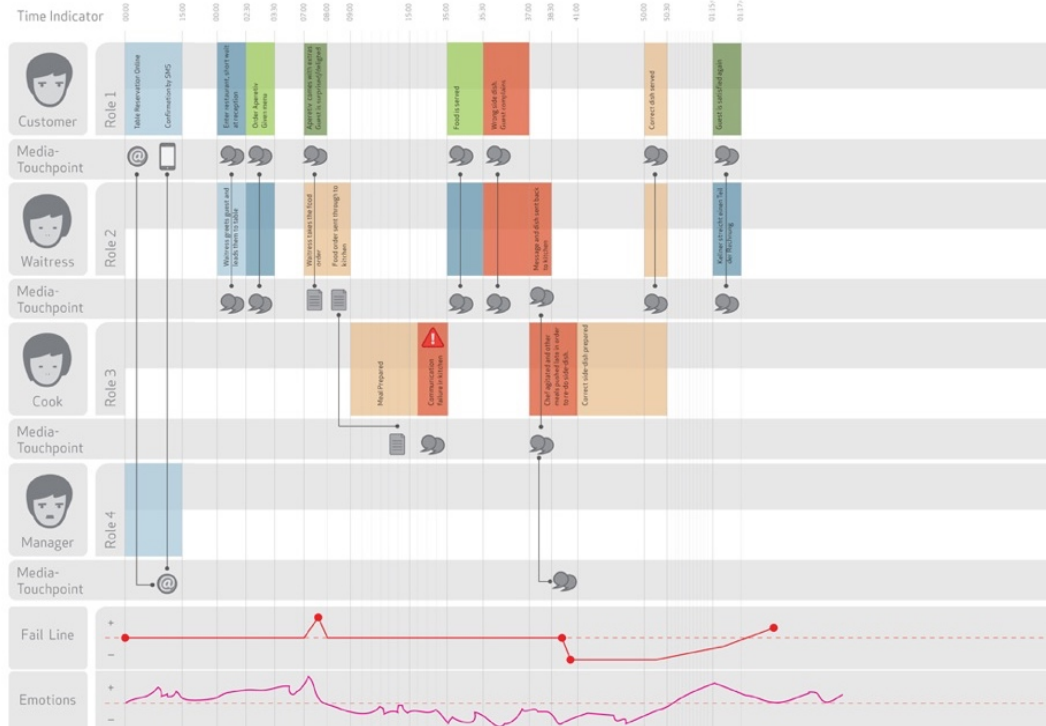


Figure 2.8 – An Example of a Service Blue Print (Roman *et al.*, 2009)

For this research, stakeholders of home happiness designs could create blueprints to locate any necessary alterations to better support home happiness. As evident with other service design tools explored, service blue prints seem only possible as after an initial home happiness design concept has been presented—created from understandings of home happiness enabled by using alternative methods beyond Service Design.

- **Stakeholder maps** illustrate all stakeholders, including their interests and motives, to identify connections and shared concerns so that resources can be used more efficiently (Stickdorn and Schneider, 2011) (see Figure 2.9).

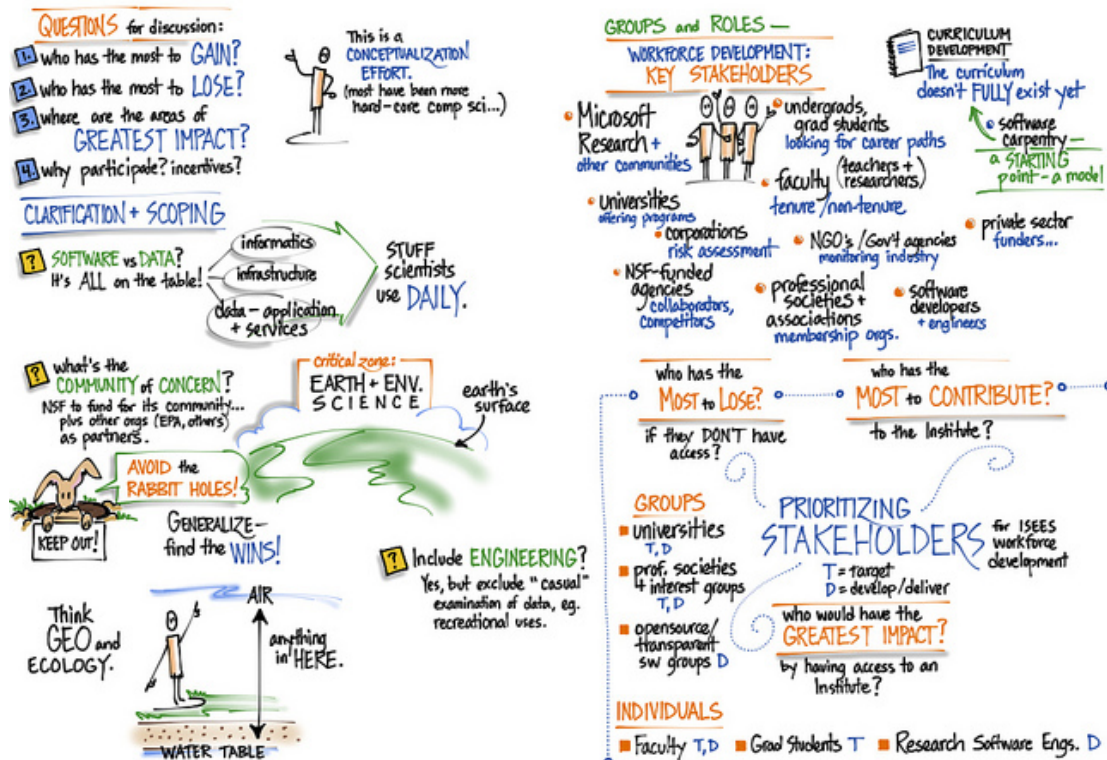


Figure 2.9 – An Example of a Stakeholder Map (Smith, 2013) [CC BY-NC-ND 2.0](https://creativecommons.org/licenses/by-nc-nd/2.0/)

Having established home happiness design concepts using alternative methods (i.e. that enable the exploration of home happiness) to service design tools, as prior discussions suggest, a stakeholder map could be used to highlight overlooked individuals who could benefit from and/or support emerging home happiness designs, such as extended family, neighbours and the surrounding community.

- **Experience prototyping** involves simulating proposed service scenarios using physical touchpoints through rough sketches, concrete models or fully acted out services with relevant users to gather rapid feedback (Buchenau, Francisco and Suri, 2000).

Experience prototyping would prove invaluable during the developmental phases of happy home designs. Following the 'designing for home happiness' process previously alluded to (i.e. conceptualisation with novel creative methods and subsequent development with previously discussed service design tools), this could facilitate an evaluation of their

effectiveness in influencing positive affect, using results to edit mock-ups and enable better solutions.

In the final step, *deliver*, the concept is launched in a real-world context and is testing by enlisting user and stakeholder feedback. This phase commonly employs scenarios.

- **Scenarios**, placing an emphasis on narrative and storytelling, consist of fictional stories, sometimes with accompanying imagery or video, of future situations, which encompass the final service solution (Design Council, 2013).

For this research, this could be achieved using a service storyboard—a sequence of imagery illustrating how all aspects of the service, such as touch points and end-users interactions would manifest in reality (Curtis and Vertelney, 1990)—or, similarly, with a customer journey map. As is the case with previously described service design tools, other creative methods appear necessary to firstly generate home happiness concepts before scenarios, service storyboards or customer journey maps can be employed. Table 2.2 provides an overview of all applicable service design tools for directing and developing home happiness designs.

Table 2.2 – Summary of Service Design Methods for Designing for Home Happiness Organised by Double Diamond Design Process Stages

| Double Diamond Stage | Service Design Tools   |
|----------------------|--|
| 1. Discover          | <ul style="list-style-type: none"> <li>• Customer journey map</li> <li>• Service safari</li> <li>• User shadowing</li> </ul>     |
| 2. Define            | <ul style="list-style-type: none"> <li>• Personas</li> <li>• Offerings map</li> </ul>  |
| 3. Develop           | <ul style="list-style-type: none"> <li>• Customer journey map</li> <li>• Service blueprint</li> <li>• Stakeholder map</li> </ul> |
| 4. Deliver           | <ul style="list-style-type: none"> <li>• Scenarios (service storyboards and customer journey maps)</li> </ul>                    |

Overall, service design tools appear strategic and procedural; they require consciously considering a situation or system to visualise and/or note issues within it or future implications. Consequently, they do not seem to support deep explorations of subjectivity, such as less overt positive or negative affects influencing experiences under study. Admittedly, this is not problematic in certain scenarios where efficiency and productivity are the primary concept goals, a fast food service for example. However, in most social contexts, especially home, happy experiences are desirable and require comprehensive examinations of emotional attributes to understand and facilitate these. To that end, other non-exclusive creative methods used within Service Design are explored in detail in Section 2.4.3—such as their ability to investigate and conceptualise subjective experiences to complement service design tools in a ‘designing for home happiness’ process.

#### **2.4.2.2 Relational Aspects of Service Design**

Cipolla and Manzini (2009) suggest an interpretive framework for interactions in Service Design called ‘relational services’ in which the design of a service and/or product of that service have psychological impacts on users upon contact, determining its future success (p. 46). Designed objects and surroundings of a service—referred to as the *service evidence* and the *servicescape*—comprise visual indicators of the service and act as an interface between users and providers (Lo, 2011b, p. 5). Individuals can interpret both intended and unintended *relational messages* of the service providers’ perceptions about them through their interaction with these (ibid).

Appraisal theory accounts for these *relational messages* by suggesting that when we have positive engagements—those judged as pleasant and/or a means to one’s goals—we experience pleasant feelings and respond positively (Roseman and Smith, 2001; Smith and Kirby, 2009). The reverse is true when we appraise a situation negatively (see Figure 2.10). These relational messages are therefore significant in creating positive experiences from interactions with design products, services and systems.



Figure 2.10 – A Model of Arnold's Theory of Appraisal Theory, adapted from Reeve (2009, p. 345) (Josephineanne, 2014) [CC BY-SA 4.0](#)

Similar exchanges appear to occur in the home. For instance, leaving dinner out for someone could be interpreted as a positive relational message by the viewer—this person cares about me. However, if a household member had left visual evidence that s/he had eaten the other's food, this creates a negative relational message—this person does not care about me. As these messages accumulate over time, they could influence future positive or negative interactions between occupants, creating happy and sustainable homes or the reverse. Examination of positive and negative relational home messages hence offers another viable angle for exploring 'designing for home happiness'. With this consideration, design interventions could be used to harmonise areas of conflict and extend pleasant experiences by encouraging behaviour that evokes positive relational messages.

### 2.4.3 Overview of Creative Methods used within Service Design

Creative methods are employed to encourage ideation and divergent thinking in design research and practice. They include other methods that might be incorporated in a service design process that are not unique to Service Design. Many are referred to as *codesign methods*, used within Participatory Design to enable potential users to generate both inspirational and informational content and/or collaborate on design projects (Sanders, Brandt and Binder, 2010; Sanders and Stappers, 2014a). Sanders et al. (2010) present a framework for arranging these by purpose, such as to *probe* individuals for more detailed information on certain concepts, *prime* them for later codesign activities, *understand* their experiences of areas being examined, and *generate* new ideas and designs using specific tools and techniques. See Table 2.3.

Table 2.3 – Summary of Creative Methods and Their Roles in Participatory Design (Sanders, Brandt and Binder, 2010, pp. 2–3)

| TOOLS AND TECHNIQUES  | PROBE | PRIME | UNDERSTAND | GENERATE |
|---|-------|-------|------------|----------|
| <b>MAKING TANGIBLE THINGS</b>   |       |       |            |          |
| <b>2-D collages</b> using visual and verbal triggers on backgrounds with timelines, circles, etc.   | X     | X     | X          | X        |
| <b>2-D mappings</b> using visual and verbal components on patterned backgrounds   |       | X     | X          | X        |
| <b>3-D mock-ups</b> using e.g. foam, clay, Legos or Velcro-modeling   |       |       | X          | X        |
| <b>TALKING, TELLING AND EXPLAINING</b>  |       |       |            |          |
| <b>Diaries</b> and daily logs through writing, drawing, blogs, photos, video, etc.  | X     | X     | X          |          |
| <b>Cards</b> to organize, categorize and prioritize ideas. The cards may contain video snippets, incidents, signs, traces, moments, photos, domains, technologies, templates and <i>what if</i> provocations. |       |       | X          | X        |
| <b>ACTING, ENACTING AND PLAYING</b>   |       |       |            |          |
| <b>Game boards and game pieces and rules</b> for playing  |       | X     | X          | X        |
| <b>Props and black boxes</b>  |       |       | X          | X        |
| <b>Participatory envisioning and enactment</b> by setting users in future situations  |       |       |            | X        |
| <b>Improvisation</b>  |       |       |            | X        |
| <b>Acting out, skits and play acting</b>  |       |       | X          | X        |

For instance, 2-D collages (see top of ‘Tools and Techniques’ column under ‘Making Tangible Things’ heading) are said to be suitable for *probing priming, understanding* and *generating*—as indicated by an ‘X’ in each corresponding column. Notably, creative methods may be executed through ‘design games’, design activities specially formulated using props,



rules and goals to assist cross-disciplinary collaboration and idea generation during participatory design sessions (Brandt and Messeter, 2004; Brandt, 2006). These are more *approaches* to using creative methods rather than creative methods in themselves and are therefore not explored any further.

Sanders and Stappers (2012) also refer to creative methods as *make techniques* as they require people to create things, which can provide access to tacit and latent knowledge—unattainable through the other non-creative methods in isolation, such as observation—doing techniques—or interviews—saying techniques (see Figure 2.11).

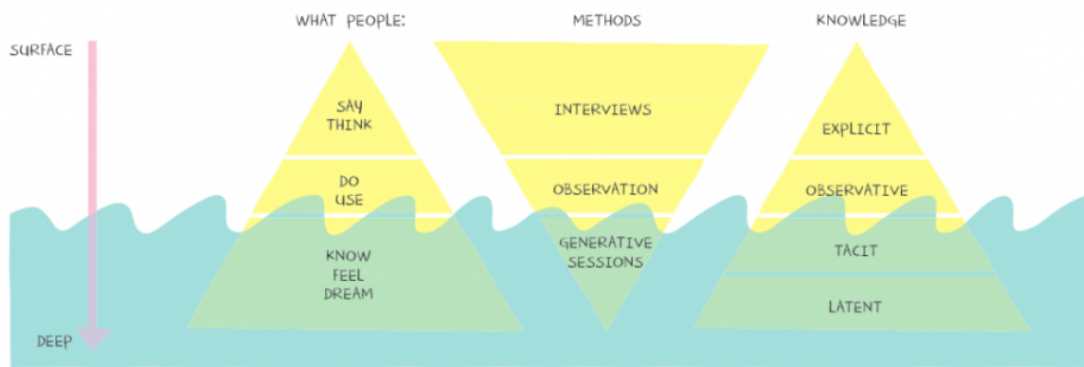


Figure 2.11 – Examples of Methods that Study What People Think, Do and Feel to Access Explicit, Observational and Latent Knowledge (Sanders and Stappers, 2012, p. 67)

Creative methods for codesigning can be condensed further into three groups: probes, toolkits and prototypes (Sanders and Stappers, 2014a) (see Figure 2.12).

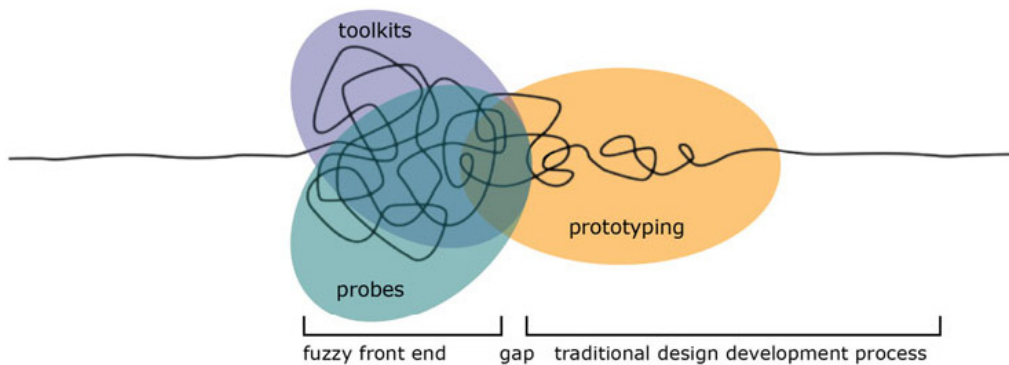


Figure 2.12 –Three Approaches to Making in Codesign along the Design Process Timeline (Sanders and Stappers, 2014a)

Although additional creative methods used within Service Design exist outside of these classifications, each can be related and discussed within these themes. Furthermore, Steen et al. (2011) indicate that creative methods for codesigning are vital for the success of service design projects. Given their importance within Service Design and for added simplicity, the most prominent creative methods are discussed in relation to these three groupings and Sanders et al.'s framework outlined in Table 2.3 in the following sub-sections.

#### **2.4.3.1 Probes**

Probes originated from expert-led User-centred Design. Following a 'user as subject' philosophy; it invites participants to share their feelings and experiences in creative formats, predefined and created by experts (i.e. designers), the results of which can be used selectively (Sanders and Stappers, 2014b). They are reliant on active participation from individuals where tasks orchestrated by the design or research team are self-documented to investigate aspects of everyday lifestyles (Mattelmäki, 2006). Self-documentation is deemed an effective approach in this as it provides a means of collecting data from multiple scenarios—a more reliable way of understanding an individual than investigating a single moment (DeLongis, Hemphill and Lehman, 1992)—and reduces the influence of an observer (Carter and Mankoff, 2005).

Gaver, Dunne and Pacenti pioneered the probe in 1999. First introduced as *cultural probe*, this method takes a designer-artist approach in which an aesthetically well-designed package is given to participants with tasks for gathering inspirational material as opposed to information for design projects (ibid). It usually consists of a diverse range of materials, such as diaries, maps, cameras, and evocative activities, including self-photography—completed by participants in their own time and space (Mattelmäki, 2006) (see Figure 2.13–2.14).



Figure 2.13 – An Example of a Cultural Probe Package (Gaver, Dunne and Pacenti, 1999)



Figure 2.14 – An Example of Probe Materials (Kristav, 2003)

The experience sampling method (ESM) can be employed to collect data using the probe. It uses devices to spontaneously collect visual data (i.e. video footage or imagery) (Intille, Kukla and Ma, 2002) or randomly prompt descriptions of current actions, thoughts or feelings using probe materials (Palen and Salzman, 2002) to explore subjective environmental experiences (Larson and Csikszentmihalyi, 1983). Returned probe data is usually incomplete, uncertain and biased, including but not limited to photographs, collage and diary entries. According to Gaver et al. (2004), probe results are the designers' personal interpretation of the data. By utilising 'diaries and daily logs through... photos, videos etc.', listed on Sanders et al.'s framework (see Table 2.3), the probe method can be used for *probing* individuals for in-depth content on topics understudy, *prime* them for contemplation on these themes in later codesign activities, and *understand* relevant participant perspectives.

Notably, daily logs using video and/or photos are also used outside of the probe method. In this context they are referred to as 'elicitation studies' in which media recorded by participant is used as prompts during follow-up interview discussions (Carter and Mankoff, 2005)—also known as photo elicitation (Harper, 2002) or video elicitation method (Henry and Fetters, 2012), depending on the medium. Furthermore, as participants can quickly

capture imagery or footage, elicitation methods tend to be less onerous than other methods, such as the ESM where individuals might be prompted to answer multiple questions throughout the day (Carter and Mankoff, 2005). Additionally, previous research found that images lead to more certain participant recollections than other media during interviews (ibid). Lastly, elicitation methods do not necessarily include participant generated footage or photography; these can also be issued by the investigator, but for the purposes of this discussion, concerning creative methods, they are used to refer to the former approach.

The probe method since its original introduction now including variations such as domestic probe—elicit and capture influential factors of home life (Hemmings *et al.*, 2002), information probes—gather specific subjective information (Crabtree *et al.*, 2003), technology probes—collect information about technology use, field test new concepts and inspire additional ones (Hutchinson *et al.*, 2003), and empathy probes (Mattelmäki and Battarbee, 2002). Empathy probes retrieve experimental user data, usually followed up with interviews to validate prior interpretations with participants. Limitations of the probe include exploring in-situ subjective experiences; it is hard to encourage participants to complete tasks in action-based scenarios, limiting the content to retrospective reflections which may not be as accurate or honest if recorded during relevant activities (Hulkko *et al.*, 2004). Consequently, elicitation methods employing imagery may be more appropriate in this as these can support precise recollections of events during interview sessions—as previously mentioned. Additionally, the resulting probe data can be difficult to collate and present to collaborators (ibid).

Generally, all probe studies tend to be: design orientated and exploratory, focused on participant subjectivity, self-documented and employed at the fuzzy front end of design (see Figure 2.12) (Mattelmäki, 2005, 2006). They are implemented for four reasons: inspiration, information, participation and dialogue (ibid). Probes for inspiration are designed openly and creatively to later drive design ideation. Information probes are formulated to retrieve descriptive user data about experiences and needs (Crabtree *et al.*, 2003). By requiring active user participation, probes can encourage reflection on previously unconsidered topics while allowing individuals to be directly involved in the design process (Hutchinson *et al.*, 2003). Probes can therefore be utilised in both user-centred and participatory design approaches to gain deeper understandings of users and their experiences.

### 2.4.3.2 Generative Toolkits

Since the 70's the user has begun to transition from passive subject to participant and/or *co-creator* in the design process with the development of Participatory Design—also referred to as Codesign (Sanders and Stappers, 2008). Creative methods are increasingly being employed with end-users during project research and developmental stages. Specifically, generative toolkits provide ‘participatory design language’ that allow users to contribute their ideas to the design process during collaborative activities (Sanders and Stappers, 2014a). While the outputs from cultural probes are used at the designers’ discretion, generative toolkits follow a more deliberate process in their facilitation and analysis (ibid). The main purpose of toolkits is to enable participants to think creatively about their future through Koestler’s (1964) bisociation, a process that brings together seemingly unrelated concepts (Sanders, 2001). This is made possible by the toolkit being conducted in four stages; *immersion* in the experience, *activation* of feelings and memories about the topic, *dreaming* about the time to come, and *expression* of new ideas (bisociation) for the future (ibid). The ‘path of expression’ plays a central role in the success of this process (Sanders and Stappers, 2012). It is based on the concept that past experiences and feelings influence how individuals think and experience things in the present. It is therefore possible to explore memories and present experiences to inspire dreams and future possibilities (see Figure 2.15).

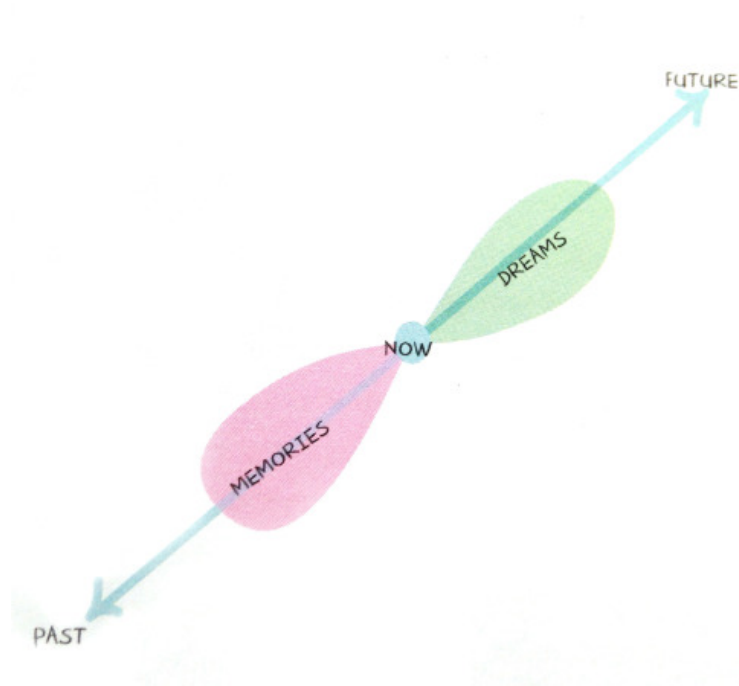


Figure 2.15 – An Image Demonstrating How Memories Link the Past to ‘Now’ and ‘Dreams’ Connect the Future to the Present (Sanders and Stappers, 2012, p. 55)



An immersion period, one to two weeks, is conducted prior to toolkit use in which participants are given activities to self-document—with the aim of awakening relevant memories and personal associations (Sanders and Stappers, 2012)—in the form of a probe (see Sub-section 2.4.3.1), (Mattelmäki, 2006). After a period of sensitisation, the toolkit is used with participants in a codesign session to explore memories and present experiences that they are now more attentive to. Initial exercises might be aimed at activating memories and feelings around the subject while later activities could involve visualising new possibilities. The emerging artefacts then inspire discussion and reflection of underlying needs, values and future aspirations or prompt further research and use of toolkits (Sanders and Stappers, 2012).

Toolkits are created by designers and/or researchers, consisting of different elements tailored to each study’s purpose that can include photographs, words, symbolic shapes, cartoonlike expressions, systematic sets and raw collections of scrap material (Sanders and Stappers, 2014a). They are normally used in the generative phase of the design process (see Figure 2.16), facilitated by designers and/or researchers.

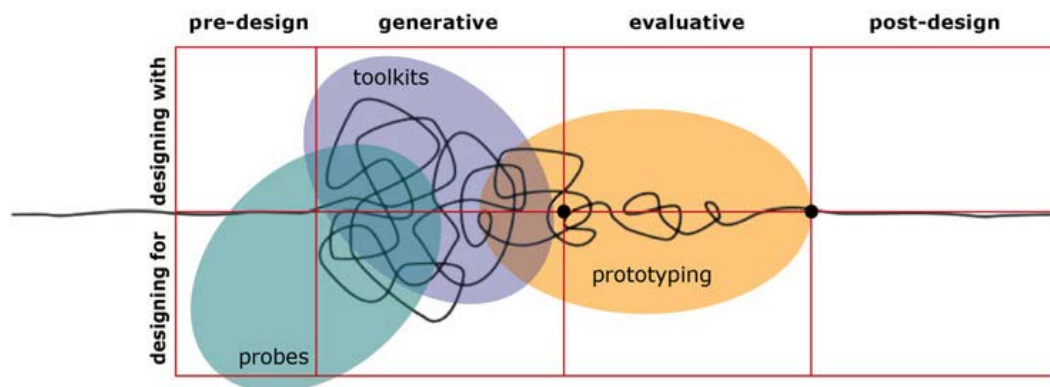


Figure 2.16 – The Three Approaches To ‘Making’ Positioned Under the Different Design Phases and Mind-Sets that Exist Along a Timeline of the Design Process (Sanders and Stappers, 2014a, p. 11)

Toolkits are employed to create an interactive space, supportive of participant creativity, also known as *scaffolding*, and creative activities with different stakeholders (Sanders, 2006). Many activities can be conducted in a codesign session using toolkits. They can be segregated by their use of either *constructive* (Hanington, 2007) and *projective* techniques (Mattelmäki, 2006; Hanington, 2007; Evenson and Dubberly, 2010). Projective techniques are typically ambiguously instructed to allow participants to express emotions that are difficult to verbally articulate (ibid). Furthermore, the created artefact may act as trigger for deeper conversation

around the subject (ibid). Common projective techniques employed include collage making (Butler-Kisber and Poldma, 2010), card sorting with inspiration cards (Naranjo-Bock, 2012) and cognitive mapping (Sanders and William, 2003):

**Collage** comes from the French word *coller* to stick and involves sticking together fragments of found imagery, textures and scrap paper to portray an image, mood or concepts (Butler-Kisber and Poldma, 2010). Listed as ‘2-D Collages’ on Sanders et al.’s framework in Table 2.3, they are suitable for *probing* deeper insights from participants around topics of concern, *priming* individuals for future codesign exercises around these themes, assisting in the *understanding* of related participant moments and *generating* original concepts and designs. Unlike the linearity of written thoughts, collage operates in reverse by first working from the feelings that something evokes to the concepts associated with them. It is therefore a naturally reflective and engaging process that can be useful for eliciting feelings on certain topics (Sanders, 2001). It also requires little artistic knowledge to create an aesthetically pleasing composition, providing an encouraging method to use with less creatively confident individuals (Butler-Kisber and Poldma, 2010). The materials provided should not be too precise and should be ambiguous enough to allow participants to create their own meaning from the work (Sanders and William, 2003) (see Figure 2.17). These should be carefully determined by brainstorming, piloting and refining materials before producing and supplying them to participants (ibid).



Figure 2.17 – An Example of a Collage Set and Participants Engaging in the Process (Sanders and William, 2003, p. 142)



**Inspiration cards** are card-sets made/provided by the design/research team (Naranjo-Bock, 2012)—usually illustrating a range of images, words and/or unfinished sentences—to allow participants to construct stories and visualise future scenarios by arranging them in different sequences (ibid) (see Figure 2.18).



Figure 2.18 – An Example of Inspiration Cards (Naranjo-Bock, 2012)

These are included under ‘cards’ on Sanders et al.’s framework (see Table 2.3), and can be used to *understand* user perspectives, and *generate* unique ideas and designs. This method is particularly accessible to all artistic abilities; participants can easily compose visual narratives without any prior creative knowledge.

**Cognitive mapping** provides ways of illustrating participant understandings of processes, systems or events by arranging and connecting 2D symbolic shapes and words (Sanders and William, 2003), not possible by words alone (Butler-Kisber and Poldma, 2010) (see Figure 2.19).



Figure 2.19 – An Example of a Cognitive Mapping Kit (left-hand side) and a Possible Outcome (right-hand side) (Sanders and William, 2003, p. 144)

Cognitive mapping falls under ‘2-D mappings’ on Sanders et al.’s framework (Table 2.3), and allows for *understanding* participant experiences, and *generating* new ideas and design outcomes. Although like the collage making process, it allows for the conceptualisation of experiences at a more specific level, which requires the material to be more concrete in nature than those selected for collage work (ibid).

Evidently, a range of projective techniques (i.e. collage, cognitive mapping) exist for exploring subjective experiences within toolkits. However, these emphasise facilitating collaboration and *scaffolding* for creative activities with different stakeholders (Sanders, 2006). Consequentially, deep individual emotional exploration is not the priority, and group work and conversation are encouraged to reach collective understandings around relevant issues to create culturally relevant designs. For instance, many projective techniques employed in toolkits, aimed at accessing unconscious feelings, are predefined; collage making usually provides individuals with pre-prepared images and words around specific themes, allowing participants to create compositions quickly together through discussion without need for intense individual reflection or evaluation. Similarly, inspiration cards present premade pictures and words that can be rapidly assembled, promoting discussion and design teamwork, without focusing on the individual. Lastly, cognitive mapping place further restrains personal reflection by being conducted using prepared 2D symbolic shapes that are purposed with visualising systems and processes more generally rather than emotional experiences. This illustrates possibilities for researching and conceptualising an original creative method that prioritises deep sensitisation, comprehension and elaborations of a person’s subjective experiences.

Supplementary techniques used within and outside of toolkits include **constructive techniques**. These usually involve modelling with tangible materials i.e. LEGO (Lego Serious Play, 2002) and Velcro-modelling (Hanington, 2007) and/or enactments with props (van Rijn and Stappers, 2007) to try out new experiences (e.g. Velcro-modelling) and/or explain current ones (e.g. LEGO). Generally, they are used to materialise new design concepts into prototypes—discussed in following Sub-Section 2.4.3.3.

### 2.4.3.3 Prototypes

The codesign process also involves trying out new relationships or roles that accompany emerging designs (Sanders and Stappers, 2012). While artefacts created in the generative stage are used to embody experiences, those made later portray objects and spaces. A design prototype is an object made to investigate a design question and can be evaluated with future users (ibid). It is an early construction of an emerging design idea (Yang and Epstein, 2005), composed to test it with others before being finalised (Kolodner and Wills, 1996; Schrage and Peters, 1999). They therefore provide an excellent method of trialling and refining emerging design ideas with relevant stakeholders.

Prototypes can play the role of *props* and provide *3-D mock-ups* of designs in development, accommodating enactments for imagining future scenarios. By acting as ‘props’ and ‘3-D mock-ups’ of preliminary designs, and supporting ‘acting out’, prototypes can enable better *understandings* of user moments and support *generation* of new design ideas, as indicated by Sanders et al.’s framework (see Table 2.3). They therefore are not just representative of a physical thing but also the learning process that results from its conceptualisation and interaction. Through this, they are used to test whether an idea should be pursued (Sanders and Stappers, 2014b). ‘3-D mock-up’ tools including LEGO (Lego Serious Play, 2002) and Velcro-modelling (Hanington, 2007), and ‘props’ and ‘acting out’ techniques such as enactments with props (Brandt and Grunnet, 2000; van Rijn and Stappers, 2007) are used for prototyping emerging designs and related experiences, converting them into something tangible.

**Velcro-modelling** is usually employed after other projective techniques (discussed previously in Sub-Section 2.4.3.2) have been utilised to instigate immersion and dreaming about relevant topics (Hanington, 2007). It allows participants to explore emerging ideas in

a hands-on manner with 3D models. As a '3-D mock-up' tool, it supports *understandings* of user moments and *generation* of design concepts, according to Sanders et al.'s framework in Table 2.3. The kits usually consist of shapes and buttons, and other objects (see Figure 2.20) that appear ambiguous, maximising their imaginative possibilities with participants (Sanders and William, 2003).



Figure 2.20 – An Example of a Velcro Modelling Kit (left-hand side) and Two Participants Interacting with it (right-hand side) (Sanders and William, 2003, p. 145)

The large grey objects, in the upper right-hand corner, are covered with Velcro adhesive material and the smaller white and coloured components have Velcro on the back, enabling their attachment to the larger shapes (ibid).

LSP involves the use of LEGO pieces that are built and composed by participants in a team to answer a question posed by the facilitator (Frick, Tardini and Cantoni, 2013), and might be employed independently or before or after the use of other methods (see Figure 2.21).



Figure 2.21 – An Example of a Model Being Assembled in a LSP Workshop (left-hand side) and a LSP Pack (right-hand side) (LEGO Serious Play, 2015)

This could be a question about an on-going project, task or strategy where LEGO pieces are used to *build* symbolic answers to this. In this way, LSP can be understood as a ‘3-D mock-up’ technique within Sanders et al.’s framework (see Table 2.3), supportive of design concept *generation*, and *understandings* of participant perspectives within experiences of interest as illustrated by the framework. During the LSP process, participants share with each other the meanings attached to models they create. After this, the facilitator encourages reflection on the resulting artefacts and discussions. By following this sequence, participants begin to understand themselves and their teammates better, and the potential of the group, including strategies that can be employed in real life scenarios (ibid). LSP is built on theories of play, constructivism, hand-mind connection and imagination (Lego Serious Play, 2002). It is a playful method that encourages adult social bonding, emotional expression, cognitive development and friendly competition (Frick, Tardini and Cantoni, 2013). Objects used can take on meaning and emulate abstract concepts, explaining relationships that are otherwise difficult to comprehend (Lego Serious Play, 2002). Being a hands-on activity, and with a large percentage of the brain being given to the control of hands (Penfield and Rasmussen, 1950), LSP allows for thinking through embodied gestures and stimulates imaginative thought processing (Frick, Tardini and Cantoni, 2013).

**Enactments with props** can be used to tell stories about the future, testing their viability in real world contexts (Foverskov and Yndigegn, 2011). By using props during generative sessions participants can act out and take on the role of the expert (van Rijn and Stappers, 2007). This approach can be particularly useful when trying to get shyer members of the group to contribute. Generally, they are employed after participants have been thinking or generating projective material about relevant topics for a few hours. For example, the AsSeenOnTV technique employs enactments with props (van Rijn and Stappers, 2007). It is an ‘acting out’ technique that uses ‘props’ as tools where participants give their opinion in a TV-shape frame set up in front of the rest of the group who form a seated audience (see Figure 2.22).



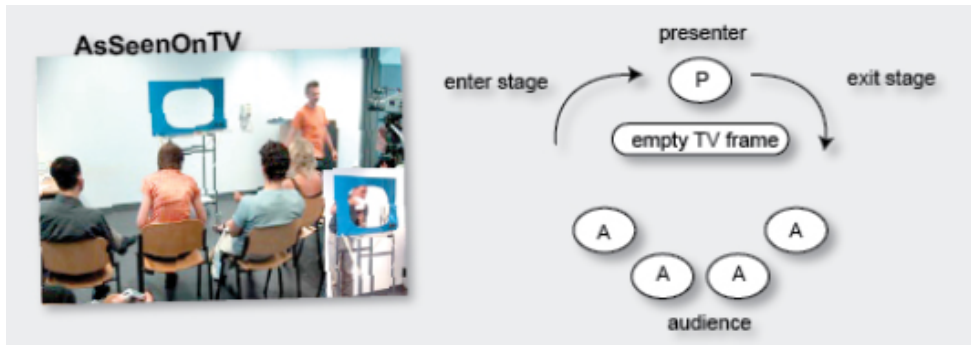


Figure 2.22 – An Example of AsSeenOnTV Method (left-hand side) and the Setup of the Room (right-hand side) (van Rijn and Stappers, 2007, p. 3)

Each person presents his/her story about the artefact they created in previous activities through the TV frame, allowing them to feel in control as they have a clear role in the situation—the expert on TV (ibid). By incorporating ‘acting out’ and ‘props’ techniques and tools listed in Sanders et al.’s framework (see Table 2.3), the AsSeenOnTV technique can be seen to facilitate design concept *generation* and participant experience *understanding*.

Prototypes can play various roles in design research including: stimulating focused conversation on concepts, allowing for hypotheses testing, forcing volunteers to consider other overlapping frames/theories/perspectives, enabling the embodied theory to be criticised, and changing current normalities by envisioning new scenarios (Stappers, 2013). They come in three forms: high-fidelity in appearance and operation, gathering rapid feedback from future users (see Figure 2.23); quick and rough where users may be involved in their creation (see Figure 2.24); paper-based that quickly visualise experiences, supporting direct learning for both designers and participants (Sanders and Stappers, 2012) (see Figure 2.25).



Figure 2.23 – An Example of a High Fidelity Prototype of a Plane, the Douglas SB2D ‘Destroyer’ Being Tested in a Wind Tunnel (NACA, 1942)

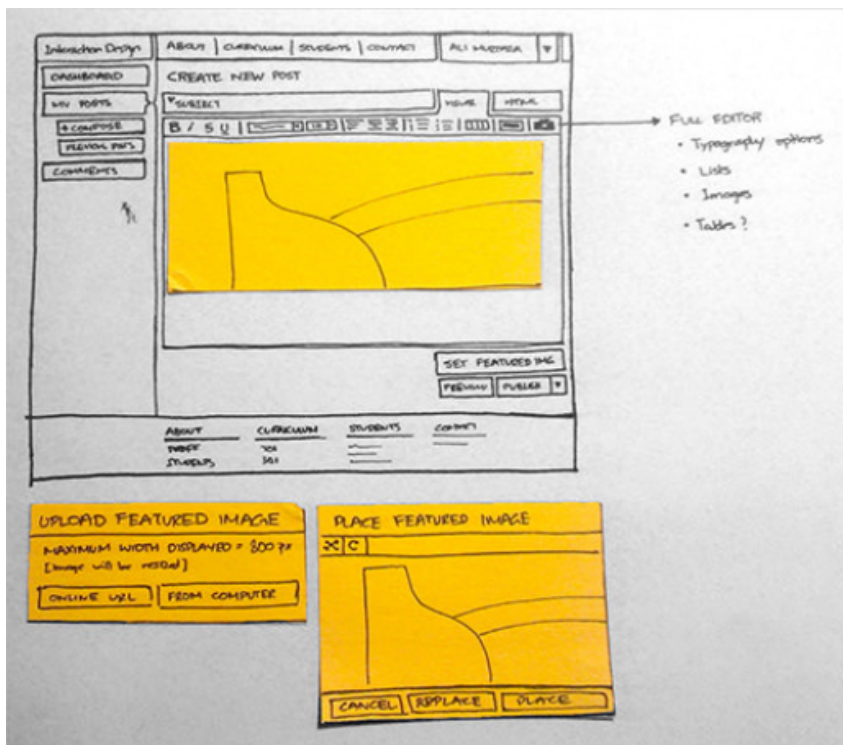


Figure 2.24 – An Example of a Paper Prototype of a New Website Design Created for the University for Creative Careers (SCAD)’s Interaction Design Department (Busche, 2014)



Figure 2.25 – An Example of a Rough Service Prototype (Kerymova, 2015)

#### 2.4.4 Section Conclusions

Designed products and services can influence the type of interactions occurring in social contexts, thus having negative and positive impacts on individual experiences. Consequently, ‘designing for happiness’ presents a way to improve home experiences. Evidently, there are many design strategies emerging that relate to ‘designing for happiness’. However, many of these appear to either focus on creating overall wellbeing or delivering momentary happiness or are nonspecific to the home. Pohlmeier’s (2012) related recommendations are through product-based interactions, which in isolation are more supportive of fleeting happiness as opposed to long-term happiness in a home context. Furthermore, if these suggestions facilitate *accomplishment* ‘for its own sake’, they could lead to extrinsically motivated actions, encouraging apathy if taken to extremes. Moreover, ‘positive design’ strategies (i.e. *design for pleasure*, *design for virtue*, *design for personal significance*) contain the ingredients for long-term home happiness, but only if delivered evenly to multiple individuals simultaneously. This presents challenges in understanding and creating applicable *design for pleasure*, *design for personal significance* and *design for virtue* outcomes for several inhabitants and/or homes concurrently when each will have different preferences, lifestyles, needs, and routines. Moreover, ‘Design for Happiness’ presents generalised characteristics of happy and sustainable societies that could be situated in the home to guide relevant design propositions supportive of happier and more sustainable practices in this area. Given the lack of design



approaches for designing directly for home happiness, there is scope to explore and establish potential frameworks and theories for ‘designing for home happiness’.

Lastly, Hassenzahl et al.’s (2013) description of needs, such as *relatedness*, *popularity*, for supporting ‘practices’ for happy experiences inspires exploration of those for home happiness and how these might be used for ‘designing for home happiness’. In addition, designs for basic needs (i.e. security) could enable disadvantaged homes to focus more on psychological needs (i.e. development of strengths) to increase happiness, as indicated by Maslow’s Hierarchy of Needs. Collectively, this strengthens the notion that home happiness designs should facilitate *happiness as pleasure* (through basic need satisfaction), *engagement* and *meaning* concurrently to encourage home happiness for numerous households and occupants.

Service Design also appears to offer a viable systemic approach that complements the home as a complex system to develop applicable design strategies. Correspondingly, design has moved from being product centric to facilitating holistic user experiences. Service Design, by encouraging user participation and creativity to create its value and meaning, can be used to develop new socio-economic value in society (i.e. happy and sustainable home experiences). Through its collective consideration of the user journey and related systems, it can be employed to conceptualise design interventions for future happy home experiences. Furthermore, there are relational aspects of Service Design that are also apparent in the home and could be further harmonised through home happiness design. Moreover, service design approaches have yet to be used to tackle home happiness directly through a ‘Design for Happiness’ angle by creating services or PSSs for long-term happiness and sustainability. This indicates an opportunity to expand service design knowledge within this area.

To conceive applicable design solutions, home subjectivity must be explored in-depth. Current methods employed in Service Design appear to be effective in refining and finalising interactions for desired experiences. Service design methods, such as customer journey maps, enable a means of prototyping overall service and PSS moments—for example, how a new design is incorporated into the fabric of home life. Service design methods, such as service safari, also offer potential approaches to sensitise service designers to complexities of home experiences for ‘designing for home happiness’.

Although, the raw material that informs service design methods in the predesign (i.e. discovery) and generative stages (i.e. develop), such as probes and toolkit results, appear to have some limitations in capturing felt moments. Probes have difficulty in recording honest reflections of contextual subjective experiences; it is hard to encourage participants to carry out tasks in action-based situations unsupervised or in a manner that is deeply reflective, limiting the data to retrospective descriptions. Furthermore, as codesign sessions emphasise supporting collaboration and *scaffolding* for creative activities with various individuals, related projective techniques tend to use planned materials and exercises that allow participants to easily engage and complete tasks—reducing the need for in-depth individual reflection and emotional investigation.

Finally, constructive techniques are useful when initial design concepts have emerged from previous generative stages and are ready to be prototyped; prototypes seem invaluable in enabling exploration and testing of future scenarios and designs with future users and stakeholders, strengthening the viability of final concepts. Nonetheless, the emotional depth of rough concepts may be diluted if the most suitable methods for investigating relevant subjective experiences are not employed during exploratory and developmental stages. Consequently, probes and toolkits do not appear suitable for intensely exploring home happiness. Although, elicitation methods show promise in its initial examination by using participant generated imagery or footage to support deep elaborations of home happiness aspects in follow-up interviews, as previous research suggests—indicating what home scenarios are worth exploring with art therapy techniques for example. Nevertheless, this indicates the need for investigating and developing an additional creative method that encourages deep individual emotional exploration—such as to prioritise the examination and conceptualisation of home happiness—informing later design phases using prototyping and service design approaches.

## **2.5 Art therapy techniques – An Alternative Approach to Exploring Subjective Experiences**

Art making that is focused on positive themes can encourage pleasant feelings (Wilkinson and Chilton, 2013) and is used in Art Therapy for deep emotional exploration (Malchiodi, 2007). The following sub-sections consider different techniques used within this field,

drawing comparisons and commonalities between previously discussed creative methods used in Service Design, including what these insights mean for home happiness.

### **2.5.1 Art Therapy**

Art provides an alternative way of clarifying inner feelings without words, and can be used for healing, self-exploration and reflection (Malchiodi, 2003, 2007; BAAT (British Association of Art Therapists), 2015). Art Therapy is a type of psychotherapy that uses the therapeutic benefits of art creation to treat physiological and mental disorders or to aid in self-development, combining art with psychology (ibid). While traditional art classes create art from one's imagination or objects on display, it's one's pre-existing feelings and thoughts that inspire and motivate resulting compositions during art therapy sessions (ibid). Art therapy techniques hence involve connecting, visualising and engaging with internal images through artistic self-expression and reflection (Malchiodi, 2007; Rubin, 2011).

Art therapy practice has been heavily influenced by Freudian psychoanalytic and Jungian analytical theory. Freud (1923/1961) stated that our unique imagery brings us closer to our unconscious motives as they predate our capacity for verbal expression, offering insights if visualised. Jung (1964) also recognised the importance of representing a mood or a problem as an image in order to experience and understand the emotions behind it. Art Therapy can, however, only be defined as such when in the presence of an art therapist as they facilitate the creative process that allows participants to reach treatment or personal goals (Frank, 2015). Nevertheless, it has been suggested that techniques from Art Therapy can be borrowed and used in a research context (Gauntlett and Holzwarth, 2006; Awan, 2007) to, for example, investigate 'a way of knowing in practice' (Hogan and Pink, 2012) or capture the multidimensional aspects of social systems such as a families (Deacon, 2006).

### **2.5.2 Art therapy techniques vs. Creative Methods Employed in Service Design**

Art Therapy is based on two primary premises; art making is naturally therapeutic and a means of symbolic communication (Liebmann, 2004; Silverstone, 2009). Art therapy techniques are employed to allow individuals to express emotions and thoughts that are difficult to verbalise (Malchiodi, 2007), consequently bearing the closest resemblance to previously discussed projective techniques employed in toolkits (i.e. cognitive mapping). However, clear differences exist, and comparisons can be made to other creative methods.

Please see Table 2.4 for a general overview of art therapy techniques and other creative methods within Service Design when considered collectively.

Table 2.4 – A Cross Comparison of Art Therapy Techniques with Creative Methods

|                                  | Art Therapy Techniques  | Toolkits (Projective Techniques, Constructive Techniques)   | Probes (Cultural, Information, Empathy)   | Prototypes  |
|----------------------------------|---|---|---|---|
| <b>Aim</b>                       | Sense-making of pre-existing emotional knowledge ( Liebmann, 1986; Malchiodi, 2007; Silverstone, 2009)  | Building new knowledge for the conceptualisation of culturally relevant design solutions (Sanders and Stappers, 2012)   | To gain inspiration, information or understanding from the study group (Mattelmäki, 2005)   | To test and explore new ideas (Sanders and Stappers, 2012)  |
| <b>Participant Preparation</b>   | Sometimes involves the exploration of personally significant imagery and previous experiences of art with the participants prior to the session (Malchiodi, 2007)   | Involves a period of sensitisation where thoughts and feelings around the subject of interest are explored using creative exercises (Sanders and Stappers, 2012)  | Can be used as a means of preparation for later tasks employing toolkits or prototypes by sensitising participants to relevant topics (Visser <i>et al.</i> , 2005) | Projective techniques (i.e. collage, concept mapping) may be used with participants prior to using prototypes to sensitise them to design possibilities (Sanders and Stappers, 2012)  |
| <b>Interpretation of Results</b> | Mostly conducted by the participants for personal growth and understanding (Malchiodi, 2007)  | Completed by the participants and designers to reach a collective understanding on the issues of concern (Sanders and Stappers, 2012; Akama and Prendiville, 2013)  | Undertaken by the designers but participants may be interviewed to clarify the meanings of certain findings (Mattelmäki, 2005)                                      | Conducted by designers and participants (Sanders and Stappers, 2012)  |
| <b>Creative Freedom</b>          | Use of material or chosen depictions are completely free or semi-guided i.e. a large array of 'simple and unstructured' materials are provided (Rubin, 2011) for use and/or spontaneous art making exercises (Rubin, 2001) may be employed where the participant draws whatever comes to mind | Tasks tends to be predefined with some freedom of how and what materials are used i.e. materials available could be a picture and word set on a specific topic with additional materials such as colouring pencils to extend meanings (Visser <i>et al.</i> , 2005) | Tasks and materials used tend to be predefined (Mattelmäki, 2005)   | Tasks tend to be predefined but use and selection of materials can be varied depending on the context (i.e. rough prototyping may use several materials but high fidelity prototyping may require these to be specified) (Sanders and Stappers, 2012) |
| <b>Talking During Tasks</b>      | Often actively discouraged (Silverstone, 2009)  | No limitations placed on this   | No limitations placed on this   | No limitations placed on this   |
| <b>Talking After Tasks</b>       | Participants are actively encouraged to make open reflections about their artwork, individually in a group context (Malchiodi, 2007)  | Participants may be asked have a group discussion about results of the task (Visser <i>et al.</i> , 2005)   | Participants may be interviewed with specific questions about the results of the task (i.e. empathy and information probes) (Mattelmäki, 2005)                      | Participants may be interviewed about their experiences creating and/or using the prototype. (Sanders and Stappers, 2012).  |
| <b>Building Empathy</b>          | Active and empathetic listening is used to build empathy between the participant and the therapist, particularly in Person-centred Art Therapy (Silverstone, 1997; Malchiodi, 2003, 2007)   | Designers can adopt an attentive 'listening' approach when participants discuss the results from using toolkits (Yuan and Dong, 2014)   | Participants will be interviewed by designers to verify interpretations of probes, empathy probes in particular (Mattelmäki, 2005)                                  | Participants will often be interviewed about their experiences using prototypes (Sanders and Stappers, 2012)  |
| <b>Use of Enactments</b>         | Enactments may be employed when using Gestalt techniques (i.e. a participant may be asked to personify their artwork) (Malchiodi, 2007; Malchiodi, 2003)  | Enactments may sometimes be used as constructive techniques such as props or Velcro modelling (Sanders and Stappers, 2012)  | Not applicable. The method is completed by participants in their own time and space (Gaver, Dunne and Pacenti, 1999)  | Enactments with prototypes can be used to determine the plausibility or success of design concepts in real world contexts (Sanders and Stappers, 2012, 2014)  |

Notably, there are many approaches and different theoretical frameworks utilised in Art Therapy and most art therapists operate eclectically (Malchiodi, 2003). The more prominent of these and how they differ to creative methods is discussed in the following sub-sections. Additionally, as probes and prototypes overlap with toolkits, such as probes are used as

sensitisation kits (see Section 2.4.3.2) and prototypes can be created using constructive techniques during generative sessions, all creative methods shall be consolidated under the toolkit column for comparison purposes.

#### **2.5.2.1 Commonalities**

The main commonalities between art therapy techniques and creative methods include their capacity to build empathy, and their employment of enactments (see those highlighted in white in Table 2.5).

Table 2.5 – Commonalities (see white sections) and Differences (see orange sections) of Art Therapy Techniques with Creative Methods

|                                  | Art Therapy Techniques  | Toolkits (Projective Techniques, Constructive Techniques)   |
|----------------------------------|---|---|
| <b>Aim</b>                       | Sense-making of pre-existing emotional knowledge (Liebmann, 1986; Malchiodi, 2007; Silverstone, 2009)   | Building new knowledge for the conceptualisation of culturally relevant design solutions (Sanders and Stappers, 2012)   |
| <b>Participant Preparation</b>   | Sometimes involves the exploration of personally significant imagery and previous experiences of art with the participants prior to the session (Malchiodi, 2007)   | Involves a period of sensitisation where thoughts and feelings around the subject of interest are explored using creative exercises (Sanders and Stappers, 2012)  |
| <b>Interpretation of Results</b> | Mostly conducted by the participants for personal growth and understanding (Malchiodi, 2007)  | Completed by the participants and designers to reach a collective understanding on the issues of concern (Sanders and Stappers, 2012; Akama and Prendiville, 2013)  |
| <b>Creative Freedom</b>          | Use of material or chosen depictions are completely free or semi-guided i.e. a large array of 'simple and unstructured' materials are provided (Rubin, 2011) for use and/or spontaneous art making exercises (Rubin, 2001) may be employed where the participant draws whatever comes to mind | Tasks tends to be predefined with some freedom of how and what materials are used i.e. materials available could be a picture and word set on a specific topic with additional materials such as colouring pencils to extend meanings (Visser <i>et al.</i> , 2005) |
| <b>Talking During Tasks</b>      | Often actively discouraged (Silverstone, 2009)  | No limitations placed on this   |
| <b>Talking After Tasks</b>       | Participants are actively encouraged to make open reflections about their artwork, individually in a group context (Malchiodi, 2007)  | Participants may be asked to have a group discussion about results of the task (Visser <i>et al.</i> , 2005)  |
| <b>Building Empathy</b>          | Active and empathetic listening is used to build empathy between the participant and the therapist, particularly in Person-Centred Art Therapy (Silverstone, 1997; Malchiodi, 2003, 2007)   | Designers can adopt an attentive 'listening' approach when participants discuss the results from using toolkits (Yuan and Dong, 2014)   |
| <b>Use of Enactments</b>         | Enactments may be employed when using Gestalt techniques (i.e. a participant may be asked to personify their artwork) (Malchiodi, 2003, 2007)   | Enactments may sometimes be used as constructive techniques such as props or Velcro modelling (Sanders and Stappers, 2012)  |

In Art Therapy, active and empathic listening is a technique used to build empathy and understanding between the participant and therapist (Silverstone, 1997; Malchiodi, 2003, 2007), particularly associated with Person-Centred Art Therapy (Silverstone, 1997). Person-centred Art Therapy is a humanistic approach that stresses self-awareness and autonomy

through deep contemplation of one's internal imagery in the presence of someone (i.e. therapist) who actively enhances the person's feeling of being heard and understood (ibid). This involves the therapist or facilitator carefully listening to the participant's rendition of how they created their artwork and about it was/is significant, asking questions to either assert or increase understanding of what individual is saying (Malchiodi, 2003). Similarly, designers can adopt an attentive 'listening' approach with participants while they discuss results from empathy probes or codesign sessions using toolkits to gain a greater understanding of their experiences (Yuan and Dong, 2014).

In relation to enactments, Art Therapy can incorporate gestalt techniques, based on Gestalt Therapy, common in humanistic approaches to Art Therapy—others include Person-centred and Transpersonal (Malchiodi, 2003). Gestalt approaches view an artwork as the 'gestalt' or spirit of the person in that moment, using various methods to explore the art-making process to allow the individual to derived meaning from these; art products can be used as a catalyst for discussion where dramatic enactments, movement or sound is used to support the person's understanding of its meaning (Malchiodi, 2003, 2007; Hogan, 2009). For example, the participant might be requested to talk from the image's point of view (i.e. 'I am', 'I feel') (Malchiodi, 2003). As previously discussed (see Section 2.4.3.3), props, prototypes and enactments can also be employed within toolkits to encourage individuals to contribute their views or explore new experiences.

#### **2.5.2.2 Differences**

Although art therapy techniques and toolkit projective techniques appear similar in approach—to illustrate feelings difficult to verbalise—their primary aim is different. Using art creation as a communication tool, art therapy techniques provide extended sensitisation to pre-existing emotional knowledge, which can lead to new self-revelations. In contrast, toolkit projective techniques tend to be used with other creative methods (i.e. prototyping) as part of a codesign process, primarily aimed at building new knowledge and understanding between users and designers to inform new designs (Sanders and Stappers, 2012). In short, art therapy techniques focus on personal development through heightened self-awareness while toolkits act as a vehicle for collectively conceptualising culturally relevant design with multiple stakeholders.



When comparing preparation activities, art therapy exercises can involve participants undergoing sensitisation period before deeper explorative work is conducted. Malchiodi (2007) recommends that individuals reflect on their previous art experiences to highlight any negative instances that may hinder their participation in art therapy sessions. Preparation exercises for toolkits, generally do not involve reflection on previous use of relevant materials. Additionally, Malchiodi (2007) also advises participants to become ‘image aware’ by examining the images they keep around them and/or are drawn to. As Art Therapy emphasises the expression of imagery from the unconscious, influenced by environmental images, this activity is to help participants make sense of artwork they later create (Malchiodi, 2007; Rubin, 2011). In contrast, preparation exercises for toolkits focus on sensitising participants to their thoughts and feelings on specific topics. Consequently, these sensitisation activities can be said to prime participants in what they might already know consciously while art therapy preparation tasks encourage consideration of unconscious factors shaping these views.

Notably, toolkits (i.e. cognitive mapping and drawing) can unlock tacit knowledge and facilitate collective understanding during codesign sessions (Akama and Prendiville, 2013). Additionally, materials resulting from certain creative methods (i.e. probes) can be used selectively by the research and design team as inspiration for design concepts or to inform the next round of data collection (Sanders and Stappers, 2014b). Although some Art Therapy might use *projective drawings techniques*—where participants are instructed to draw simple themes, such as a home and human figure, to form part of a psychological assessment—most limit outsider interpretation of the imagery to encourage the individual to construct their own understandings (Malchiodi, 2007). This is because many acknowledge that individuals project their own meanings—developed from life experiences and cultural backgrounds—onto imagery they see (ibid), creating personal repertoires of significant imagery visualised during art creation (Rubin, 2011; Case and Dalley, 2013). Consequently, the true meaning of artworks or artefacts is only known by its creator (Curtis, 2011; Rubin, 2011). Furthermore, these meanings are not necessarily static and can evolve over time as individuals have time to reflect and have new life experiences (Malchiodi, 2003, 2007).

Furthermore, the art therapy process is focused on creating appropriate contexts for participants to connect with, visualise and make sense of internal imagery to ‘find their

authentic selves' (Rubin, 2011). Tasks that are too circumscribed can interfere with this process. To encourage spontaneous and expressive art making, art therapists tend to prefer materials that are 'simple and unstructured', the selection of which usually depend on participants' needs and abilities (ibid). However, toolkit projective techniques are comparatively more creatively limited. They tend to involve directed tasks using prescribed materials of prepared imagery and words to create collages or images around a specific topic (Mattelmäki and Battarbee, 2002; Hanington, 2007).

Like creative methods, art therapy techniques can include mediums such as collage (i.e. coloured paper and imagery), pencils, but can also include sculpture, painting, and mixed media work with solid materials. In a group context and depending on the art therapy session's goals, these activities might also be conducted in complete silence to aid participant concentration and authentic visualisation of internal imagery (Rubin, 2009; Regev, Chasday and Snir, 2016). According to Silverstone (2009), 'talking can shatter the image'. However, most art therapists agree that talking about the artwork is essential for participants to understand their significance (Malchiodi, 2007). Depending on the exercise and approach (Rubin, 2009), discussions may occur after the imagery is complete and at specified times (Silverstone, 2009). During this, participants are encouraged to explain the process they went through and feelings that occurred individually to the group, while others listen (Chilton and Wilkinson, 2009). This process encourages collective learning where other participants may learn something about themselves by listening to other's experiences and artwork interpretations (Liebmann, 2004). These follow-on conversations therefore offer an additional space for personal insights to emerge. In contrast, group discussions may be actively encouraged when using toolkits throughout the session (Visser *et al.*, 2005).

Differences in disciplinary aims, such as emotional development as oppose to stakeholder collaboration, also result in additional concepts and activities being utilised to encourage participant reflection in Art Therapy when compared with creative methods (i.e. toolkits, probes). Notably, Art Therapy, when taking a Freudian psychoanalytical approach, involves the concept of transference in which a person's unconscious feelings, perceptions and ideas are projected onto the therapist or artefact resulting in negative or positive responses in related interactions (Malchiodi, 2003, 2007; Hogan, 2009). Individuals can be encouraged to free associate these feelings through spontaneous art expression to help them become aware

of unconscious projections (Malchiodi, 2003, 2007). Based on verbal free association, this is used to help participants express their thoughts and emotions as freely as possible (Rubin, 2001, 2011). Other relevant art therapy concepts include amplification and active imagination. Amplification is a Jungian analytic approach that involves closely analysing an artwork to consider all its possible meanings while keeping observations as close as possible to the original image to better understand its significance (Malchiodi, 2003). Generally, there are two different approaches to amplification: objective and subjective (ibid). Objective amplification involves an analyst gathering relevant themes from mythology and other sources to help an individual find meaning from symbols found in their imagery (ibid). Subjective amplification includes using the active imagination technique where one sits in a meditative state (i.e. empty one's mind), after creating an artwork to allow images to freely enter consciousness (Malchiodi, 2007). These are recorded through writing or image making to amplify artwork meanings (ibid). However, art creation is also considered by many art therapists to be a form of active imagination (Malchiodi, 2003). Consequently, while *transference*, *amplification* and *active imagination*—understood as part of art creation—may unknowingly occur in the analysis and creation of artefacts resulting from creative design methods, these concepts are actively employed in Art Therapy, through spontaneous art making for example, to illuminate individuals' emotions.

### **2.5.3 Section Conclusions**

Although creative methods, such as toolkits, can access emotional knowledge, clear differences exist when compared to art therapy techniques. Originally used in a therapeutic context, art therapy techniques consequentially give greater attention to expressions and reflections of feelings. This is done in several ways. Preparatory exercises focus on how participants construct their perceptions (i.e. significant imagery and/or experiences) to later aid personal insights during art activities and dissipate negative connotations of art or the session's expectations. Silence may be used in art therapy sessions for greater concentration, and spontaneous art making can be employed to visualise unconscious thoughts. Furthermore, individual open reflection of the meaning of one's artwork, with outsider interpretation removed, is employed to motivate free self-expression and contemplation. Lastly, materials provided can be varied and 'unstructured' to encourage creative freedom. This indicates that these techniques can be used to gather more emotionally in-depth and,

possibly, authentic knowledge from participants in exploratory and developmental stages of design research, informing later service design approaches. They hence show potential in providing an original creative method to explore subjective experiences in a design research context.

## **2.6 Conclusions of the Literature Review**

The current economic system is heavily reliant on mass production and consumption of artefacts, in effect, encouraging materialistic attitudes and lower levels of pro-social behaviour. This among others appears to constrain creativity and reduce happiness while contributing to environmental issues. Spontaneous inclinations to create are dissuaded through the promotion of passive consumption by modern designs that tend to only satisfy the 'doing' level of imagination (Sanders and Stappers, 2012), and this is reflected in many current homes. Rational and logical mind-sets, that naturally reduce social awareness, tend to be encouraged in these scenarios. Furthermore, happiness is sought through product accumulation, which maintains a dominant focus on extrinsic values, attributed to higher levels of reported stress, anxiety and depression. Homes, reflecting and strengthening current lifestyles, in response, have become spaces of production as opposed to facilitators of fulfilling experiences. However, with the constant fluctuations in cultural motifs, varying practices and interactions between people and objects, the home is naturally dynamic and systemically complex. It is a receptive area for influencing gradual change in individual and group societal behaviours, disrupting this current paradigm. Identified gaps in related knowledge are summarised below:

### ***Examining Home from a Long-term Happiness Perspective***

The characteristics of sustainable societies appear to closely align with those that are happy. Accordingly, happy homes could contribute to more sustainable social contexts. Previous investigations into the home have mostly come from built environment and technological perspectives where home happiness triggers are not examined extensively. Exploring home through a happiness lens for the first time allows this system to be investigated holistically to identify how happy experiences are created and can be facilitated in this context.

### *Designing for Home Happiness Using Service Design Approaches*

Designed objects, services and/or systems can be used to influence the type of interactions (i.e. happy or unhappy) that take place in social environments, such as homes. This design exercise is particular to Service Design where, using tangible and intangible elements, it focuses on the holistic user journey for its value and success. It is naturally systemic, showing potential for supporting ‘designing for home happiness’, but it is yet to be used for this purpose. Exploring how service design tools could be used in this manner therefore presents opportunities for novel contributions to knowledge in this field.

### *Frameworks and Theories Specifically for Supporting Designing for Home Happiness*

Although design approaches exist for ‘designing for happiness’, these tend to focus on either enhancing overall wellbeing or individual happiness and are not specified for application in the home—which requires systemically supporting activities for pleasure, engagement and meaning for multiple inhabitants collectively. Notably, ‘Design for Happiness’ does take a systemic approach through the DfH and employs generalised characteristics for happy and sustainable societies to inform corresponding design solutions but is not formulated for especially ‘designing for home happiness’. This illustrates opportunities to establish characteristics for happy and sustainable homes to inform novel frameworks and theories for directly ‘designing for home happiness’.

### *Creative Methods for Deeply Exploring Individual Subjective Experiences within Service Design*

As service design methods, such as customer journey maps and service blueprints, tend to be methodical in approach, additional creative methods to intensely explore emotional dimensions of home are necessary. There is a vast range of creative methods employed in Service Design and design research more generally. Those commonly used to explore feelings, namely toolkits, employ projective techniques such as collage making, cognitive mapping and card sorting with inspiration cards. Notably, these techniques are commonly used alongside constructive techniques, Lego and Velcro modelling for example, to begin prototyping culturally relevant design solutions with end-users. Generally, greater attention is given to group facilitation, collaboration and participation as opposed to deep individual emotional reflection when utilising these methods in codesign sessions. There is therefore scope to develop a new creative method that facilitates prolonged sensitisation to one’s

internal subjectivity, allowing greater elaborations of specific experiences to inform service design research—services and PSSs for home happiness for example.

### *Using Art Therapy Techniques in a Service Design Context*

Art therapy techniques are primarily concerned with generating self-awareness, healing and discovery through artistic practice. They provide an extended period of investigation into one's pre-existing feelings using techniques such as silent and spontaneous art making, and open reflection. Consequently, they possibly supply a new way of deeply exploring home happiness within Service Design to conceptualise relevant design interventions. Applying art therapy techniques with service design approaches for the first time therefore presents opportunities to expand service design knowledge and design research more generally around methods and processes for designing for happier homes. Through this, current productive home contexts could be transformed into happy and fulfilling homes of the future. Subsequent chapters further develop the aim and objectives for this research with these considerations while outlining and constructing procedures for its completion.

### 3 Methodology

The following chapter discusses the research strategy of this enquiry to address the objectives previously outlined in Section 1.5. This includes its overarching theoretical framework, data collection and analysis techniques, breakdown and design of research stages, processes and rationale for this approach.

#### 3.1 Research purpose

Research is undertaken to *explore, describe* and/or *explain* (Robson, 2011). Its purpose dictates the research design, type and methods chosen to complete the enquiry. See Table 3.1 for detailed explanation.

Table 3.1 – Purposes of Research and Their Resulting Design and Type (Dodd and Epstein, 2012)

| Purpose  | Design            | Type   |
|--|-------------------|--|
| <p><b>Exploratory</b><br/>To explore and discover new insights into relatively new concepts and phenomena about which there is little known</p>                          | Flexible          | Qualitative - flexible<br>non-invasive methods |
| <p><b>Descriptive</b><br/>To fully describe an event or occurrence that is easily identifiable in order to improve the existing one (i.e. practice, program, policy)</p> | Flexible or fixed | Qualitative, quantitative or both              |
| <p><b>Explanatory</b><br/>To fully explain or predict phenomena while demanding extensive prior knowledge of the area under study</p>                                    | Fixed             | Qualitative or quantitative                    |

The research employs a new approach in examining concepts of which there is minimal prior knowledge, namely it investigates how Art Therapy and Service Design can contribute to happier homes and more sustainable lifestyles—areas not previously combined or examined in this way. Its primary purpose is to *explore* new ways of facilitating happy and more

sustainable homes. This research is hence *exploratory* as it is seeking new insights into this area.

### 3.2 Theoretical Framework

As this examination involves both the interpretation and critique of social home practices to change them, this research interprets these findings using theoretical frameworks from Critical Theory, Complexity Theory and Self-determination Theory. Critical Theory advocates for the critical analysis of social cues and meanings exhibited in the home while Complexity Theory positions it as a dynamic self-organising system demanding a holistic research approach (i.e. using multi-methods, multi-perspectival, participatory) (Cohen, Manion and Morrison, 2011). In keeping with Self-determination Theory, for this research individuals are assumed to be naturally proactive in seeking stimuli for personality development and behavioural self-regulation but may be hindered by environmental factors (Ryan and Deci, 2000a), in this case, the current experiences offered by existing home interactions. For example, causes of home unhappiness and unsustainability could be attributed to a lack of opportunities for creativity in the space. Additionally, the overlapping phenomena of happiness and sustainable lifestyles (outlined in Figure 3.1) provides another overarching frame to the research, to hone in on how happiness triggers and sustainable practices may converge in the home.

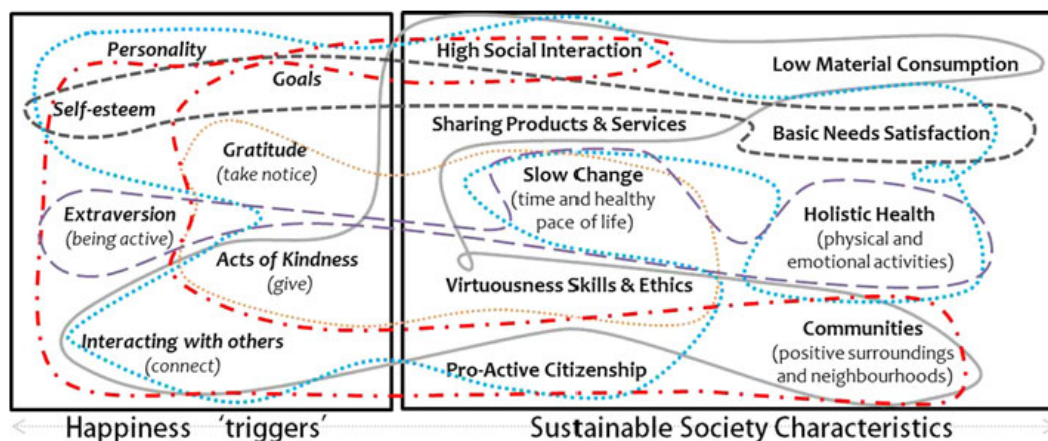


Figure 3.1 – Examples of the Overlapping Characteristics of Happy and Sustainable Lifestyles (Escobar-Tello and Bhamra, 2013)



Admittedly, there are unsustainable home activities that contribute to home happiness on some level. This research is, however, concerned with locating and finding ways of encouraging home happiness behaviours that overlap with those of sustainable societies to support positive affect on both a societal and individual level. Accordingly, comparisons are made between happy and sustainable society phenomena, and current home actions to locate the most promising and sustainably compatible home happiness triggers to explore and support in subsequent studies.

### **3.3 Research Type**

Two presumptions can be made to frame this social enquiry that allow identification of the appropriate research type. Firstly, that home felt experiences are quantifiable and can be measured and manipulated using quantitative research or, secondly, that they are socially constructed and not readily amenable to quantification. In keeping with this research's exploratory aims and literature covered, the researcher has the primary ontological assumption that places are socially dynamic (Massey, 2005; Ingold, 2011), including home, evolving with the varying realities of its occupants and not readily quantifiable. To begin this enquiry, these must be considered and examined in their natural settings while considering the diverse perceptions and interactions of individuals. These phenomena are understood as not static or yet definable and therefore a set of interpretive methods is best suited for this examination. Qualitative research, focusing on 'lived experience' using multiple interconnected interpretive practices, is therefore deemed the most appropriate for the duration of the research (Denzin and Lincoln, 2008).

However, as the ultimate purpose of the research is to facilitate happier and more sustainable home experiences, it is ideal to establish measures for these areas and record any subsequent changes from resulting design interventions. Quantitative research methods are those that use numbers for testing theories by numerically comparing the relationships between variables (Robson, 2011, pp. 18-19). They present ways of validating design interventions for happiness and sustainability if launched in real-world scenarios. The integration of both qualitative (open-ended) and quantitative (closed-ended) data is most commonly referred to as *mixed methods* research but other descriptors include *multimethod* and *mixed methodology* (Bryan, 2006; Tashakkori and Teddie, 2010 cited in Creswell, 2014, p. 217). By using a mixed methods approach, a stronger understanding of the subject under

study can be achieved by comparing different perspectives from both types of data (Creswell and Plano Clark, 2007). Nonetheless, the time frame of this research project only allows for the use of qualitative methods to explore home happiness and how it can be supported through design. Expectedly, quantitative techniques can be employed in future work to record any home happiness changes/improvements resulting from trials of emerging design interventions. For example, questionnaires can be used to gather large quantities of standardised data in a short space of time while also enabling anonymity and more honest answers (Robson, 2011). Self-completed questionnaires (i.e. completed by participants without interference by the researcher) (Akinici and Saunders, 2015) could hence be used to measure happiness levels (and perhaps the sustainable actions) of households before, during and after home happiness design interventions while also providing privacy around a potentially sensitive issue. The Likert scale, a specially formulated questionnaire that measures psychological constructs (i.e. happiness) using several themes (i.e. strongly agree, disagree) from which participant choose to indicate their feelings and/or thoughts (Nemoto and Beglar, 2014), could be employed for this purpose. Furthermore, Likert scales have been used to measure happiness at numerous times in previous research with shown reliability (Diener and Su, cited in Kesebir and Diener, 2008) and many examples, providing inspiration for appropriate scales for later work, can be found at 'The World Database of Happiness' item bank (Veenhoven, 2001). Furthermore, Wilson (2005) offers guidance on how to devise such measurement tools such as (1) comprehending the construct (i.e. long-term happiness), (2) devising items that will measure certain aspects of the construct (i.e. achieving flow—happiness as engagement), (3) deciding how items are grouped and scored (i.e. happiness as pleasure (1), engagement(2) or meaning(3)), (4) determining measurement guidelines (i.e. Rasch model), and (5) piloting and obtaining feedback.

### **3.4 Research Strategy**

Among the strategies commonly employed for research are fixed—quantitative strategy with most elements pre-specified before any data collection has commenced—and flexible designs—qualitative strategy with most of its qualities evolving during the data collection (Robson, 2011, pp. 74–75). This research focuses on real-world situations of people and their home dynamics. It needs to adjust to the requirements and responses of participants as they unfold. It can therefore not be predetermined and is, necessarily, a flexible research

design. Commonly used flexible strategies include ethnography, case study and grounded theory (Robson, 2011). Ethnography involves studying the culture and social structure of a small group from within (Thomas, 2009; Robson, 2011). Case study requires the deep investigation of a specific case of an individual, group, a setting or organisation etc. (ibid).

#### **3.4.1 Grounded Theory**

Grounded theory is a flexible research strategy used to generate an explanation of circumstances or occurrences for which there is previously little or no information available (Robson, 2011). This research explores how Art Therapy and Service Design can contribute to home happiness. These areas are yet to be linked and examined in this way. They are not 'case dependent' (i.e. case study) nor are they just a focus of the social and cultural structure of a group of individuals (i.e. ethnography). They need to be examined from a social interaction perspective (Aldiabat and Le Navenec, 2011) to understand the core processes at work, not just the changes within those processes (i.e. culture) (Morse *et al.*, 2009, p. 13 cited in Aldiabat and Le Navenec, 2011) to create a holistic picture of the situation under study. A grounded theory research strategy, which encompasses these qualities, is therefore the most suitable to inductively 'ground' these phenomena into a workable theory that aids in understanding (Heath and Cowley, 2004; Creswell, 2007), such as how creative techniques within Art Therapy and Service Design can facilitate home happiness. Using this approach, the researcher makes many trips to the field, analysing data continuously between visits until the categories (i.e. information depicting events or happenings) created from the data are saturated and no new categories are emerging (Robson, 2011). Each research phase also builds upon the previous findings of the last (Corbin and Strauss, 2008).

#### **3.5 Research Design**

The research design outlines the research plan while acknowledging the setting and aim of the enquiry (Thomas, 2009, p. 70). This research *explores* home contexts to formulate criteria for happy and sustainable homes. It then *explores* how these criteria might be used to 'design for home happiness'. These concepts are not readily quantifiable and, expectedly, emerge and evolve throughout the research process, using a grounded theory research strategy. This research therefore requires an open-ended approach and follows a flexible research design,

allowing each stage of the research to be directed by the findings as they transpire. This is outlined visually in Figure 3.2. and is explained in detail in the following sub-sections.

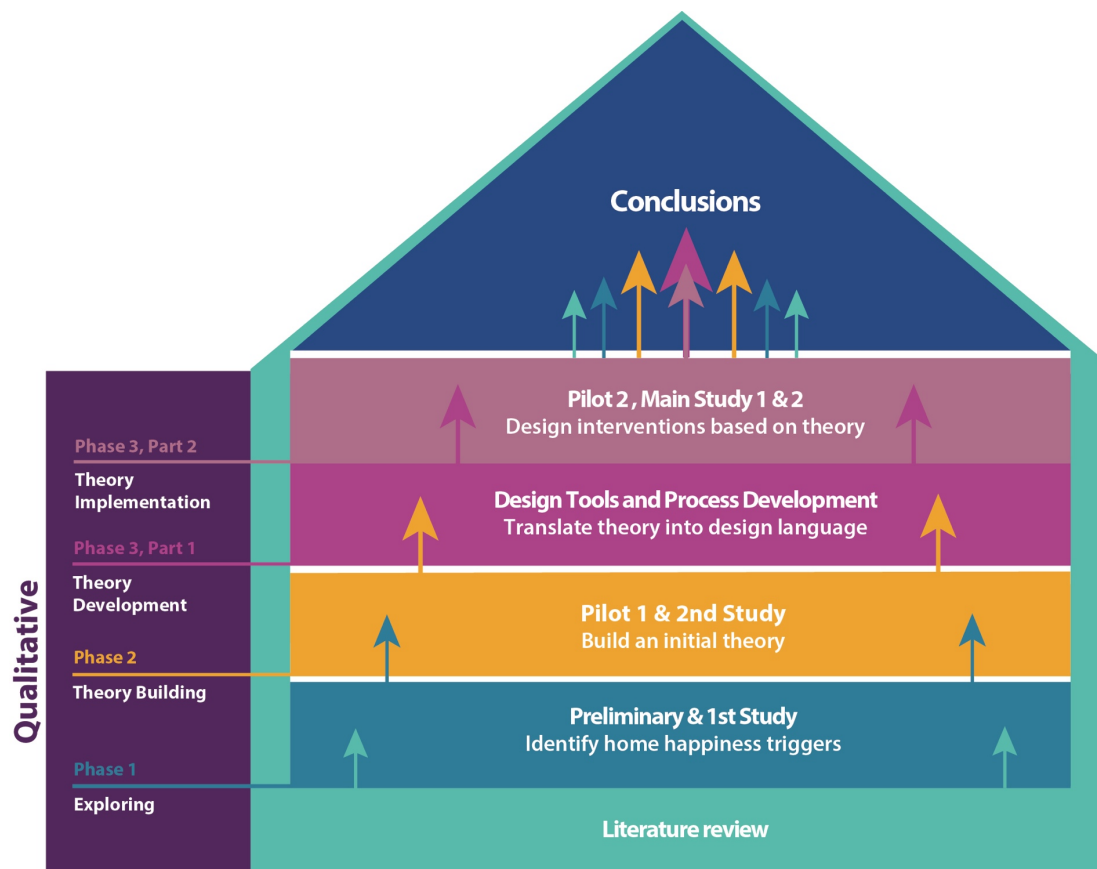


Figure 3.2 – Research Structure

### 3.6 Data Collection and Analysis Techniques

The following sub-sections introduce the phases of the research. This includes the data collection methods, analysis techniques, aims and rationale for each.

#### 3.6.1 Data collection methods

Data collection methods are those used to gather data to answer the research questions posed. Different methods will demonstrate different perspectives when used to answer the same research questions and so it is advisable to use triangulation—more than one method—to allow the results to have a stronger validity (Robson, 2011). There are many methods to choose from (i.e. interviews, surveys, observation) but the selection of these methods should be driven by the types of questions that are trying to be answered (Robson, 2011), the time available, and the research strategy and type to be used (Thomas, 2009).

This research uses a mixture of data collection methods, selected for their appropriateness to the objectives, research questions and the approach taken (Robson, 2011). It employs the *researcher-as-instrument* approach where suitable interviewing and observational methods are utilised to collect and analyse data from the subjective reality of participants in the field until diminishing returns of emerging concepts is reached (Denzin and Lincoln, 2008). These are explained in the sections to follow.

### **3.6.2 Preparation for Data Collection – Literature Review**

The aim of the literature review was to achieve the first objective; ‘to review the literature relating to the main research aim, such as the current socio-economic paradigm and its effects on happiness, meanings of home, creativity, design as a facilitator of happiness and creativity, Service Design and Art Therapy. It used a literature review to enhance sensitivity for future data collection (Corbin and Strauss, 2008) by identifying key authors, concepts, disciplinary cross comparisons, definitions (see Appendix A), and supplied the basis for initial theoretical concepts that informed the direction of the Preliminary Study, pilots and Main Studies (see Figure 3.2).

### **3.6.3 Phase I Exploring: Preliminary Study and Study I**

The purpose of Phase 1 (see Figure 3.2) is to achieve the second objective; ‘to identify ways of enhancing home happiness’. It consists of the Preliminary Study—to test potential elicitation methods—and Study 1—to collect data achieving this objective.

#### **3.6.3.1 Phase I Data Collection Methods**

The Preliminary Study used **photo** and **video elicitation** methods to collect data. Study 1 data collection methods were outlined by the outcomes of the Preliminary Study and utilised **photo elicitation** for data gathering—explained in forthcoming Chapter 4. Photo and video elicitation are interview methods that use prompts created or supplied by the researcher or created by the participant(s) (i.e. video or images) to encourage engagement in relevant topics prior to the session and stimulate discussion during it (Henry and Fetters, 2012). They were employed during Phase 1 for the following reasons:

- They can be used to *sensitise* the researcher to emic experiences of participants; participant-generated photography can enhance understandings of people’s

emotional experiences (Lo, 2011a) and encourage participant reflection on previously unconsidered everyday activities (Rose, 2012; *ibid*). In this instance, they illustrated a means of exploring individuals' perceptions of home happiness and how their everyday routines influenced it.

- Photo and video elicitation can activate both old areas of the brain—used for processing visual information—and new—employed for discerning words (Harper, 2002). The video clips can allow interviewees to relive experiences when watching it played back, and both footage and images can serve as a memory aid and points of reference for both parties to improve overall understanding (Harper, 2002; Henry and Fetters, 2012). Additional research also shows that images lead to more accurate participant recollections than other media during interviews (Carter and Mankoff, 2005). They therefore presented methods that could encourage more certain descriptions of home happiness and related actions from participants, while keeping them emotionally engaged during interview sessions.
- Photo and video elicitation allow the researcher to give participants clear instructions, such as to capture specific visual aspects while also enabling participants to take control of the mediums and take initiative in executing them. The literature review also highlights privacy as a central component of the contemporary Western home (see Section 2.2.1.1) and elicitation methods (see Section 2.4.3.1) to be less demanding on participants than others. For example, the probe method could require participants to fill out diary entries or complete other annotated exercises, which may actively interfere with home activities and for this reason may be less effective at capturing 'in the moment' activities. Photo and video elicitation therefore allowed the collection of data in a semi-open, non-intrusive manner, and were chosen as methods that would cause minimally disruptive to home life. They were hence deemed the most effective to begin the data collection for this enquiry.

Follow-up **semi-structured interviews** were chosen as a method to explore the participants' photo and video material in greater detail. Semi-structured interviews enable the researcher to change the direction of the enquiry in response to interesting reactions or non-verbal cues from participants during the sessions to investigate any underlying motives from responses in real time (Robson, 2011). For this research, this facilitated the creation of

prepared interview questions, based on the findings of the literature review (i.e. meanings of home) to elicit related responses on home happiness but also provided the researcher with flexibility to ask additional questions to interesting responses (see Appendix B for sample questions). Interview questions were divided into sections: introduction, warm-up, main and cool-off to ease participants in and out of in-depth discussions (Robson, 2011).

Moreover, the photo elicitation method was employed as a **combined creative and interview method** for Study 1. Creative methods involve getting participants to make things, providing access to latent knowledge, as previously explained in detail in Section 2.4.3. Furthermore, creativity through image making can engage the emotional centres of the brain (Lusebrink and Alto, 2004) and can also be used to encourage positive emotion from experiences of 'flow' (Nakamura and Csikszentmihalyi, 2002). A creative method can hence aid in engaging and sensitising participants to relevant subjective experiences prior to interview, enabling richer and more truthful discussions. In this case photo elicitation was used as creative method to encourage emotional engagement and reflection around home happiness from participants. The details of this are expanded upon in forthcoming Section 4.5. Lastly, Phase 1 data collection tools included **video, imagery, digital voice recordings, transcriptions, memos and field notes**.

Notably, as photo and video elicitation, and interview methods are highly interpretive, personal biases are difficult to rule out; they hence require continuous critical reflection and maintenance of neutral questioning and stance with interviewees during sessions to improve the validity of findings (ibid). In this case, the researcher acknowledges that her own experiences of home happiness and unhappiness may alter the collection of data and subsequent analysis of Phase 1 results. To counter this, theoretical sensitivity (Oktay, 2012) on previous research around home and happiness was built through literature review (previously discussed in Chapter 2), enabling the researcher to frame data collection (i.e. interview questions) and analysis (i.e. sensitising questions) around queries relating to these concepts. Related data analysis is explained in subsequent Section 3.6.3.2.

### **3.6.3.2 Phase I Data Analysis Techniques**

The first stage of data analysis the Preliminary Study involved creating *sensitising questions* (i.e. What do these home actions/images infer about home happiness?) (Corbin and Strauss,

2008), using the second objective (see p. 83) and previous literature (i.e. home is a representation of the self and home actions can be representative of needs for home happiness) as guidance, to facilitate *deep reflection* in analysing the effectiveness (i.e. pros and cons) of the photo and video elicitation in answering this. Sensitising questions can be viewed as ‘tools’ for constructing interpretations from data, employed to sharpen the *researcher-as-instrument* approach (Gillespie and Cornish, 2014). In this case, these questions informed *a priori themes* for organising data (i.e. field notes and memos). Field notes were generated during semi-structured interview sessions to record responses and important reactions (i.e. enthusiastic descriptions), and memos were used afterwards to capture emerging thoughts about each method. Memoing is essential to a grounded theory process; they provide a system for keeping a record of all emergent theories, themes, codes and questions (Corbin and Strauss, 1990). They allow for the construction and revision of theory throughout the research. Memoing was guided by the sensitising questions (i.e. Is there enough content to—reach theoretical saturation—make useful conclusions about home happiness?). Segments of memos and field notes were subsequently grouped in relation to the question they answered. The *constant comparison* technique (Robson, 2011) was then used to compare results from both methods, *open code* (Corbin and Strauss, 2008) these into pros and cons of each method and select the most appropriate for Study 1. Comparisons help the researcher to limit bias as it allows emerging ideas to be scrutinised against new, arising data (Corbin and Strauss, 1990). This also improves accuracy of results by aiding the grouping of similar phenomena, and reliability by always placing ‘like with like’ (ibid). See Appendix C for sample of Preliminary Study data analysis.

Data analysis for Study 1 began by creating *reflective memos* of imagery generated by participants prior to semi-structured interviews to capture initial impressions of content. Post-interview, *session summary sheets*, commonly used to sensitise the researcher to how data answers research objectives (Robson, 2011, p. 473), were employed in this case to analyse how interview responses met the second objective (see p. 83). Moreover, further memoing was conducted to record emerging theoretical concepts. See Appendix D for examples of each. Additionally, this study was used to get a *sense* of the field. To that end and to avoid ‘word overload’ through line-by-line scrutiny (Sandelowski, 1995 cited in Heath and Cowley, 2004), the next stages of Study 1 data analysis involved transcribing the majority of the audio interview data. These segments were decided by closely listening to recordings while viewing



accompanying imagery to pick out responses that exhibited the strongest expressions of home happiness/unhappiness, again using the constant comparison technique to reduce personal bias.

Transcribed data was then manually grouped into codes and themes on digital text documents using *thematic analysis* (Braun and Clarke, 2006) and *open coding* (Corbin and Strauss, 2008). Thematic analysis is a technique for capturing and describing emerging associations in data where patterns can be located inductively (i.e. allowing findings to be data-driven) or deductively (i.e. seeking categories to answer a specific question). As this data analysis was theory-led, it used this approach to *inductively* generate an initial theory (ibid). Furthermore, thematic analysis allows for more flexibility than creating a ‘full fat’ grounded theory. This supported a focus on sensitising the researcher to home happiness and answering the second objective (see p. 83) in preparation for tackling the Main Research Question (see p. 7) in later studies. Sensitising questions such as, ‘What are people doing in their daily routines?’ were then used to tune the researcher into what the data might be indicating to begin *open coding* the data (Corbin and Strauss, 2008) alongside the thematic analysis. Opening coding involves interpreting scenarios, behaviours and interactions in the data, giving them new conceptual names (Corbin and Strauss, 1990). This is employed to facilitated novel conclusions about phenomena, creating new understandings. For this research, it enabled the conceptualisation of initial codes that corresponded to themes located through the thematic analysis, deepening meaning for both.

The *constant comparison method* and the *flip-flop* technique were then used to *axial code* (i.e. links were drawn between emerging codes, grouping them into relevant themes) the data (Corbin and Strauss, 2015). The flip-flop technique involves turning concepts inside out in order to gain a better understanding of their significance in the context under study (ibid). In this instance, it was used to group various codes under relevant categories by comparing opposite scenarios, such as if achieving one’s goals led to happiness then the opposite could contribute to unhappiness. The constant comparative method was also employed to repeatedly compare arising concepts, locate commonalities and continuously rework groupings and codes into a sound initial theory (Corbin and Strauss, 2008, 2015). Examples of thematic, open and axial coding are illustrated in Appendix E. The *counting technique* (Miles and Huberman, 1994, p. 215) followed this. It was used to identify which themes

and properties appeared with more or less frequency. This involved using a sheet of collected codes and themes to manually count all instances in every transcription. Handwritten memos were also employed during this process to clarify the researcher’s thinking and limit personal bias influencing the outcomes for each category (see Appendix F for samples).

Lastly, as previous work has shown a correlation between happiness and sustainability cues (Escobar-Tello, 2011; Escobar-Tello and Bhamra, 2013), this analysis strategy aimed to situate this within the home in order to establish what inhibited or enabled home happiness and how this related to sustainability. A deductive analysis was therefore carried out on finalised themes and properties using Escobar-Tello’s a priori codes for happiness triggers and sustainable society characteristics (2010, p. 63) (see Table 3.2).

Table 3.2– A Priori Codes (Escobar-Tello, 2010, p. 63) Used During Analysis of Study 1

|            | <b>CODES</b>  | <b>CLUSTERS</b>                               |              |
|------------|---------------|---|--------------|
| Macro-code | <b>Sust</b>   | <b>Issues relating to Sustainable Society</b> |              |
|            | Sust-low      | Low Material Consumption                      | Sust Cluster |
|            | Sust-inter    | High Social Interaction                       |              |
|            | Sust-needs    | Basic Needs Satisfaction                      |              |
|            | Sust-sha-PS   | Sharing Products and Services                 |              |
|            | Sust-slow     | Slow Change                                   |              |
|            | Sust-holistic | Holistic Health and Education                 |              |
|            | Sust-virt     | Virtuousness Skills & Ethics                  |              |
|            | Sust-comm     | Communities                                   |              |
|            | Sust-pro-act  | Pro active citizenship                        |              |
| Macro-code | <b>Happ</b>   | <b>Issues relating to Happiness Triggers</b>  |              |
|            | Happ-self     | Self-esteem                                   | Happ Cluster |
|            | Happ-active   | Extraversion                                  |              |
|            | Happ-goals    | Goals   |              |
|            | Happ-aware    | Gratitude Journal                             |              |
|            | Happ-give     | Acts of Altruism and Kindness                 |              |
|            | Happ-connect  | Interacting with People                       |              |

This allowed initial connections to be hypothesised between home happiness behaviours and sustainable lifestyles. Finally, all results, such as transcription extracts, codes, themes and a priori codes were collated into table to enable a rapid understanding of the analysis process and quick comparisons with future data. See Appendix G for samples of Study 1 deductive

data analysis and table organisation. Accordingly, the analysis and findings of all interviews and memos informed the next round of data collection.

### **3.6.4 Phase 2 Theory Building: Pilot and Study 2**

The aim of Phase 2 (see Figure 3.2) is to answer the third objective; ‘to test the use of art therapy techniques in conceptualising home happiness triggers into explanatory terms, such as design tools and frameworks’. It comprises of a pilot—to test specific art therapy techniques for this purpose—and Study 2—to gather data obtaining this objective.

#### **3.6.4.1 Phase 2 Data Collection Methods**

The literature review highlighted that art therapy techniques promote extended emotional awareness from participants when compared with other creative methods in design research (see Section 2.5). Therefore, **Art Therapy-led workshops** were the primary means of data collection for Phase 2, totalling to three workshops; a pilot workshop and two consisting of Study 2. The pilot allowed for testing of particular art therapy techniques for their effectiveness in answering the third objective (see previous Section 3.6.4). Pilot findings were then used to formulate Art Therapy-led workshops in Study 2 for this purpose, discussed in detail in forthcoming Chapter 5.

Art Therapy-led workshops employ art therapy techniques such as silent and spontaneous art making that appear to facilitate deep individual reflection and sensitisation to one’s internal emotions, previously explored in Section 2.5.2. They enable the participation and creativity of all members at the same time at their own level, and group members can learn from each other’s feedback—as much of social learning is conducted in groups (Liebmann, 2004). Furthermore, a workshop format allows for quick production of artefacts to assist group discussions and offers a time efficient method of gathering data from multiple participants. Workshops also allow the observation and gathering of ‘live’ data, by viewing/interpreting directly what is taking place (Cohen, Manion and Morrison, 2011). This enables the facilitator to apply multiple methods and approaches in the same instance while observing the impacts of each first-hand. The ‘**participant observation**’ approach was hence used as a data collection technique; the facilitator adopted the role of ‘**participant-as-observer**’ (Robson, 2011) in which concepts and instructions were narrated to participants but activities and materials were also demonstrated where necessary to aid in understanding

and comprehension. Additionally, **documentary analysis** (Robson, 2002) was used to examine resulting artefacts from workshops and prepare questions for later one-to-one **semi-structured interviews**. Documentary analysis is a qualitative research method in which relevant documents are examined to create understandings around certain themes (Bowen, 2009). These documents can fall into three categories: public records (i.e. reports), personal documents (i.e. diaries) and physical evidence (i.e. paintings)(O’Leary, 2014). In this case, documentary analysis was carried out on artwork (physical evidence) resulting from Phase 2 Art Therapy-Led workshops. A technique involved in documentary analysis is to note occurrences of particular content in the data and then arrange it in relation to relevant research questions (Bowen, 2009). Notably, as art therapy philosophy dissuades interpretation of participant artwork by others (discussed in Section 2.5.2), this approach was only used to identify qualities in the artwork, such as use of colour and placement of objects, to help frame appropriate interview questions for each person.

Phase 2 data collections methods also included **unstructured** and **semi-structured interviews**. Unstructured interviews allow the informant to generally lead the interview discussion (Robson, 2011). One-to-one unstructured interviews were therefore carried out during the pilot workshop only to gather information on workshop improvement, enabling participants to comment more freely on aspects that stood out. An individual semi-structured interview was used to verify specific art therapy techniques for inclusion in Phase 2 Art Therapy-led workshops with an art therapy expert. This allowed the researcher to create prepared questions generated from literature review on art therapy techniques (see Section 2.5) but also allowed the art therapist space to discuss areas the researcher was not aware of or had not considered. See Appendix H for examples of interview questions and responses. Semi-structured interviews were also conducted with all participants of Phase 2 after Art Therapy-led workshops to explore workshop-generated content more intensely (see Appendix I for interview schedule example). These were employed to afford participants a more private space for open reflection and offer them extra time to consider topics discussed during workshop sessions. Additionally, this allowed surplus time for specific questions regarding each participants’ workshop artefacts and reflections to be created.

Phase 2 data collection tools included **field notes**, **feedback forms**, **transcriptions**, **memos**, **video** and **audio footage**. Feedback forms offered a rapid means of gathering the

most relevant participant impressions of the workshops, such as if it made them deeply and emotionally reflect about their home. See Appendix J for an example.

#### **3.6.4.2 Phase 2 Data Analysis Techniques**

The data analysis for Phase 2 was concerned with assessing the usability of various art therapy techniques and, subsequently, choosing the most suitable to answer the third objective (see p. 89). This was carried out by analysing resulting workshop audio/video footage and transcriptions of semi-structured interviews for evidence of deep emotional reflection from participants, emergent themes and their relationships to home happiness. To begin this, *session summary sheets* and *memos* were utilised to clarify overall impressions after workshop sessions, unstructured and semi-structured interviews (see Appendix K). Resulting artefacts from workshops were also examined—to construct interview questions—using *deep reflection* on relevant art therapy themes, such as colours, compositions characteristics and content (Malchiodi, 2007). Full transcriptions of workshop and semi-structured interview audio recordings were then created to *sensitise* the investigator to relevant responses. These were then *open coded* electronically on text documents and *sensitising questions* (i.e. what supports positive family experiences?) were then used to further investigate emerging themes and codes (see Appendix L). *Theoretical memoing* was then incorporated in both an annotated and visual manner to organise and regroup (i.e. axial code) occurring codes and themes. The visual memoing in particular used corresponding theories, such as ‘authentic happiness’ (i.e. The Good Life)—previously covered in Section 2.1—to *ground* the data within relevant concepts, increasing plausibility and limiting internal bias from the researcher (see Appendix M). The *constant comparison technique* was then used to rework revised codes and themes back into the data (see Appendix N) and further develop theoretical visualisations—final versions are discussed and depicted in forthcoming Chapter 5.

#### **3.6.5 Phase 3, Part 1 Theory Development: Design Tools and Process Development**

The purpose of Phase 3, Part 1 (see Figure 3.2) was to answer the *first part* of the fourth objective, ‘to develop... ‘designing for home happiness’ design tools and framework for use with service design approaches’, enabling its full achievement through Phase 3, Part 2. It involved the initial conceptualisation of design tools and corresponding process for deployment in Phase 3, Part 2. Furthermore, to achieve these aims, it was necessary to revisit

data from Study 1 and the literature review to construct a persona (see Section 2.4.2.1) to narrow the ‘design focus’, support user empathy and increase the relevance of resulting concepts for UK family households in later Phase 3, Part 2 studies.

#### **3.6.5.1 Phase 3, Part 1 Data Collection Methods**

Before employing Study 2 findings for the development of design tools and accompanying process for creating home happiness designs, it was necessary to further verify the emerging theory with additional participants to improve its robustness. A **questionnaire** was chosen for this purpose as it could gather large quantities of standardised data in a short space of time and it allowed for anonymity—resulting in more truthful responses (Robson, 2011). Questionnaires use predefined questions in a predetermined order with each participant and can be conducted with (interviewer completed) or without the researcher present (self-completed), through the web (internet-mediated), intranet, post (mail questionnaire), telephone or delivered by hand (Akinci and Saunders, 2015). Moreover, a variety of concerns must be considered in questionnaire design, such as sample size needed, significant individuals to include, types and number of questions required, and measures to reduce contamination of answers (Saunders, 2012). Phase 3, Part 1 therefore used a *self-completed questionnaire* that was *internet-mediated* in order to expand the reach to respondents beyond the Study 2 sample. Questions were also kept short and to-the-point to encourage responses and limit misunderstandings. Questionnaire questions can be closed (i.e. prescribed answers) or open (i.e. free responses) (Akinci and Saunders, 2015). Two of the questions were open-ended to invited participant descriptions and explanations of events directly related to Study 2 results. The remaining question was closed to encourage individuals to categorise this moment within those drawn from Study 2 findings. See Appendix O for examples of questions. Admittedly, it is difficult to decipher the honesty of questionnaire responses and misunderstandings of questions may occur unknowingly (Robson, 2011). Accordingly, these results were triangulated against Study 2 findings to improve validity.

Following this, a **literature review** of effective creative techniques was used to identify important components for the design tools and process to facilitate Phase 3, Part 2 activities. For example, templates were revealed as those that could visualise and guide specific design ‘patterns’, enabling a more productive and focused design process (Goldenberg *et al.*, 1999). Furthermore, it was identified that designers are inspired by pictorial demonstrations as

opposed to text heavy descriptions (Lofthouse, 2006). Full discussion of this is covered in forthcoming Section 6.3. Consequently, **documentary analysis** of Study 2 findings, such as visualisations of the theory, was carried out to pinpoint suitable ‘patterns’ for composing templates and content for explanatory visuals to guide data collection amongst participants. Collectively, these resulted in initial design tools for Phase 3, Part 2. Their full development is discussed in Chapter 6.

### **3.6.5.2 Phase 3, Part 1 Data Analysis Techniques**

Data analysis of the anonymised questionnaire employed the *template analysis technique*. Template analysis is a way of thematically coding a piece of data using a coding template that illustrates main themes and a priori codes to be examined and modified if necessary (Symon and Cassell, 2012). It is a very flexible approach that can be adapted to the requirements of any study. As results of the anonymised questionnaire were purposed with further testing Study 2 results, themes and a priori codes created from Study 2 findings were used within a template to analyse questionnaire responses and further verify or advance the emerging theory (see Appendix P). Additionally, the ‘patterns’ used to conceptualise templates for initial design tools for Phase 3, Part 2 were developed further using hand scribed *reflective memos* (see Appendix Q).

Lastly, it was necessary to include a persona in these design tools to provide a ‘user focus’ for subsequent design activities and facilitate user empathy, improving suitability of resulting outcomes. This was conducted by revisiting data and findings from Study 1, and related literature that provided guidance on this. The persona development process by Cooper, Reinmann and Cronin (2007, pp. 97–98) was employed to facilitate this process. It advocates for the location of ‘key variables’ amongst the target user group, ‘significant behavioural motifs’ and employing these to understand significant goals, motivations and pain points. Data analysis for this, therefore incorporated the visualisation of rating scales for key variables (see Appendix R), located by reviewing previous Study 1 findings (i.e. how activities for home happiness were achieved) and employing the *constant comparison technique* to arrange these relative to others in the data. This also worked as a sensitisation exercise to allow for the identification of final key variables through deep reflection. These were further validated using hand written memoing (see Appendix S) that compared these to related accounts in Study 1 data. This approach was also employed when analysing Study 1 data for

conceptualising important goals, motivations and pain points to be included in the persona (see Appendix T). Full details of this process are explained in forthcoming Section 6.3.1.2.

### **3.6.6 Phase 3, Part 2 Theory Implementation: Pilot and Main Studies**

The purpose of Phase 3, Part 2 (see Figure 3.2) was to answer the fourth objective *in full*, ‘to develop and implement ‘designing for home happiness’ design tools and framework for use with service design approaches’, and the fifth objective, ‘to examine the implications of using art therapy techniques within Service Design to improve home life happiness for future happy homes, Service Design and social innovation’. This phase consisted of a pilot, Main Study 1 and Main Study 2. It involved the implementation and development of a framework, including design tools and process, for ‘designing for home happiness’ by deploying these in ‘real world’ contexts and analysing their effects.

#### **3.6.6.1 Phase 3, Part 2 Data Collection Methods**

Apart from art therapy and interview techniques, Phase 3, Part 2 used data collection methods such as **workshops**, ‘**participant observation**’ through ‘**participant-as-observer**’ in the same way as Phase 2 with corresponding rationales (see Section 3.6.4.1.). The pilot, Main Study 1 and Main Study 2 each comprised of one workshop each. **Documentary analysis** of resulting artefacts, such as sketches and annotated notes, was also utilised to gather data on the effectiveness of design tools in facilitating ‘designing for home happiness’.

Regarding data collection tools, Phase 3, Part 2 mirrored Phase 2, employing **audio/video footage**, **feedback forms**, **transcriptions**, **field notes** and **memos** in the same manner (see Section 3.6.4.1.). See Appendix U for examples of feedback forms. Additionally, the **design tools**, specifically the **templates**, served as another data collection tool; they enabled the recording of participant ideation and thought processes during the workshops. Examples are illustrated in forthcoming Section 7.6.1.

#### **3.6.6.2 Phase 3, Part 2 Data Analysis Techniques**

For the data analysis of Phase 3, Part 2 workshops, *session summary sheets* and *analytical memos* were employed at the end of each to reassess thoughts and critically consider the robustness of the theory and corresponding design tools. *Close examinations* of workshop footage, audio and resulting artefacts (i.e. completed templates and sketches) were then used to locate



responses that illustrated an understanding of the theory demonstrated and stimulation of creativity. Sections of workshop discussions were also transcribed to further sensitise the researcher to these themes. During this, *sensitising questions* (i.e. what are the benefits of using these tools over others?) were employed to amplify important aspects of designers' interactions with the tools that demonstrated comprehension of related theories, deep contemplation, and artistic support during their deployment (see Appendix V). A *thematic analysis* was then conducted to identify emerging categories in relation to these questions (also see Appendix V)—final themes are discussed in detail in Section 7.6.1. Subsequently, a *template analysis* was used to assess the success of the design tools and workshop through review of design outcomes using transcribed workshop discussions (see Appendix W). Notably, as it was the researcher's desire that these tools were successful, it was important to compare these results with others to improve validity, generalisability and limit bias obscuring the data. The *constant comparison technique* was therefore also used to triangulate these findings against workshop artefacts (i.e. completed templates and feedback forms) to minimise this. Furthermore, all results were collectively reviewed and critically evaluated through *theoretical sensitivity* built from previous studies; they were examined against criteria for 'designing for home happiness', defined by the preliminary theory—discussed in forthcoming Section 5.5.1.8—and Service Design—explained in detail in later Section 7.6.1.2 and Section 8.7—to explore their potential contribution to these areas.

### **3.7 Sampling Strategy**

The plan for the research was ambitious—see aim and objectives (p. 7). It was therefore important to consider the feasibility of this research project within its allocated time of 3 years and the resources available when deciphering the sampling strategy. Phase 1 (Preliminary Study and Study 1) and Phase 2 (pilot and Study 2) used *convenience* (Dey, 2007; Cohen, Manion and Morrison, 2011, p. 155) and *criterion sampling* (Creswell, 2013, p. 119). Phase 3 (pilot and Main Studies) employed *criterion sampling* only.

The Preliminary Study and Phase 2 pilot used *convenience sampling* as their primary purpose was to test the suitability of different data collection techniques. It is noted that convenience samples are not theoretically driven, nor do they provide a reliable representation of groups they happen to be from and so were solely used for the evaluation of methods. Participants were sought primarily through Loughborough University for time

efficiency and accessibility, allowing the most suitable methods to be quickly identified. Study 1, Study 2, Phase 3 pilot and Main Studies employed *criterion sampling* as they were *theoretically* driven; participants who could contribute to the evolving theory were chosen (Creswell, 2014, p. 118) and appropriate sample numbers were sought to create sufficient data for conceptualising the theory within the available time frame (Cohen, Manion and Morrison, 2011). Regarding this, it was possible to recruit some of the previous participants from Study 1 for Study 2, but it was also necessary to obtain further individuals to reach *theoretical saturation* (Corbin and Straus, 2008). Study 1 recruited homeowners with families. The criteria were as follows:

- Homeowner
- Living with family
- UK resident
- Adult (over the age of 18)

UK homeowners with families were chosen because their homes were more representation of home happiness and unhappiness triggers; they generally had more freedom to alter their homes to personal preferences when compared with those renting—discussed in detail in Section 4.4.1—and less time and resources to maintain happy and sustainable lifestyles due to their responsibilities. Sampling for Phase 1 is summarised in Table 3.3 (see Section 4.3 for further details):-

Table 3.3 – Summary of Phase 1 Sampling

| Study               | Preliminary Study   | Study 1  |
|---------------------|---|--|
| Sampling Type       | Convenience Sampling                                      | Criterion Sampling   |
| No. of Participants | 7 participants  | 13 participants from 10  |
| Breakdown           | 2 female homeowners<br>2 female renters<br>3 male renters | households<br>7 female family homeowners<br>6 male family homeowners |
| Age Range           | 25-50   | 25-53  |

Study 2 was concerned with the exploration of ‘positive family experiences’ (explained in detail in Chapter 5). To investigate these moments in depth, it was necessary to seek participants currently having ‘family experiences’ on a regular basis. The criterion of Study 2 sample therefore included:

- UK resident

- Living with family or partner
- Adult (over 18 years of age)
- One of the main decision makers in the household

By being presently part of these situations, they could reflect on the positives and negatives of family life more accurately in comparison to those living alone or with acquaintances. Notably, individuals may be living in a ‘families of choice’ set-up (Duncan and Phillips, 2008) where family-like relationships and interactions are exhibited through long-term friendships. As it was difficult to differentiate these connections from those that are more casual without proper investigation, this group was excluded from the sampling criteria for time efficiency during recruitment. Moreover, those who were ‘one of the main decision makers in the household’ would have a greater influence on and knowledge of its overall dynamics and, therefore, be able to offer more accurate insights into how these came about to create, for example, positive family experiences. Lastly, this sample was intentionally kept small as Study 2 employed Art Therapy-led workshops and the recommended size for these is between six and 12 (Liebmann, 2004). Sampling for Phase 2 is summarised in Table 3.4 (see Section 5.3 for full details):-

*Table 3.4 – Summary of Phase 2 Sampling*

| Study               | Pilot for Study 2                        | Study 2   |
|---------------------|--|---|
| Sampling Type       | Convenience Sampling                     | Criterion Sampling  |
| No. of Participants | 4 participants                           | 11 participants from 11 households                                  |
| Breakdown           | 2 female colleagues<br>2 male colleagues | 10 females from family households<br>1 male from a family household |
| Age Range           | 27-55                                    | 31-51   |

Phase 3—pilot, Main Study 1 and Main Study 2—was tasked with developing design tools and overall process from Phase 2 findings and evaluating these with service design methods. It was therefore necessary to test the design tools and process with intended future users, namely designers, to validate their success and/or make necessary modifications or review findings. For the pilot, six individuals from design backgrounds, more generally, were recruited. This provided an adequate number of individuals to create two design teams during the workshop session, providing two scenarios where the deployment of workshop tasks and tools could be witnessed concurrently. Not all had knowledge of service design methods as its focus was to develop a suitable workshop format to later test and refine the design tools and process through the Main Studies. The small group size also made

explanations of service design tools possible without depleting from the pilot's main goals and allowed for close observations of responses to design tools and tasks. The criteria for Phase 3 pilot sample were as follows:

- UK resident
- Adult (over 18 years of age)
- Background in design (i.e. completed a design course and/or worked as a practitioner)

Main Study 1 was tasked with refining the design tools and process developed from Phase 3 pilot. Its sampling criterion was therefore defined by its intended audience and future users to generate the most reliable data:

- UK resident
- Adult (over 18 years of age)
- Design expert (i.e. design practitioner and/or design academic)
- Knowledge of service design methods

To maintain focus on critiquing and finalising the overall process and design tools, only design experts with prior knowledge of service design methods were sought to avoid additional explanations being required. Furthermore, UK residents were sought to maintain cultural continuity with subsequent findings.

Sharing the same objectives as Main Study 1—evaluating and developing the design tools resulting from Phase 2 findings with service design methods—Main Study 2 sought design experts competent with service design tools for the same reasons as previously outlined for Main Study 1. However, having already tested and modified the workshop tools and process with a UK audience, Main Study 2 sought to trial this near-finalised version in a new context with Irish users. In this manner, the design tools and process could be evaluated for their transferability in varying settings with different cultural perspectives. Main Study 2 sample criterion were:

- Residing in Ireland
- Adult (over 18 years of age)
- Design expert (i.e. design practitioner and/or design academic)
- Knowledge of service design methods

Sampling for Phase 3 is summarised in Table 3.5 (see Section 7.3 for further details):-

Table 3.5 – Summary of Phase 3 Sampling

| Study               | Pilot                | Main Study 1        | Main Study 2         |
|---------------------|----------------------|---------------------|----------------------|
| Sampling Type       | Criterion Sampling   | Criterion Sampling  | Criterion Sampling   |
| No. of Participants | 6 participants       | 6 participants      | 6 participants       |
| Breakdown           | 2 males<br>4 females | 1 male<br>5 females | 5 males<br>1 females |
| Age Range           | 25-55                | 29-57               | 27-56                |

### 3.8 Research Validity and Transferability

Rigour in the conceptualisation of findings are essential to guarantee the transferability and validity of research outcomes (Morse *et al.*, 2002). This is conducted through continuous verification, such as checking and being certain of outcomes, throughout the research process. In a qualitative context it is advisable that these mechanisms are knitted tightly into the project as a whole (Creswell, 2007, 2013) in order to locate mistakes/misinterpretations or biases as they emerge before they compromise overall results (Morse *et al.*, 2002). In this, verification strategies assist the investigator in understanding when to halt and modify tactics or re-evaluate findings, ensuring reliability in final outcomes (ibid). Furthermore, Robson (2011) states that the credibility of a flexible research design is apparent if these verification strategies are overt, displaying a clear path from original data to emerging findings. There are numerous tactics that can be employed. Table 3.6 summarises the main strategies used, as described by Creswell (2007), Morse *et al.* (2002), Lincoln and Guba, (1985), Miles and Huberman (1994), and Golafshani (2003).

Table 3.6 – Verification Strategies for Research Validation and Repeatability

| Verification Strategies | Procedure   |
|-------------------------|---|
| Triangulation           | More than one method is utilised to collect data from the same sample and results are compared and combined to formulate findings |
| Appropriate sampling    | The sample comprises participants who best represent or have strong knowledge of the research area                                |

|   |   |
|---|---|
| Peer review or debriefing                     | Those educated in the field of study scrutinise findings as they emerge, asking hard questions to bring to light any weaknesses in the research that require further critical review          |
| Evolving hypothesis                           | In a grounded theory approach, the researcher comprises an initial theory from findings as they emerge, constantly reworking this concept until all cases in the data have been accounted for |
| Reviewing findings with participants          | Informants of research studies are asked for feedback on findings to judge the accuracy and credibility of accounts   |
| External checking of research process         | An audit of the research journey is conducted by someone unconnected to the project to investigate whether the findings are supported by the data   |
| Evaluating procedures for representative data | Data figures and reports (i.e. aims, objectives, processes, methods) that detail clear stages in analysis and evaluation of studies and resulting conclusions are created                     |

### *Triangulation*

For Study 1 of this research, results from analytical memos, session summary sheets and semi-structured interview transcriptions were triangulated against each other to increase the reliability of overall findings. Similarly, during Phase 2, transcriptions, feedback forms, audio and video recordings, and artwork generated from the pilot and Study 2 workshops were compared with discussions of follow-up one-to-one semi-structured interviews. Phase 3 also utilised multiple methods in compiling and validating results such as, documentary analysis of artefacts from Main Study workshops, corresponding feedback forms, recorded audio and video workshop footage, and field notes.

### *Appropriate Sampling*

Study 1 used criterion sampling to recruit homeowners with families to answer the second objective; ‘to identify ways of enhancing home happiness’, as their homes, having more freedom to those renting, would provide a better illustration of happiness practices and be fruitful in capturing related compromises. Furthermore, criterion sampling was employed for Study 2 to obtain participants currently engaging in ‘family practices’ daily to satisfy the third

objective; ‘to test the use of art therapy techniques in conceptualising home happiness triggers into explanatory terms, such as design tools and frameworks’, as they could offer better elaborations of cohabiting home happiness experiences. Accordingly, the Main Studies compiled participants with the criteria of *being designer experts* with knowledge of service design methods to fulfil the fourth objective; ‘to develop and implement ‘designing for home happiness’ design tools and framework for use with service design approaches’, and fifth objective; ‘to examine the implications of using art therapy techniques within Service Design to improve home life happiness for future happy homes, Service Design and social innovation’.

### ***Peer Review***

All findings from this body of research, including data collections methods, analysis strategies and approach have gone through a peer review process and have been published in relevant academic journals or conference proceedings.

### ***Evolving Hypothesis***

This research takes a grounded theory approach; the findings of each round of data collection necessarily informs the next, the emerging theory is constantly reworked in accordance with the latest results and additional sampling is sought to reach theoretical saturation (i.e. it covers all relevant scenarios).

### ***Reviewing Findings with Participants***

Findings from Study 1 were shared with participants. Results were presented in both a simplified form, such as a summary of main points, and in a more comprehensive manner—a published paper for example—through email, and feedback responses were encouraged. Furthermore, Study 2 workshops utilised feedback forms which allowed participants to give anonymised opinions on their experience of sessions, including activities and techniques employed. Further critiques of Study 2 workshops were also invited and explored during follow-up one-to-one semi-structured interviews with volunteers. Additionally, feedback forms were employed in the Main Studies workshop to capture participant perspectives on the effectiveness of design tools and the framework being tested.

### *External Checking of Research Process*

This research's journey, including procedures, methods, data analysis and findings were checked by an internal assessor on numerous occasions. This flagged up any inconsistencies or uncertainties in need of greater scrutiny that may have affected the validity of the research's final outputs and conclusions. Accordingly, these areas were attended to after each audit.

### *Evaluating Procedures for Representative Data*

Throughout this research, the procedures followed for the validation and evaluation of each study, such as data collection methods and analysis techniques, have been collated into reports to clarify steps taken towards ultimate conclusions.

## **3.9 Ethics**

It is essential to consider the ethical implications of any research study, especially when it involves live participants. Having a rigorous ethical approval system embedded in the research design ensures both protection of the researcher and research volunteers by employing measures such as confidentiality, anonymity, informed consent (Sanjari *et al.*, 2014), and conducting research with participants in public settings. This research included observational and interview methods; participants were observed in workshops scenarios and were interviewed about their home experiences and impressions of workshop sessions. At the beginning of each study, an ethics clearance checklist provided by the Loughborough University Ethics Advisory Committee was carried out and all participants were given participant information sheets to read—detailing the objectives of the study, what data would be collected and how it would be used etc.— and informed consent forms to sign. See Appendix X for an example of each. As this research did not target vulnerable groups or incentivise participation, it was not necessary to seek full approval from the Loughborough University Ethics Advisory Committee—completed checklists were, however, reviewed by the ethics representative for Loughborough Design School on each instance. This research consciously avoided vulnerable groups in relevant studies (i.e. Study 1 and Study 2) as a precautionary measure because it sought to use art therapy techniques for the first time in a design research scenario and it dealt with home happiness, which could elicit sensitive issues. For example, sample criteria for all studies included persons over the age of 18.



To protect participant identity, all names were changed to numerical references (i.e. Participant 1) and detailed statements that included people's names and locations were omitted from transcript extracts when reporting on results. To secure participant data, all related materials such as interview transcripts, images, audio and video content were stored on a password protected desktop computer in a swipe card assessable only office at Loughborough University.

Lastly, all interviews and the majority of workshops were carried out within Loughborough Design School with one workshop being conducted at Limerick University. On each occasion, the researcher made colleagues aware of interview and workshop running times and locations as a failsafe against unexpected difficulties arising during sessions—such as a participant becoming very emotional. For example, if a workshop or interview ran over time, a colleague was instructed to check on the researcher. Where relevant, study specific ethical considerations are explained in forthcoming corresponding chapters.

## **4 Phase I: Study I – Exploring Important Needs for Home Happiness**

This chapter reports on the Preliminary Study and Study 1, carried out during Phase 1. Through this phase, the next round of data collection, Phase 2, could be formulated and pursued. The following sections outline the aim and objectives, methodology, rationale, results and findings, conclusions, and considering this, the next steps for this research.

### **4.1 Introduction**

As previously indicated by the literature review, the home plays a significant role in our everyday lives (see Section 2.2), such as a means of expression, and can hence be a significant influence on our happiness. Additionally, previous investigations into the home system/environment/dynamics have neglected or not considered its role in happiness comprehensively (see Section 2.2.2). It is a complex system, and so examining it from a happiness perspective required all relevant interactions to be explored holistically to locate current home happiness triggers. This study hence set out to explore the home from this viewpoint to comprehend how happy experiences could be facilitated in this context. It conducted this by employing elicitation methods, illustrated by the literature review as those that would cause limited disturbance to home life while supporting detailed participant recollections of relevant experiences (see Section 2.4.3.1).

### **4.2 Study Aim and Objectives**

The aim of Study 1 was to answer the second objective; ‘to identify ways of enhancing home happiness’, and on that account, locate potential design opportunities. The objectives of Study 1 were the following:

- To establish essential needs and practices that contribute to home happiness
- To sensitise the researcher to the field
- To guide future activities and discussions to be included in art therapy-led workshops in Study 2.

### **4.3 Methodology**

The research methodology approach for Phase 1 follows the previous discussion in Chapter 3 (see Section 3.6.3), including ethical considerations to ensure the safety of the researcher

and participants through careful study planning and implementation (see Section 3.9). A summary of interpretive methods and strategies employed are displayed in Table 4.1.

*Table 4.1 – Phase 1 Data Collection Methods and Analysis Techniques*

| Data Collection Method | Analysis Techniques                  |
|------------------------|--------------------------------------|
| Video Elicitation      | Analytical & reflective memos        |
| Photo Elicitation      | Session summary sheets               |
|                        | Sensitising & theoretical questions  |
|                        | Flip-Flop technique                  |
|                        | Open coding                          |
|                        | Axial coding                         |
|                        | A priori codes (Escobar-Tello, 2010) |
|                        | Counting technique                   |
|                        | Constant comparison technique        |

Section 4.4 and Section 4.5 discuss how data collection methods were used in specific instances, and Sub-Section 4.4.1 and 4.5.1 present the results of corresponding analysis techniques.

A total of seven participants, three males and females, were used for the Phase 1 Preliminary Study from similar socio-economic backgrounds (i.e. professional middle-class), aged between 25 and 50. Table 4.2 details the sample make-up.

*Table 4.2 – Preliminary Study Sample Breakdown*

| Method            | Participant 1 | Participant 2 | Participant 3 | Participant 4 | Participant 5 |
|-------------------|---------------|---------------|---------------|---------------|---------------|
| Photo Elicitation | F, H          | F, R          | F, R          | M, R          | M, R          |
| Video Elicitation | F, H          | M, R          |               |               |               |

(H= Homeowner, R= Renter, F= Female, M= Male)

Phase 1, Study 1 sample included seven females and six males from 10 UK households with similar socio-economic backgrounds (i.e. professional, middle-class), living locally to Loughborough—aged from 25 to 53. Of the 10 households that took part in this study, the average number of adult (18+) occupants per household was 2.2 people with a range of 1–4 people, and the mean number of children was 1.8 ranging between 1–3 children per household. On average, the age of adult householders was 43 with a range of 25–80 years, whilst the mean age of children was 8.6 years ranging from 1–17 years. Table 4.3 displays Study 1 participant details:-

Table 4.3 – Study 1 Sample Breakdown (shaded boxes indicate those who took part in each household)

| Household (H#) | Adult 1 (A1) | Adult 2 (A2) | Adult 3 (A3) | Adult 4 (A4) | Child 1 (C1) | Child 2 (C2) | Child 3 (C3) |
|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1              | F, 41        | M, 40        |              |              | M, 6         | F, 3         |              |
| 2              | F, 25        | M, 52        | F, 49        | F, 80        | M, 12        | M, 11        |              |
| 3              | F, 45        | M, 45        |              |              | M, 10        | F, 7         |              |
| 4              | M, 43        | F, 37        |              |              | F, 1         |              |              |
| 5              | F, 34        | M, 34        |              |              | F, 1         | M, 4         |              |
| 6              | F, 34        | M, 34        |              |              | M, 4         |              |              |
| 7              | F, 34        | M, 36        |              |              | F, 2         |              |              |
| 8              | M, 43        | F, 42        |              |              | M, 14        | M, 10        |              |
| 9              | M, 53        | F, 48        |              |              | F, 14        | F, 12        | M, 12        |
| 10             | M, 52        | F, 49        |              |              | F, 17        | M, 15        |              |

(F= Female, M= Male, #= Age)

#### 4.4 Preliminary Study – Selection of Elicitation Method

The Preliminary Study tested potential methods and their appropriateness in providing data to answering the second objective; ‘to identify ways of enhancing home happiness’, by asking participants to capture photo and video footage of their home routines over a week. It also aided in narrowing the targeted participant group for Study 1.

The objectives of the Preliminary Study were as follows:

- To test the aptness of photo elicitation (to capture emotional triggers at home) and video elicitation (to capture interactions with the home) in gathering data to answer the second objective (see above)
- To modify the use of such methods where necessary in preparation for Study 1
- To establish the participant criterion for Study 1

The Preliminary Study employed the photo elicitation (Clark-IbaNez, 2004) and video elicitation (Henry and Fetters, 2012). The photo elicitation exercise was aimed at locating the emotional hotspots in the home while the video elicitation activity was purposed with exploring home movements and their happiness effects. Participants were invited to take part in the Preliminary Study both verbally and through email. Upon acceptance, they were each sent a study information sheet, an informed consent form to sign (see Appendix X for examples) and instructions for the task through email. For the photo elicitations exercise, they were asked to captured images that triggered strong feelings (i.e. happiness or sadness) for one week. For the video elicitation activity, they were invited to film themselves, using

their smartphone, doing household activities for the same duration. The researcher provided participants with a see-through phone holder to wear around the neck in order to ease this process. Participants were free to record as much or little footage or imagery as they wished. Follow-up semi-structured interviews, lasting between 20-40 minutes, were used to gain a deeper understanding of captured material in relation to this, using participant-created video and imagery to guide discussions. They were conducted at a hired room in the Loughborough Design School building and were recorded using field notes.

#### **4.4.1 Results and Next Steps**

Over the seven-day period, 193 images were created from the photo elicitation method with an average of 38.6 per person. The largest number of images created by one participant was 108 and the least was five. Emerging themes included: security, control, comfort and personalisation. Themes began to overlap after approximately 10 images had been explored overall and, in some cases, it was not possible to properly discuss all photographs during the allocated interview time (40 minutes) due the large quantity created by some participants. Nonetheless, the photo elicitation exercise indicated interesting findings around home needs. Participants remarked during each interview that the task of taking photos in the home was easy and quick to undertake, and that it motivated reflection on emotional home triggers. For example, all participants reported that personalisation was important so that they could truly feel 'at home' in their environment. It thus enabled discussion of certain home related concepts during interview, such as the necessity to feel at home and the importance of display objects (i.e. artwork, ornaments) to create the right atmosphere. Following these conversations, it was clear that homeowners exercised more freedom and time in creating personalised environments. For example, homeowner images of household environments included larger scale and more permanent alterations (see large painting on bottom left-hand side of Figure 4.1) when compared to those renting, which included short-term, easily changeable ornamentations, such as the display of postcards and used of colourful drapes (see other images in Figure 4.1).

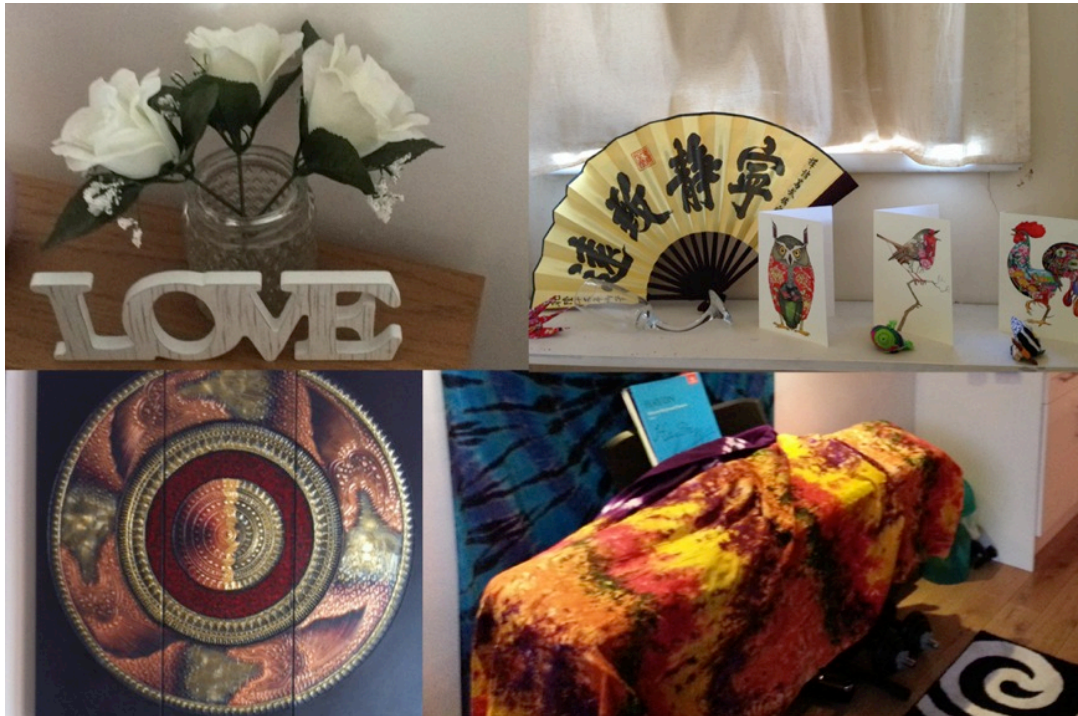


Figure 4.1 – A Sample of Images Captured by Participants Using the Photo Elicitation Method During Preliminary Study

However, the photo elicitation method did not sufficiently aid discussion of daily routines and habits. The images (see Figure 4.1) were taken at varying times and on different days so it was therefore difficult to situate them within the context of home routines. For example, Figure 4.1 shows that many of the photos captured by participants were of decorative or memorial artefacts, such as installing a large painting on one's wall (lower left-hand side image) or hanging tie dye drapes on the wall and over one's instrument (lower right-hand side image). According to interview responses, these ornamentations often remained static and on display to create the 'feeling' of home. Consequently, the 'business' of home (Crabtree and Rodden, 2004) was conducted outside the shot of the camera.

Footage captured using the video elicitation method included participants preparing breakfast, closing windows and putting shoes on. 17 video clips were recorded in total, combining to a total of 19 minutes, 40 seconds of film. The longest clip was 4 minutes, 40 seconds. The shortest clip was 11 seconds and average video length was 1 minute 15 seconds. This elicitation activity had similar problems in situating the content as it wasn't specified to participants when and what they should film. They were only asked to video domestic routines at random and this did not appear to give them sufficient direction. The process of

filming also appeared to directly interfere with the activity the participant was undertaking—for example, they held a smartphone in one hand while attempting to carry out tasks with the other. Although the researcher provided participants with a see-through phone holder to wear around the neck when performing tasks, the preparation involved in using this (i.e. adjusting the view of the phone so that camera was on and facing the right direction when the phone holder was worn) was off putting for individuals, so neither used it. The method therefore seemed to actively disrupt participants' interactions with their home, reducing its ability to give honest representations. Consequently, the recorded footage appeared ambiguous to the researcher, which made it difficult to structure relevant interview questions to elicit daily routines and habits. This made interview discussions difficult and restricted to questions of 'what is going on?' as opposed to 'how does your home make you feel when you...?' It therefore proved an ineffective method for fostering conversation around home routines and happiness necessary to answering the second objective (see Section 4.4).

After evaluating results from testing both methods, photo elicitation was deemed the most appropriate to meet the second objective (see Section 4.4) as it was quick, easy and enjoyable for participants to use, causing minimal disruption to their daily routines and appeared to yield the largest amount of valuable data (i.e. provisional needs for home happiness). This testing also made evident improvements to this method that could increase the insightfulness of its results, such as reducing the image capturing days from seven to two days, one working and one non-working to record the two most average days people experience at home. Home has been described by previous literature as being 'an interplay between house and the world, the intimate and the global, the material and the symbolic' (Long, 2013, p. 335) and these two common home routines (i.e. leaving for work and returning for leisure time during the week and staying for leisure time at the weekend) were selected to capture the two extremes of this, providing a more holistic picture of home practices. Also, instructing participants to capture images of their domestic routine instead of emotional triggers could provide a more accurate depiction of home happiness triggers by following Self-determination Theory logic (see Section 3.2); participants would naturally attempt happiness enhancing activities, observable through their daily routines. These modifications were therefore made to the original instructions to maximise the quality of its output in Study 1, discussed in the following sections.

## 4.5 Study I

Over the course of the study, participants gave evidence of their domestic routines, using representative photography of days at home and relevant actions. A small selection of images captured can be viewed in Figure 4.2.



Figure 4.2 – A Small Selection of Images Captured by Participants Using the Photo Elicitation Method During Study I

Participants were obtained by using email advertisements that were circulated to all members of staff at Loughborough University and their personal contacts. For Study 1, Photo elicitation was used as combined interview and creative method in which participants *created* and submitted photography through email portraying their home routines for one working and one non-working day. They were subsequently interviewed approximately a week later using face to face semi-structured interviews. The interviews took place at a hired room in Loughborough Design School.

Prior to the study, its specific aims were not discussed with participants to reduce any a priori and/or external influence, but they were emailed a participant information (i.e. outlining overall objects) and given a consent forms to read and sign (see Appendix X). Participants were also afforded freedom to take as many or as few images as they desired. Main semi-structured interview questions were generated from literature review findings on concepts of home, such as home is a reflection/extension of the self (De Botton, 2006; Cristoforetti, Gennai and Rodeschini, 2011), and were framed to elicit home-making practices that contributed to or depleted personal happiness (see Appendix B for example of questions).



Analytical memos were also created from generated imagery to help frame specific interview questions for each individual prior to each session. Field notes were used to capture interesting responses and/or body language during semi-structured interviews, and investigator reflections. Semi-structured interviews were kept to 1 hour to avoid exhausting participants from emerging conversations. Captured imagery acted as prompts for discussion during interviews and participants mostly led explanations of imagery, but further questions were asked if elements of interest (i.e. what were you thinking?) had not been covered. Transcriptions of interview conversations were also made using audio recordings for later analysis stages (see Appendix E for extract examples). Images were stored electronically on a password protected desktop computer at Loughborough University.

#### **4.5.1 Results and Findings**

Participants captured a total of 390 images during the study. An average of 30 images was recorded per individual. Least amount captured was 12 and largest per person was 58. The results suggest that using photo elicitation as a creative method successfully engaged participants emotionally, encouraging reflection on home habits; the created imagery elicited emotional explanations from participants (i.e. enthusiastic and detailed recalls of home events) and allowed them to give accurate and comprehensive accounts of their home practices—evidence to follow in subsequent paragraphs. This led to the discovery of various home happiness activities and needs, and opportunities for ‘designing for home happiness’. These findings and their implications for the next stage of data collection are discussed in detail in the following sections.

##### **4.5.1.1 Effective Use of Photo Elicitation as a Creative Method**

The results suggest that the creative element of photo elicitation engaged participants successfully in the activity. Participants appeared to emotionally connect to their normally unconsidered home routines by creating visual narratives using photography; during interview as they gave insightful responses about conditions for home happiness, including tidiness preferences (additional qualities are discussed in subsequent sections):

“Lots of my pictures seem to be about mess... am I obsessed with that? Is that such a big part of my life because I’m taking pictures of it?” (Participant H10A2)

As evidenced by findings of the Preliminary Study employing photo elicitation, this method appeared to provide materials (i.e. photos) that served as memory aids, which facilitated discussions around relevant themes during interviews. Additionally, asking participants to capture images that illustrated domestic routines enabled conversations around different activities' significance to home happiness—such as those most commonly spoken about with the greatest degree of enthusiasm (i.e. discussed at length, sometimes with dramatic bodily gestures). Moreover, giving participants ownership of the type of images they wanted to capture to tell a story—such as using photo elicitation as a creative method—seemed to cause participants to become more aware of how they wanted home to be represented, bringing to light home's ability to reflect one's values and its importance in this (explored in greater detail in subsequent sections):

“I didn't take any pictures of messiness in the house...I'm selective about what I am showing... Some of the photos [where] I'm helping my boys to do revision. It's the image of a good dad” (Participant H8A1).

This holds with the notion of image making's ability to activate corresponding emotional regions in the brain (Lusebrink and Alto, 2004). For example, capturing imagery (i.e. thinking and deciding about and composing images that were representative and important illustrators of home life) of one's morning routine appeared to activate emotions associated with it upon its narration at follow-up interview, such as a need for personal time/space. Taking previous research into account, presumably the act of composing, taking and then discussing photos of representative images of this caused participants to relive and experience associative feelings more strongly, better enabling them to explain them at interview stage. Correspondingly, images generated tended to illustrate the most significant aspects of the participants' home life—what they valued most. See Figure 4.3 and comment below it for example.

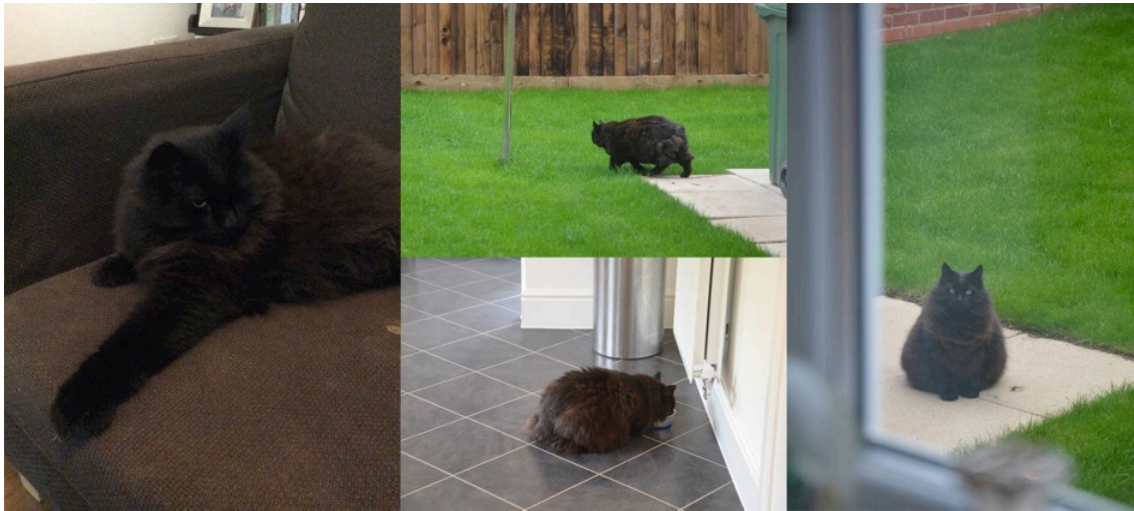


Figure 4.3 – Examples of Images Captured by Participant H6A1 During Study I

“I think you need a cat in the house... for me if you have a pet they become part of your life...” (Participant H6A1)

This sensitisation allowed for more honest discussions at the interview stage, which included both negative and positive aspects of home life. This was identified, in order of priority, from (1) participant’s open commentary of situations or areas:

“...with the kids, it would be chaos if we tried to sit in there” (Participant H1A1)

or (2) their following reflections:

“...we’re working towards me getting my life back, so I’m doing quite a lot of drawing and painting” (Participant H1A1)

and (3) what featured most frequently in the images—family members and pets for example. Notably, main findings came from participants recollections of household events, as opposed to the images themselves. Individuals, having been sensitised to the significance of their daily routines through composing related photography were seen to offer more accurate interpretations of home happiness rather than examining exact contents of imagery. For example, a participant could begin by discussing an image of their workspace but then finish with reflections of other areas in the house, not visible in the image—such as how they were not appropriate for work-based activities. In this way, images were often gateways to alternative conversations around qualities significant for home happiness. Associated themes are investigated in detail in the following sections.

#### 4.5.1.2 Triggers of Negative and Positive Emotions in the Home

Negative responses and reactions consistently occurred around household chores or areas where values of household members clashed, such as different views on how things should be done or presented in the space (see Figure 4.4).



Figure 4.4 – A Sample of Images Captured by Participants Around Negative Topics, such as Household Chores and Conflicting Ideals During Study 1

In this, 8 out of 13 participants talked about personal preference clashes while all included household tasks when describing home activities they disliked. Of those households that discussed areas of conflict, all were often quick to reflect that these resulted from different perspectives and were not created in malice. Remarks depicting dissatisfaction with another’s living arrangements were quickly followed up with reflective consideration:

“I don’t really ever go into my husband’s study... there’s piles and bits of paper in that room. I don’t know what all those piles are and what they represent... It’s not that he’s an untidy person. In the rest of the house he is incredibly tidy” (Participant H6A1)

The negative feedback was quickly deflated through a shown understanding and acceptance of the other individuals’ preferences:

“I couldn’t live in the room but I can live with the idea that he [son] can live in the room” (Participant H3A2).

Regardless of any genuine irritation expressed by participants when describing others’ household habits or spaces, it was clear that strong social relationships allowed them to accept

differences in each other's personalities and to remain understanding during these instances. This revealed important qualities for establishing and maintaining happy homes in communal living situations, such as compromise, understanding and acceptance, that appeared to grow from time spent together—participants frequently shared additional stories about previous positive experiences with household members when describing imagery. Consequently, happier homes could be encouraged through frequent communication and social engagement with others.

In terms of unpleasant tasks, 10 out of 13 participants described various household chores (i.e. DIY, laundry, hoovering) as work that disrupted leisure time by either being time consuming or unrewarding while the remaining others indicated that it caused negative emotions (i.e. guilt, stress) through knowing it needing completion:

“I get stressed... sometimes... around the house, not enough jobs done” (Participant H4A1)

“I don't like how [housework] intrudes on your home” (Participant H6A1)

In this manner, household tasks, if interpreted as necessary and reducing leisure time without overt rewards—such as pleasant experiences with family—or help could interfere with home happiness. The acknowledgement of later relaxation could minimise their unpleasantness while their completion could add to the enjoyment of subsequent rest periods:

“The busier it's been, the greater the calm” (Participant H5A1)

This came up in discussions with seven of 13 participants interviewed. Specifically experiences of work where *goals were achieved* could lead to instances of relief and happiness in later wind down periods:

“What I really look forward to at the end of the day is the dishwasher is on, the kitchen is all sorted, [son]'s asleep and the cats asleep next to me” (Participant H6A1)

Although all participants exhibited generally displeasure towards various house related duties (i.e. loading and unloading the dishwasher), this suggested that some home unhappiness, through completing of unwanted necessary tasks, could facilitate happiness at other times. Collectively, discussing negative themes provided an additional way of investigating home

happiness. It allowed for deeper assessments of what created home happiness, including the importance of family time, relaxation time, reward when completing tedious tasks, and acknowledging different personal preferences when defusing potential arguments.

Having said this, most imagery generated was positive in nature and often depicting family members, pets, rest periods and hobbies (see Figure 4.5).



Figure 4.5 – A Small Selection of Images Captured by Participants Around Positive Themes During Study 1

Discussions with participants around these topics revealed that positive periods were often supported and/or strengthened by others in the household through acts of cooperation, kindness or their presence. There was clear evidence of teamwork in all households in which tasks were evenly distributed:

“Evening meal is the time for us to get together. Somebody does the table; somebody makes the salad; somebody cooks at the cooker; somebody empties the bins” (Participant H2A1)

“I’ll have two hours on my own with the baby... Then after two hours I hand her over to my wife and I do something else” (Participant H4A1)

Accordingly, cooperative arrangements where work was divided fairly appeared to support the household’s happiness. Seven out of 13 participants discussed instances where both parents performed home tasks at the same time, often preceded by a period of relaxation in each other’s company, sometimes in front of the television, other times engaged in different docile activities such as reading:

“...when the kids are in bed we like to spend at least half an hour just sat in front of the TV together” (Participant H2A1)

“One of us will have ordered the pizza to arrive just as the other one was coming down the stairs and then either we’ll watch a film together or he’ll play on his console and I’ll read a book” (Participant H7A1)

Synchronised periods of work therefore encouraged shared rest, strengthened by common interests, which motivated positive home experiences. Overall, these supportive relationships evidently facilitated healthy routines of work and leisure, which appeared to contribute to overall home happiness.

#### **4.5.1.3 Relational Messages in the Home**

The imagery greatly aided discussions of sometimes sensitive home subjects. It enabled a relaxed atmosphere for conversation around home happiness by diverting attention from the participant and provided common ground between the interviewer and interviewee. These discussions evidently brought to light relational messages in the home. Feelings felt by a household member based on another member’s actions could be relational messages. For example, Participant H3A1 recalled being irritated when he saw a large pile of belongings scattered over his child’s bedroom floor (see Figure 4.6) leading him think:

“Don’t you care about stuff enough to tidy it up?” (Participant H3A1)





*Figure 4.6 –Two Images Captured of Participant H3A1’s Child’s Untidy Room that Resulted in a Negative Relational Message During Study 1*

Negative relational messages could disturb home happiness as they conveyed conflicting attitudes among household members, such as thoughtlessness. However, few negative relational messages were communicated in the data and positive relational messages were far more common. These included family members preparing things for each other, such as cups of tea (see Figure 4.7) or a bath (see Figure 4.8).





Figure 4.7 – An Image of Two Cups of Tea on H2’s Kitchen Counter Top Provided by Participant H2A1 in Preparation for the Parents’ Tea Break Captured During Study 1



Figure 4.8 – An Image of Bath with Hot Water and Bubbles Prepared for Participant H10A2 by Her Children Captured During Study 1

Accordingly, positive relational messages illustrating *acts of kindness* could also strengthen social relationships by making family members feel cared for, supporting pleasant home experiences. Various home artefacts on display evidently evoked additional positive relational messages. These appeared to serve as signifiers of previous positive moments with others,

such as family holidays, thoughtful gifts or generous actions. For instance, Participant H3A1 talked about how his partner's jewellery tree was a positive encapsulation of the whole family. On this jewellery tree were gifts that he had previously bought his wife to say thanks for various reasons. Additionally, the children chose the jewellery tree while the family were on holiday. It hence elicited positive relational messages by triggering memories of happy family moments and kindness (see Figure 4.9)



*Figure 4.9 – An Image of a Jewellery Tree Belonging to Participant H3A1's Partner that Triggered Positive Relational Messages for Him, Captured During Study 1*

Home artefacts could therefore play an additional role outside of function and adornment by strengthening positive family associations and relationships, which continued to feature as an important part of a happy home. These included family photographs and hand-crafted objects (see Figure 4.10):



Figure 4.10 – Two Images of Egg-Cress-People made By Mother and Son Captured During Study 1 – one was taken by Participant H6A1 (left-hand side), the other by Participant H6A2 (right-hand side)

When participants were asked ‘what makes home feel like home?’, responses also emphasised the importance of family imagery and personal artefacts in facilitating home happiness:

“We’ve got pictures, many pictures on the wall because that is what makes it... It has lots of stuff that the kids have made and I’ve made, stuff that means something to us” (Participant H1A1)

“Having pictures around and... pictures of family and ornaments make it feel like home” (Participants H2A1)

Results suggested that imagery and artefacts in the home could also be used to *reflect values*, such as positive family experiences, and create *comfort*, through pleasant imagery for example, for home happiness. Collectively, these results indicated that home happiness could be supported by designed objects and/or systems that evoked these qualities or facilitated positive relational messages through the creation and display of relevant artefacts.

#### 4.5.1.4 Happiness Needs and Motivations in the Home

Through the collective analysis of resulting negative and positive themes from verbal and visual data, it was possible to identify activities and situations associated with home happiness. Figure 4.11 displays an overview of how often the most prominent home happiness triggers occurred in the data.

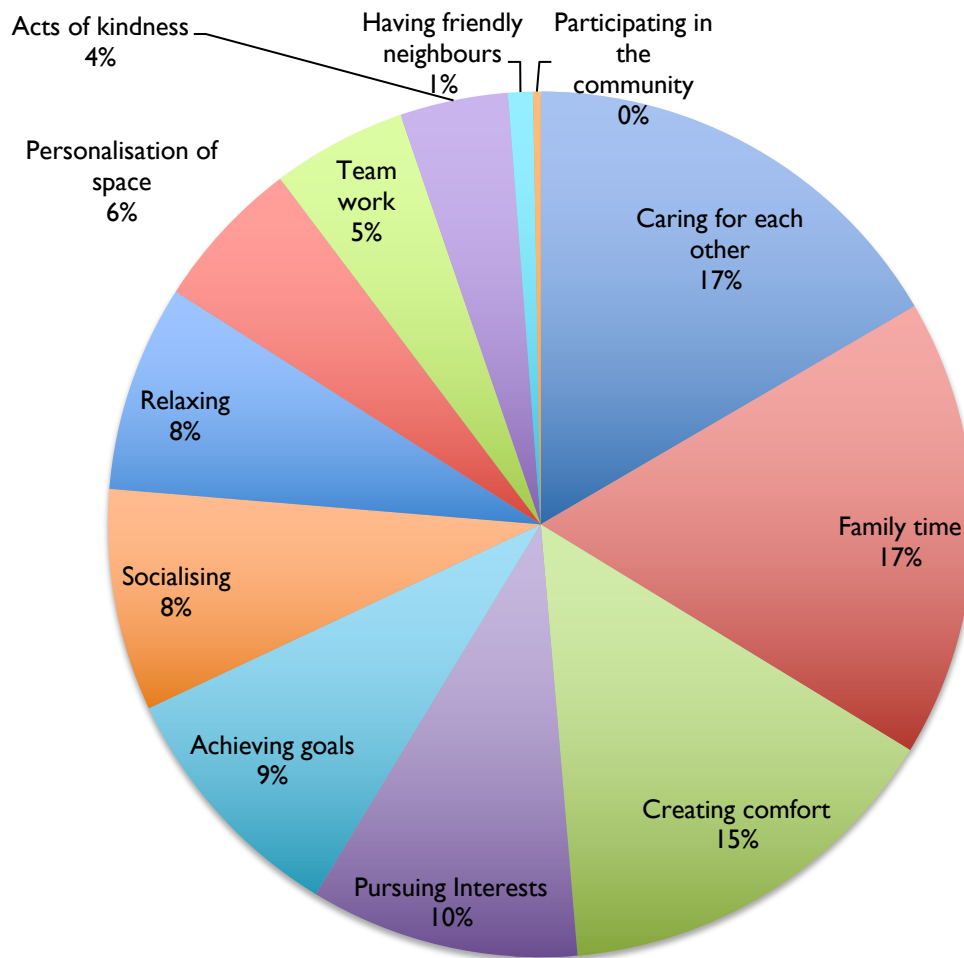


Figure 4.11 – Pie Chart Detailing the Frequency of Each Code for Home Happiness Activities Occurred in Study 1 Data

In accordance with Self-determination Theory (see Section 3.2), participants were assumed to seek out activities conducive to their happiness within the affordances of their home life. Notably, some individuals may spend significant time completing household chores due to lack of resources for additional help as opposed to finding pleasure from these activities. In this case, the frequency of various home actions in the data did indicate the most important home happiness requirements for individuals—participants talked at length about activities/aspects they enjoyed and discussed negative elements sparingly or with obvious disdain, which was recorded in the field notes. To begin this process, emerging codes, such as activities or inferred activities from happiness enhancing scenarios (i.e. having friendly neighbours leads to socialising with one’s neighbours and, feelings of belonging and security) were initially divided into themes of *self care* (e.g. relaxing and exercising), *family care* (e.g.

compromising and spending time with each other), *community care* (e.g. knowing and socialising with neighbours) and *home care* (e.g. personalising and creating comfort) in order to analyse how these behaviours were assisting home happiness. Links to the characteristics of happy sustainable societies could then also be drawn using Escobar-Tello’s (2010) a priori codes to locate which home happiness behaviours were as sustainable (see Table 4.4).

Table 4.4 – A Sample of Codes (Activities) and Themes Related to Happiness in the Home (blue section of table) and Links to Happy Sustainable Society Characteristics Using Escobar-Tello’s (2010) A Priori Codes (pink section of table) Drawn During Study I

| Activities for Home Life Happiness  | A Priori Codes for Happy Sustainable Societies (Escobar-Tello, 2010)   |
|---|--|
| <b>Community Care</b><br>Knowing & socialising with neighbours<br>Participating in local area i.e. clubs, volunteering  | Sust-comm, happ-connect, sust-inter<br>Sust-comm, sust-inter, sust-pro-act   |
| <b>Self Care</b><br>Relaxing<br>Exercising<br>Extraversion/socialising<br>Performing acts of kindness<br>Achieving one’s goals  | Happ-self, sust-slow<br>Happ-active, sust-holistic<br>Happ-connect, sust-inter<br>Happ-give, happ-self<br>Happ-goals, happ-self  |
| <b>Family Care</b><br>Listening/talking to each other<br>Spending time with each other<br>Compromising<br>Showing acceptance<br>Cooking/preparing food for each other<br>Sharing spaces & resources | Happ-self, happ-connect<br>Happ-connect, sust-inter<br>Happ-give, sust-virt<br>Happ-give, sust-virt<br>Happ-give, happ-self, sust-sha-PS<br>Sust-virt, sust-sha-PS, sust-needs |
| <b>Home Care</b><br>Personalisation<br>Creating physical comfort  | Happ-self, sust-slow<br>Sust-needs, sust-slow  |

As previously discussed in Section 2.4.1, ‘Design for Happiness’ interventions display promise for creating happy and sustainable home designs through deployment of the DfH. However, the characteristics of happy and sustainable societies that guide this framework are yet to be situated in the home. Employing Escobar-Tello’s a priori codes, being based on these characteristics, therefore facilitated this process. Furthermore, all reported home happiness activities from this sample appeared to relate in some way to the characteristics of happy and sustainable societies, some being more obvious than others. For example, relaxing (under self care) could be connected to having self-esteem (happ-self) and slowing down



(sust-slow), and spending time with each other (under family care) could relate to connecting (happ-connect) and interacting with people (sust-inter). Further analysis of these activities, as they occurred in the data, revealed underlying needs for home happiness (see Table 4.5).

Table 4.5 – A Sample of Codes (Activities) Related to Happiness in the Home (blue section of table) and Hypothesised Implied Needs (New Themes) for Each (yellow section of table) Identified During Study I

| Activities for Home Life Happiness  | Needs for Home Life Happiness  |
|---|--|
| <i>Community Care</i><br>Knowing & socialising with neighbours<br>Participating in local area i.e. clubs, volunteering  | Companionship, security, consistency<br>Companionship, reflection of values  |
| <i>Self Care</i><br>Relaxing<br>Exercising<br>Extraversion/socialising<br>Performing acts of kindness<br>Achieving one's goals  | Self-love, comfort, consistency, security<br>Self-Love, freedom<br>Self-love, companionship, freedom<br>Self-love, reciprocal-love<br>Self-love, freedom, control, consistency                           |
| <i>Family Care</i><br>Listening/talking to each other<br>Spending time with each other<br>Compromising<br>Showing acceptance<br>Cooking/preparing food for each other<br>Sharing spaces & resources | Reciprocal-love, companionship<br>Reciprocal-love, companionship<br>Reciprocal-love, companionship<br>Reciprocal-love, companionship<br>Reciprocal-love, companionship<br>Reciprocal-love, companionship |
| <i>Home Care</i><br>Personalisation<br>Creating physical comfort  | Reflection of values, freedom, control<br>Comfort, privacy, control, freedom   |

For example, in these instances the drive to relax (under *self care*) appeared to come from the need for *self-love*, but also *comfort*, *security* and *consistency* as these needs collectively necessitated relaxation in the home. Furthermore, personalisation (under *home care*) illustrated a need to *reflect values* and this was enabled by the participant having some *control* and *freedom* in the home. Similarly, the desire to spend time with family (under *family care*) seemed to be generated by the need for *reciprocal love* and *companionship*. This led to the conceptualisation of ten needs for home happiness. Following this, home happiness activities were grouped with their corresponding need. The importance of each need could then be determined by counting the number of instances its related action occurred in the data. Accordingly, a tentative ranking system for home happiness needs and their corresponding activities resulted from this (see Table 4.6).

Table 4.6 – An Example of the Ten Needs, in Order of Importance that Emerged from Study 1 Data and Their Most Common Corresponding Activities—located in the same colour adjacent sections of the table, also in order of importance

| Needs (in order of importance)                      | Corresponding Activities (in order of importance)  |
|---|--|
| 1. Self-Love  | <ol style="list-style-type: none"> <li>1. Pursuing interests</li> <li>2. Extraversion/socialising</li> <li>3. Achieving goals</li> <li>4. Relaxing/resting</li> <li>5. Exercise</li> <li>6. Eating well</li> <li>7. Acts of kindness</li> <li>8. Personal hygiene</li> <li>9. Adequate sleep</li> <li>10. Self expression</li> </ol>   |
| 2. Reciprocal Love                                  | <ol style="list-style-type: none"> <li>1. Family time together</li> <li>2. Satisfying basic needs for each other (i.e. cooking, cleaning)</li> <li>3. Working as a team</li> <li>4. Acts of kindness</li> <li>5. Listening, talking, laughing with each other</li> <li>6. Creating personal space for each other (i.e. giving each other privacy)</li> <li>7. Compromising</li> <li>8. Physical affection</li> <li>9. Showing appreciation</li> <li>10. Sharing spaces and resources</li> <li>11. Teaching/learning from each other</li> </ol> |
| 3. Companionship                                    | <ol style="list-style-type: none"> <li>1. Family time together</li> <li>2. Extraversion/socialising</li> <li>3. Knowing and socialising with neighbours</li> <li>4. Participating in local area i.e. clubs, volunteering</li> </ol>  |
| 4. Comfort (ability to mentally & physically relax) | <ol style="list-style-type: none"> <li>1. Creating physical comfort (i.e. temperature, noise, lighting, smell, soft furnishings, balance between messy and tidy)</li> <li>2. Relaxing/resting</li> </ol>   |
| 5. Reflection of Values                             | <ol style="list-style-type: none"> <li>1. Maintaining desired appearance of space (i.e. cleaning/tidying, redecorating, repairing)</li> <li>2. Personalising the space to one's aesthetical preference</li> </ol>  |
| 6. Consistency (allows for...)                      | <ol style="list-style-type: none"> <li>1. Spending time together</li> <li>2. Achieving goals</li> <li>3. Relaxing/resting</li> <li>4. Exercise</li> <li>5. Eating well</li> </ol>  |
| 7. Freedom (allows for...)                          | <ol style="list-style-type: none"> <li>1. Pursuing interests</li> <li>2. Achieving goals</li> <li>3. Personalising the space to one's aesthetical preference</li> <li>4. Tailoring space to one's personal tasks</li> </ol>  |
| 8. Privacy  | <ol style="list-style-type: none"> <li>1. Creating personal space for each other (i.e. giving each other privacy)</li> </ol>   |
| 9. Control (allows for...)                          | <ol style="list-style-type: none"> <li>1. Achieving goals</li> <li>2. Personalising the space to one's aesthetical preference</li> <li>3. Tailoring space to one's personal tasks</li> </ol>   |
| 10. Security  | <ol style="list-style-type: none"> <li>1. (Allows for) relaxing/resting</li> <li>2. Knowing and socialising with neighbours</li> </ol>   |

Results indicated that love, firstly *self-love* and secondly *reciprocal love*, overwhelmingly dominated motivation for home activities, as indicated in Table 4.6. Satisfying the need for

self and reciprocal love therefore determined the most important activities for home happiness for individuals of this study. The difference between occurrences for activities for *self-love* and *reciprocal love* was relatively small. Furthermore, there was some cross over between actions for both needs. For example, certain activities under *self-love*, such as socialising could overlap with behaviours for *reciprocal love*, family time together for example. Additionally, working as a team (under reciprocal love) could relate to achieving goals (under self-love). The need for *self-love* was illustrated in other ways; participants openly discussed the importance of personal leisure time, such as pursuing interests (e.g. art making, running) (see Figure 4.12) and socialising outside the home (e.g. joining a cycling group).



Figure 4.12 – Two Sample Images Portraying Activities of Self-Love, such as Art Making and Exercising, Captured During Study I

Taking the time to look after oneself, both emotionally and physically, appeared to be the most important factor that contributed to home happiness in these instances. Personal activities were directly given a time allowance, and/or intentions to do this more often in the future were also expressed after current responsibilities had diminished:

“I’m not spending my time thinking of the family all the time. I am thinking of myself as well and doing my own thing. I think that is important” (Participant H3A2)



“I go to figure drawing class. That’s a big chunk of time that I get to myself and that’s really nice” (Participant H1A1)

Furthermore, home was consistently reported as a place that should facilitate *self-love* activities where one could relax, personalise, rest and achieve both functional and aspirational goals:

“To me, it’s a space to relax, to call your own. You decide how it is” (Participant H2A1)

“It needs to feel yours” (Participant H3A2)

Moreover, many home actions described were orientated around *self care* such as personal hygiene, adornment (i.e. “I get my make-up ready”) and the preparation of comforting food (i.e. “homemade pie”) and drink (i.e. “posh coffee”) for oneself. Consequently, home happiness could be supported through a home that affords *self care* activities. This further confirmed home as a direct facilitator of happiness in the right circumstances. The full list of activities occurring under the theme of *self-love*, in order of frequency can be seen in Table 4.7.

Table 4.7– List of Activities that Occurred Under the Need for Self-Love During Study I

| Needs (in order of importance) | Corresponding Activities (in order of importance)  |
|--------------------------------|--|
| 1. Self-Love                   | 1. Pursuing interests<br>2. Extraversion/socialising<br>3. Achieving goals<br>4. Relaxing/resting<br>5. Exercise<br>6. Eating well<br>7. Acts of kindness<br>8. Personal hygiene<br>9. Adequate sleep<br>10. Self expression |

The need for *reciprocal love* was made evident from the extended periods participants reported spending with family and satisfying basic needs for each other such as cooking. Expressions of love towards others in the home could therefore facilitate positive home experiences, greater time spent together and encourage future pleasant exchanges through the building of strong social relationships. Exemplary responses included:

“We’re together a lot. We don’t have to talk all the time but we’re together a lot”  
(Participant H4A1)

“I quite like cooking so I find it quite relaxing to do something like that... I don't see it as a chore” (Participant H3A1)

This was also made evident when participants communicated their dismay when family was not at home:

“I’m happy to be here when the family are here. It’s only when I’m by myself that I organise other activities” (Participant H3A2)

“My wife rarely goes away. When she does... the house is really empty... I don't like it”  
(Participant H4A1)

Additionally, the need for *reciprocal love* in establishing happy experiences was also made clear by the cooperative behaviours family members exhibited towards each other, previously discussed (see Section 4.5.1.2, pp. 116–117) and their overt statements of *needing* family in the home when directly asked for important qualities:

“Just warmth and family... that’s it” (Participant H1A1)

“Having space for your family” (Participant H6A2)

It was apparent that just being in each other’s company was sometimes sufficient in promoting positive feelings as strong relationships had been built from historically caring engagements, such as preparing food for one another. Evidently, *reciprocal love* activities created the right social context for positive family experiences as well as future pleasant moments with others. The full list of actions, grouped under this theme and in order of occurrence can be seen in Table 4.8.

Table 4.8– The Complete List of Activities that Occurred Under the Need for Reciprocal Love During Study I

| Need               | Corresponding Activities (in order of occurrence)  |
|--------------------|--|
| 2. Reciprocal Love | <ol style="list-style-type: none"> <li>1. Family time together</li> <li>2. Satisfying basic needs for each other (i.e. cooking, cleaning)</li> <li>3. Working as a team</li> <li>4. Acts of kindness</li> <li>5. Listening, talking, laughing with each other</li> <li>6. Creating personal space for each other (i.e. giving each other privacy)</li> <li>7. Compromising</li> <li>8. Physical affection</li> <li>9. Showing appreciation</li> <li>10. Sharing spaces and resources</li> <li>11. Teaching/learning from each other</li> </ol> |

Given the strong desire to spend time with or be around family, the need for *companionship* was also often stressed as predominant need for home happiness. The atmosphere of what made home *feel* like home was diminished if loved ones were away, described as “really empty” and missing familiar sounds. Additionally, when asked what made home *feel* like home some of the responses included the following:

“My kids and my husband” (Participant H1A1)

“People and family members. It's not the physical space” (Participant H8A1)

“Just having the family around and all the noise” (Participant H9A1)

The complete list of activities appearing in the responses relating to the need for companionship, in order of frequency, can be viewed in Table 4.9.

Table 4.9 – The Complete List of Activities that Occurred Under the Need for Companionship During Study I

| Need             | Corresponding Activities (in order of occurrence)   |
|------------------|---|
| 3. Companionship | <ol style="list-style-type: none"> <li>1. Family time together</li> <li>2. Extraversion/socialising</li> <li>3. Knowing and socialising with neighbours</li> <li>4. Participating in local area i.e. clubs, volunteering</li> </ol> |

Noticeably, *companionship* activities could be strengthened by those for *reciprocal love*; for example, acts of kindness could encourage time together. Additionally, engagements involving socialising for *companionship* also appeared to overlap with actions for the *self-love* (i.e. socialising for emotional self-care) and *reciprocal love* need, particularly when concerning

time with family and/or close friends either pursuing interests, relaxing, talking, playing and/or eating—these actions could collectively support needs for *self-love*, *reciprocal love* and *companionship*. Evidently, specific home interactions could satisfy many home happiness needs concurrently, equating to enhanced levels of home happiness.

*Comfort*, also played a role in maintaining a happy home. Noted as a multidimensional and complex concept (Burriss, 2014), its full exploration is beyond this research’s aim. A summative definition of *comfort* is therefore employed, such as creating a physically and mentally relaxing atmosphere, illustrative of its specific occurrences and connotations in this data. *Comfort* was emphasised in all homes in different ways, including through stated importance of soft furnishings, right levels of and/or familiar noise, messiness, lighting and heating. For example, “warmth” and “laughter” were mentioned as home necessities. Furthermore, “nice rugs and cushions” could be used to “make a nice home” and “that little messiness of home” was important in creating “comfort” in the space. Participants would routinely move to warmer or brighter areas of the home to suite their *comfort* needs, using the space differently in accordance with seasonal changes:

“We’ve since moved a sofa into the dining room which overlooks the garden and that’s our summer setup...we have a summer and winter setup” (Participant H7A1)

“In the back lounge, we have a lovely log burner. In the winter, we all tend to congregate in the back lounge and it's a gorgeously warm room” (Participant H10A1)

Activities associated with creating comfort can be viewed in Table 4.10 below.

Table 4.10 – List of Activities that Occurred Under the Need for Comfort During Study I

| Needs (in order of importance)                      | Corresponding Activities (in order of importance)  |
|---|--|
| 4. Comfort (ability to mentally & physically relax) | <ol style="list-style-type: none"> <li>1. Creating physical comfort (i.e. temperature, noise, lighting, smell, soft furnishings, balance between messy and tidy)</li> <li>2. Relaxing/resting</li> </ol> |

*Comfort*, in these instances appeared to be two dimensional; it had physical and mental features that were interconnected. It could be divided further into *mental* and *physical comfort*, those of which could be considered separately in other situations—such as the *physical comfort* of home furnishings or *mental comfort* from family members’ presence in the home. Although

listed activities under the *comfort* need are most closely related to *physical comfort*—as these were the most prominent and directly comfort associated activities in the data—elements for *mental comfort* could be seen to cross-over into activities listed under *self-love*, *reciprocal love* and *companionship*. Actions for *mental comfort* were implied in those for *self-love*, *reciprocal love* and *companionship*, such as relaxing and socialising with family, and taking care of oneself. Additionally, some activities for these needs were also conducive to *physical comfort*—satisfying basic needs for each other (i.e. cooking) under *reciprocal love* for example. Consequently, engagements for *self-love*, *reciprocal love* and *companionship* could also support *comfort*.

Furthermore, the personalisation of homes to *reflect values* of their owners also appeared to play a role in facilitating experienced happiness in home spaces. This was made apparent through recollections of home improvements that were seen to give the home greater “purpose and meaning” by emulating the preferences and/hard work of its inhabitants:

“We’ve done a lot of work to make it our own, so we’ve stamped our mark on it”  
(Participant H10A2)

“We have our own spaces that are defined by us and we have collective spaces that we have decided upon together” (Participant H2A1)

Moreover, a lack of personalisation could make some feel uncomfortable in different home spaces, creating less positive experiences:

“It’s a room that I don't feel is my space” (Participant H6A1)

“We’ve got a study and I don’t like being in it... it’s the room that we’ve done the least to” (Participant H7A1)

Other examples of this can be read under the previously discussed triggers of negative and positive emotions in the home (Section 4.5.1.2). Please see Table 4.11 for activities associated with the need to *reflect values* in the home.

Table 4.11 – A List of Activities that Occurred Under the Need to Reflect Values in the Home During Study I

| Need                    | Corresponding Activities (in order of occurrence)   |
|-------------------------|---|
| 5. Reflection of Values | <ol style="list-style-type: none"> <li>1. Maintaining desired appearance of space (i.e. cleaning/tidying, redecorating, repairing)</li> <li>2. Personalising the space to one's aesthetic preference</li> </ol> |

Furthermore, fulfilling the need to *reflect values* could also assist in creating *physical* and *mental comfort*. Practices of personalisation could create aesthetically pleasing environments, representative of one's decorative and functional preferences, including types and placement of furnishings (*physical comfort*) and values, such as artefact displays that denoted special times or exchanges with others (*mental comfort*) (see Section 4.5.1.3). Less obvious activities for *reflecting values* could also be seen in positive engagements with family members through acts of kindness, pursuing interests and talking with each other, which collectively fulfilled needs for *self-love*, *reciprocal love*, *companionship* and *comfort*, as previously discussed. It began to become more apparent that positive family experiences had the potential to satisfy multiple needs for home happiness simultaneously.

Additionally, the need for *consistency* became evident through discussions of what allowed participants to achieve previously discussed needs (i.e. *self-love*, *comfort*) through, for example, relaxation and pursuing enjoyable endeavours in their homes. When asked what made home feel like home, many responded with “having the family around” and “laughter”. Predictable routines of home, such as familiar noises and patterns of pets provided a restful and productive environment, allowing actions connected with *self-love*, *reciprocal love*, *companionship*, *comfort*, *reflection of values* to be fulfilled:

“Familiarity allows you to always feel comfortable in the living room or in the study everyday... the patterns... the way we live... what we do on a regular basis” (Participant H2A1)

“We have some routines in order to achieve things” (Participant H5A1)

Furthermore, *consistency* in patterns of work and leisure, as previously mentioned in Section 4.5.1.2, facilitated healthy routines comprised of both functional and enjoyable tasks, which in turn assisted in the creation of happy home experiences. *Consistency* itself appeared to be actioned through cooperative relationships between household members where roles

and job allocations were well defined. Relatedly, these positive interactions were facilitated by prior pleasant family engagements. It therefore became clear that home work life balance was enabled by *consistency*, which could also be supported indirectly by positive family experiences—being facilitators of collaborative household arrangements. Please see Table 4.12 for a list of home happiness activities facilitated by the presence of consistency.

Table 4.12– The Full List of Activities for Happiness that were Facilitated in the Home by Consistency During Study I

| Need                           | Corresponding Activities (in order of occurrence)   |
|--------------------------------|---|
| 6. Consistency (allows for...) | <ol style="list-style-type: none"> <li>1. Spending time together</li> <li>2. Achieving goals</li> <li>3. Relaxing/resting</li> <li>4. Exercise</li> <li>5. Eating well</li> </ol> |

All households also indicated that home should be a space with *freedom* to create a context suitable to personal preferences, actions and needs. It became clear that *freedom* provided a foundation for activities associated with *self-love*, *reciprocal love*, *companionship*, *comfort*, *consistency* and *reflections of values* as it was necessary to have *freedom* in making lifestyle choices that satisfied these. One participant described the necessity to move to a new house as his son couldn't climb the stairs. Another discussed not feeling as relaxed at work because she wanted to make a cup of coffee whenever she wanted. Others suggested home should provide:

“The ability to get on and do things” (Participant H3A1)

“[Somewhere] where you don't have to stick to other people's rules” (Participant H5A1)

Furthermore, all households reported a desire for more space. Space was often regarded as an important necessity in the home as it provided occupants with greater *freedom* to do both functional and enjoyable tasks—to pursue previously mentioned home happiness needs. Regarded as a precious commodity in the home, it was influential in decisions regarding home purchases or future alterations, and current contentment with the living space:

“I'd love a bit more space in the kitchen because currently I have to move the kitchen table in and out when it's being used” (Participant H1A1)

“This house was the biggest in terms of space and I was thinking it gives us space to be able to grow into” (Participant H3A1)

Additionally, *freedom* could also be facilitated through the nurturing of cooperative household relationships, brought about by positive family experiences, in the same manner as *consistency*—further solidifying the role of pleasant family scenarios in supporting home happiness. Please see Table 4.13 for a list of happiness enhancing activities facilitated by *freedom* in the home.

Table 4.13– The Full List of Activities for Happiness that were Facilitated in the Home by Freedom During Study I

| Need                       | Corresponding Activities (in order of occurrence)   |
|----------------------------|---|
| 7. Freedom (allows for...) | <ol style="list-style-type: none"> <li>1. Pursuing interests</li> <li>2. Achieving goals</li> <li>3. Personalising the space to one’s aesthetical preference</li> <li>4. Tailoring space to one’s personal tasks</li> </ol> |

*Privacy* was identified as another need. It appeared to support *self-love* activities such as relaxing. Slightly less than half of the participants emphasised a need to maintain a separation between work and home life by segregating the two spaces:

“If you work where you sleep there can be instances where you can’t switch off” (Participant H2A1)

Furthermore, more than half of participants indicated a need for some alone time. For example, Participant H1A1 made this apparent with her preference for quiet periods in the morning after getting her children breakfast, concluding with:

“That can make a really nice start of the day if... I get a bit of time to have my tea and toast in quiet”

Other indications for a need for *privacy* were evident in the following responses:

“If I can I’ll escape to the shed because I have a jewellery studio in the shed” (Participant H7A1)

“Most weekends I go cycle for an hour. That’s my time on my own” (Participant H4A1)



“I get to choose whether to be with people or not” (Participant H10A1)

Again, the need for *privacy* was found to also be supported through positive family experiences; strong social relationships built through these engagements enabled negotiable work and play household schedules, which also afforded individuals alone time when required, such as cycling solitarily. Activities associated with a need for *privacy* can be viewed in Table 4.14.

Table 4.14 – A List of Activities Undertaken in the Home that Indicated a Need for Privacy During Study I

| Need       | Corresponding Activities (in order of occurrence)  |
|------------|--|
| 8. Privacy | <ol style="list-style-type: none"> <li>1. Creating personal space for each other (i.e. giving each other privacy)</li> <li>2. Personalising the space to one’s aesthetical preference</li> </ol> |

All the previously discussed needs and their accompanying activities required some *control* for their achievement—the most overt being *comfort* and *reflection of values*. *Control* was therefore conceptualised as another important home happiness need. For example, to satisfy the need for *comfort* (i.e. by altering lighting and temperature to one’s preferences) or to *reflect values* (i.e. space personalisation) it was necessary to have some *control* in modifying the home environment:

“I’ve done [the house] the way I like with a big extension and new bathroom. We chose and designed that” (Participant H4A1)

“You shape your home... that’s a really obvious way that you can show your personality and the things that are important to you in your life” (Participant H6A1)

As *control* facilitated various activities for home happiness needs, it led to happier homes. Without household members having some *control* over their home, it was not possible to achieve home happiness. *Control* was therefore identified as a foundry need through which other needs for home happiness could be nurtured and encouraged. Furthermore, household compromises, fostered through positive social exchanges, could disperse *control* over the home environment amongst inhabitants, facilitating collective home happiness. Although technically all home happiness activities are included under this need, only home happiness activities overtly facilitated by *control* are detailed in Table 4.15 for conciseness.

Table 4.15 – A List of Occurring Home Activities that Appeared to be Facilitated by Control During Study I

| Need                       | Corresponding Activities (in order of occurrence)  |
|----------------------------|--|
| 9. Control (allows for...) | <ol style="list-style-type: none"> <li>1. Achieving goals</li> <li>2. Personalising the space to one’s aesthetical preference</li> <li>3. Tailoring space to one’s personal tasks</li> </ol> |

Lastly, *security* was the final need to emerge from the data. It was important that home was a secure space for one’s family, enabling them to fulfil previous home happiness needs. For example, nearly half of all participants talked about alterations or decisions they had made about their home to create a safer environment for their children while the remaining others discussed it as a necessity. Exemplary comments included:

“That gate has been put there because of my disability” (Participant H2A1)

“I very much feel as though I can leave [daughter] to do her own thing in our house whereas if we go to a friend’s house and I’m constantly watching” (Participant H7A1)

Furthermore, Participant H4A1 was happy with his current home as it was in a safe area and a big garden was deemed advantageous by Participant H1A1 as it provided a secure place for her children to play unsupervised. In this way, it acted as another supporting need for other home happiness needs such as *self-love* and *reciprocal love*; a safe home allowed the family to relax and spend time together. Corresponding activities for the need for *security* can be viewed in Table 4.16.

Table 4.16– A List of Activities Relating to the Need for Security in the Home During Study I

| Need         | Corresponding Activities (in order of occurrence)  |
|--------------|--|
| 10. Security | <ol style="list-style-type: none"> <li>1. (Allows for) relaxing/resting</li> <li>2. Knowing and socialising with neighbours</li> </ol> |

#### 4.5.1.5 Relationship between Higher and Lower Needs

As previous sections suggest, the data indicated that some needs supported the fulfilment of others. Collectively, those appearing with lesser frequency in the data, referred to as *lower needs*, such as *security*, *privacy*, *control*, *freedom* and *consistency* seemed to facilitate activities

for those more prevalent in findings, labelled *upper needs*, such as *self-love*, *reciprocal love*, *companionship*, *comfort* and *reflection of values*. Results from the data suggested, generally, that to satisfy needs for *self-love*, *reciprocal love*, *comfort*, *companionship* or *reflection of values*, one should have some *privacy*, *freedom*, *consistency*, *security* and *control* in one’s home life—see Figure 4.13 where lower needs are repeated to emphasise that they provide foundation to the higher needs. Therefore, the presence of *upper needs* implied the presence of *lower needs* even though they did not occur with the same frequency in the data.

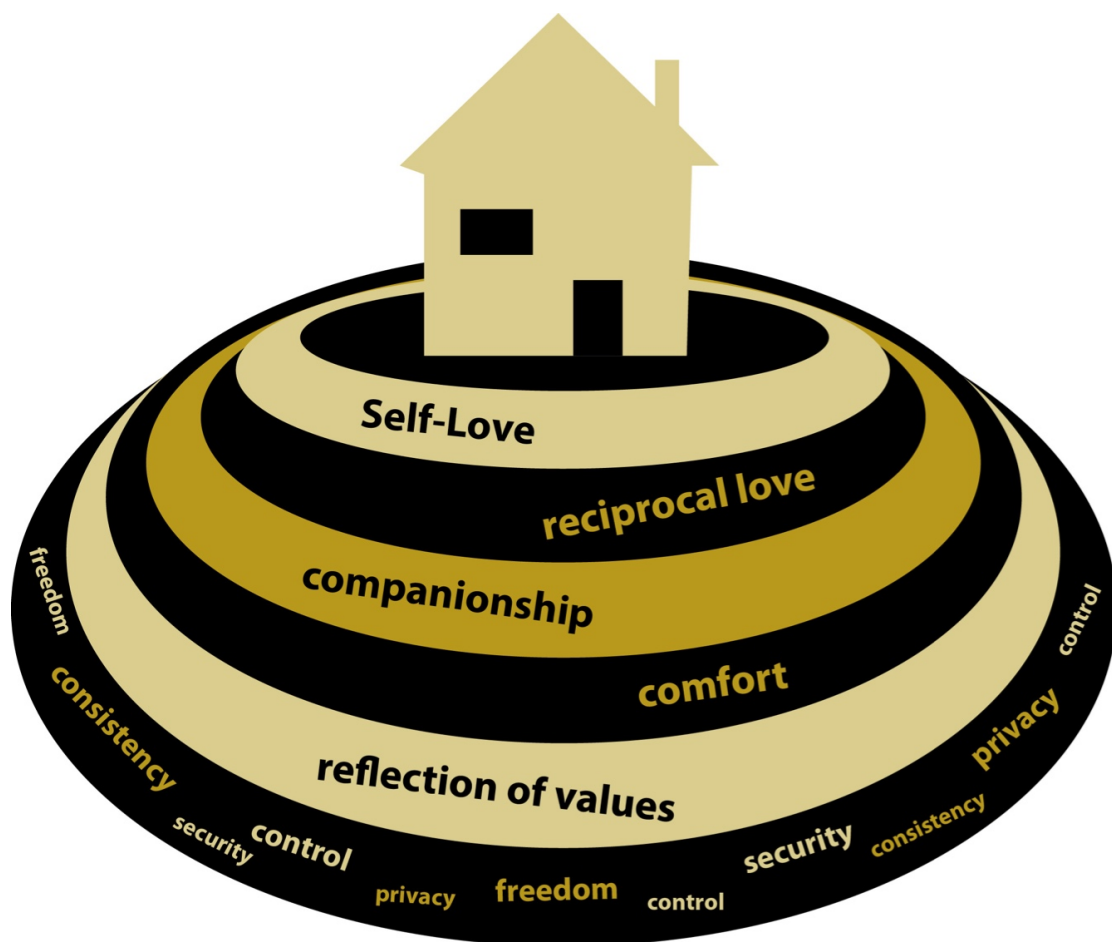


Figure 4.13 – A Visualisation of Higher Needs Supported (located in upper yellow and black stripes) by Lower Needs (located in bottom black oval stripe) for Happiness in the Home, in Order of Occurrence from Study 1 Findings

For example, home could provide a “safe haven”, supplying *control*, *consistency* and *freedom*, allowing children to play unattended and enabling parents to complete activities for *reciprocal love*—such as “emptying the bins” and “loading the dishwasher”—or *self-love*—relaxing or personal hygiene for instance. Similarly, as previously discussed, activities related to the *reflection of values*, *comfort* or *self-love* were not possible without some *control* or *freedom* over

one's home. From a Self-determination Theory viewpoint, the *most common* activities undertaken by participants were an indication of the *most important* needs for home happiness for these individuals in these instances. It is possible that if these households were experiencing a lack of *consistency, control, freedom, security* or *privacy* in their homes, activities for *upper needs* such as *self-love, reciprocal love* and *reflection of values* would have occurred with zero or limited frequency in the data. This sample of households seemed to exhibit relatively happy and healthy home lives and resulting needs and their level of occurrence appeared to be an indication of this. As there were no incentives offered for participation in this study, it is plausible that only those with happy home lifestyles were willing to share and discuss aspects of their domestic routines. Accordingly, those from less happy homes might not be interested in volunteering such information and could have displayed a greater frequency of activities associated with *lower needs*, such as *security* or *control*. This was further verified by comparing these to Maslow's Hierarchy of Needs (see Figure 2.2, p. 19); lower and higher home happiness needs appeared to relate closely to Maslow's basic and psychological needs, following the same sequence they occurred. Higher home happiness needs (e.g. self-love) echoed psychological needs (e.g. love and belonging) and lower home happiness needs (e.g. consistency) generally appeared to align more to basic needs (e.g. food). For example, safety (basic need) tended to be pursued before those for love (psychological need) on Maslow's pyramid, following the same pattern as home happiness needs, *security* and *self-love*. Consequently, it could be theorised that all homes would have similar home happiness needs as they would basic and psychological needs, the importance of which would change depending on circumstances and lifestyle choices. Furthermore, in accordance with the varying functions and affordances of different contexts, happiness needs could appear differently in other situations—for example, a work place might emphasise a strong need for achievement.

#### **4.5.1.6 Home Happiness Needs and their Relationship to Happy Sustainable Society Characteristics**

The conceptualisation of these home happiness needs from home activities allowed connections to be drawn between these and those for happy sustainable societies, using Escobar-Tello's (2010) a priori codes (see p. 88). See Table 4.17.

Table 4.17 – Connections Made Between the Most Important Activities for Home Happiness and Those for Happy Sustainable Societies in Study I

| Corresponding Activities (in order of importance)  | Corresponding Characteristics for Happy Sustainable Societies (Escobar-Tello, 2010)  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Pursuing interests</li> <li>2. Extraversion/socialising</li> <li>3. Achieving goals</li> <li>4. Relaxing/resting</li> <li>5. Exercise</li> <li>6. Eating well</li> <li>7. Acts of kindness</li> <li>8. Personal hygiene</li> <li>9. Adequate sleep</li> <li>10. Self expression</li> </ol>   | <p>Achieving/pursuing goals, self esteem<br/>Extraversion, high interaction<br/>Achieving/pursuing goals, self esteem<br/>Slow change, holistic health, self esteem<br/>Extraversion, holistic health, self esteem<br/>Holistic health, self esteem<br/>Acts of kindness, low material consumption<br/>Holistic health, self esteem<br/>Holistic health, self esteem<br/>Holistic health, extraversion, self esteem</p>  |
| <ol style="list-style-type: none"> <li>1. Family time together</li> <li>2. Satisfying basic needs for each other (i.e. cooking, cleaning)</li> <li>3. Working as a team</li> <li>4. Acts of kindness</li> <li>5. Listening, talking, laughing with each other</li> <li>6. Creating personal space for each other (i.e. giving each other privacy)</li> <li>7. Compromising</li> <li>8. Physical affection</li> <li>9. Showing appreciation</li> <li>10. Sharing spaces and resources</li> <li>11. Teaching/learning from each other</li> </ol> | <p>Extraversion, high interaction, low material consumption<br/>Satisfying basic needs<br/>Extraversion, high interaction<br/>Acts of kindness, self esteem<br/>Holistic health, extraversion, high interaction<br/>Acts of kindness<br/>Extraversion, high interaction<br/>Holistic health, extraversion<br/>Extraversion, high interaction, acts of kindness<br/>Extraversion, sharing products &amp; resources, low material consumption<br/>Extraversion, high interaction, virtuous skills &amp; ethics</p> |
| <ol style="list-style-type: none"> <li>1. Family time together</li> <li>2. Extraversion/socialising</li> <li>3. Knowing and socialising with neighbours</li> <li>4. Participating in local area i.e. clubs, volunteering</li> </ol>  | <p>Extraversion, high interaction, low material consumption<br/>Extraversion, high interaction<br/>Extraversion, high interaction, strong communities<br/>Extraversion, high interaction, strong communities, active citizenship</p>   |
| <ol style="list-style-type: none"> <li>1. Creating physical comfort (i.e. temperature, noise, lighting, smell, soft furnishings, balance between messy and tidy)</li> <li>2. Relaxing/resting</li> </ol>   | <p>Holistic health, satisfying basic needs, self esteem<br/>Holistic health, self esteem</p>   |
| <ol style="list-style-type: none"> <li>1. Maintaining desired appearance of space (i.e. cleaning/tidying, redecorating, repairing)</li> <li>2. Personalising the space to one’s aesthetical preference</li> </ol>  | <p>Slow change, self esteem, achieving/pursuing goals<br/>Holistic health, self esteem</p>   |
| <ol style="list-style-type: none"> <li>1. Spending time together</li> <li>2. Achieving goals</li> <li>3. Relaxing/resting</li> <li>4. Exercise</li> <li>5. Eating well</li> </ol>  | <p>Extraversion, high interaction<br/>Achieving/pursuing goals, self esteem<br/>Holistic health, self esteem<br/>Holistic health, self esteem<br/>Holistic health, self esteem</p>   |
| <ol style="list-style-type: none"> <li>1. Pursuing interests</li> <li>2. Achieving goals</li> <li>3. Personalising the space to one’s aesthetical preference</li> <li>4. Tailoring space to one’s personal tasks</li> </ol>  | <p>Achieving/pursuing goals, self esteem<br/>Achieving/pursuing goals, self esteem<br/>Holistic health, self esteem<br/>Holistic health, self esteem</p>   |
| <ol style="list-style-type: none"> <li>1. Creating personal space for each other (i.e. giving each other privacy)</li> </ol>   | <p>Acts of kindness</p>  |
| <ol style="list-style-type: none"> <li>1. Achieving goals</li> <li>2. Personalising the space to one’s aesthetical preference</li> <li>3. Tailoring space to one’s personal tasks</li> </ol>   | <p>Achieving/pursuing goals, self esteem<br/>Holistic health, self esteem<br/>Holistic health, self esteem</p>   |
| <ol style="list-style-type: none"> <li>1. (Allows for) relaxing/resting</li> <li>2. Knowing and socialising with neighbours</li> </ol>   | <p>Holistic health, self esteem<br/>Extraversion, high interaction, strong communities, active citizenship</p>   |

For instance, satisfying the need for *companionship* by knowing and socialising with one’s neighbours could create *strong communities* and encourage *active citizenship*, cultivating a more proactive context for sustainable initiatives to be promoted. Additionally, by fulfilling the need for *self-love* by engaging in personal interests, improved *self-esteem* and *achieving/pursuing of goals* may occur, reducing one’s desire for excessive material consumption. Similarly, activities under the need for *reciprocal love*, such as spending time with family, could be linked to *lower consumption* as all occupants are in the same vicinity *sharing products and resources*. Furthermore, activities for *reflecting values*, such as repairing

and personalisation of spaces and objects, could encourage *slow change* behaviour and *lower material consumption*.

#### **4.5.1.7 Positive Family Experiences**

Overall, the activity of being and socialising with family seemed to satisfy many needs (i.e. *self-love*, *reciprocal love*, *companionship*) concurrently while also closely linking with characteristics of happy sustainable societies such as *extraversion*, and *sharing of products and resources*. For example, *self-love activities*, such as pursuing interests, achieving goals and relaxing, could be conducted with or in the same space as family members, thus also fulfilling *reciprocal love* and *companionship*. These specific needs appeared to be satisfied the most strongly by positive family experiences as their correspondingly activities closely linked to these moments and existed interdependently during their occurrence. For instance, enjoying the company of family allowed one to feel *self-love* through socialising, *reciprocal love* by being listened to, and *companionship* through the presence of others simultaneously. Furthermore, activities for these needs showed a connection to happy sustainable society characteristics as *self-love*, *reciprocal love* and *companionship* related behaviour (i.e. socialising, acts of kindness) could maintain relatively high levels of self-esteem and home happiness, reducing tendencies towards excessive material consumption and anti-social activities.

Additionally, the existence of acceptance, compromise and teamwork within families, fostered from previous positive experiences, seemed to play a central role in alleviating times of stress, encouraging understanding and periods of relaxation—facilitating lower needs, such as *consistency* and *freedom*. As previously noted, family members could support each other by sharing household chores in a predictable manner, providing everyone with some freedom to pursue personal interests. Furthermore, research suggests that family happiness is more likely to be obtained through familiar activities within the home (Melton and Zabriskie, 2016). Relatedly, family-centred happiness interventions, utilising happiness activities such as gratitude and flow, were previously trialled with Hong Kong households, retrieving positive results (Ho *et al.*, 2016). Moreover, the role of positive family experiences in home happiness also had relevance for other household types. They could be reinterpreted as positive social interactions with household members or neighbours that could, for example, encourage greater cooperation and kindness towards each other in the same manner as positive family experiences. The concept of *positive family experiences* therefore appeared to

show the most promise for the development of future home happiness design concepts and for further investigation.

#### **4.6 Conclusions**

This study enabled the location of important needs for home happiness and, in this way, identified potential areas for ‘designing for home happiness’. The use of photo elicitation in this creative manner helped participants to reflect and become more aware of the emotional significance of daily home activities. Furthermore, this sensitisation allowed them to respond more honestly and openly during interview sessions, such as on ideals for future home happiness and activities that facilitated or inhibited this. The resulting rich verbal and visual data allowed for the conceptualisation of ten needs and accompanying activities for home happiness (see Table 4.6).

The need for love, divided into *self-love* and *reciprocal love*, overwhelmingly dominated all other motivations for home activities. Notably, activities for the *self-love* only slightly outweighed those for *reciprocal love*. The fulfilment of love (self and reciprocal) also appeared to be strongly assisted by supportive relationships between household members. It could therefore be suggested that this need is particularly prevalent in socially healthy homes, its satisfaction a particularly strong indicator of home happiness assuming lower needs are already fulfilled. In other environments, a work scenario for example, the strength of each identified need may shift around or be conceptualised differently as these spaces may require different activities for happiness. Furthermore, the predominance of needs for love seemed to be an indication that this sample had very happy homes, as well as their willingness to share their homes lives. If unhappy, their results might have exhibited a greater devotion to activities associated with lower needs, such as *freedom* and *privacy*, and they may have required incentives to engage in the study.

When considering *positive family time*, needs for *love* (self and reciprocal) and *companionship* appeared to share a more predominant symbiotic relationship than all other identified needs. For example, the practices of *self-love* could be seen to overlap with those associated with *reciprocal love* and *companionship*, and vice versa; a participant could conduct an activity of interest with or while relaxing with his/her partner and children. The fulfilment of the *self-love* need in this family context could thus simultaneously satisfy the need for

*reciprocal love* and *companionship* at the same time. Positive family experiences were therefore concluded to be necessary components of happy homes in these instances.

The associated activities around family time also appeared to strongly resemble the overlapping characteristics of happy sustainable societies such as extraversion, achievement of goals, sharing of products and resources, low consumption and high interaction (see Table 4.17). If one spends more time with one's family in the same space, as suggested by the findings, family bonds are strengthened and hypothetically fewer resources are consumed or wasted. Expectedly, this behaviour encourages cooperation and better communication between family members through experiences that involve preparing and eating meals together or simply enjoying each other's company. Hence, happy sustainable home experiences could be emphasised by encouraging positive family time together.

Considering this, the area showing the most promise for 'designing for home happiness' was identified as the facilitation of *positive family experiences*, achieved by design concepts that either expanded or introduced these periods. This was also applicable in non-family shared living spaces as the same needs (i.e. self-love, reciprocal love and companionship) could be facilitated through the promotion of positive social interactions. Additionally, after discerning some relational qualities of home life from the data, it was identified that encouraging positive relational messages through design artefacts or systems offered another approach to minimising conflict and encouraging this time together in shared accommodation. As indicated by the findings, household objects (e.g. jewellery tree, handmade artefacts) could serve as reminders of happy memories and acts of kindness, creating a more receptive social context for collective positive experiences. It was therefore deemed necessary to complete a more extensive investigation into the concept of *positive family experiences* (and hence positive communal social time) to inform later conceptualisations of home happiness designs.

#### **4.7 Next Steps**

The imagery created from the photo elicitation method provided a snapshot of home happiness aspects and allowed the identification of *positive family experiences* as a promising area for further investigation. The next stages of this research focus on exploring the concept



of *positive family time* more deeply using creative methods, namely art therapy techniques.

This enabled the achievement of the following:

- The identification of applicable art therapy techniques for exploring home happiness
- The establishment of a bespoke workshop format for investigating subjective experiences through art therapy techniques
- The conceptualisation of explanatory frameworks for positive family experiences, including an initial theory

## 5 Phase 2: Study 2 – Initial Theory Building for Designing for Home Happiness

This chapter reports on Phase 2, consisting of a pilot and Study 2, in which art therapy techniques were tested in a research context and used to develop an initial theory of how happier homes could be facilitated. It outlines the procedures, findings and results for Study 2, including the emergence of specialised Art Therapy-led workshops for exploring home happiness and an initial theory explaining its occurrence.

### 5.1 Introduction

As indicated in Chapter 4, Study 1 successfully used photo elicitation as a creative method to evoke emotional participant reactions and reflections. This confirmed the creative method as a solid approach in exploring home happiness in future studies. Furthermore, the literature review identified art therapy techniques as those that encourage greater individual emotional reflection when compared to other creative methods (see Section 2.5.2.2.). They could therefore be used to elicit more detailed subjective descriptions of home happiness (i.e. positive family time) from participants. Consequently, Phase 2 utilised these techniques to create a deeper understanding of positive family experiences and support ‘designing for home happiness’.

### 5.2 Study Aim and Objectives

The aim of Study 2 was to answer the third objective; ‘to test the use of art therapy techniques in conceptualising home happiness triggers into explanatory terms, such as design tools and frameworks’—identifying ways of enhancing home happiness. The most promising ‘way’ was the concept of *positive family experiences*. Study 2 focuses on exploring this more comprehensively, such as its characteristics and facilitators, the relationships between these, and how these could inform design frameworks/tools for home happiness.

The objectives were as follows:

- To examine the concept of *positive family experiences* intensely using the most applicable art therapy techniques
- To formulate these findings into design tools/frameworks for ‘designing for home happiness’

- To formulate an appropriate workshop structure (i.e. timings, format, information and materials supplied, seating arrangements) to answer the third objective (see p. 144)

### 5.3 Methodology

Study 2 and pilot’s methodology approach, outlined in detail in Chapter 3 (see Section 3.6.4.), consisted of numerous qualitative methods and analysis techniques, as well as ethical considerations to facilitate the wellbeing of the researcher and participants through careful study planning and implementation (see Section 3.9). The table below summaries these:-

*Table 5.1 – Phase 2 Data Collection Methods and Analysis Techniques*

| Data Collection Methods    | Analysis Techniques           |
|----------------------------|-------------------------------|
| Art Therapy-led workshops  | Analytical & reflective memos |
| Participant observation    | Session summary sheets        |
| Participant-as-observer    | Sensitising questions         |
| Unstructured interviews    | Open coding                   |
| Semi-structured interviews | Axial coding                  |
| Documentary analysis       | Constant comparison technique |

Section 5.4 and Section 5.5 explain how data collection methods were employed in specific scenarios and Sub-Section 5.4.1 and 5.5.1 discuss the results of related analysis techniques.

The sample for Phase 2 pilot consisted of four colleagues—two males and two females, ages ranging between 27 and 55 from different disciplinary backgrounds. Please see Table 5.2 for participant breakdown:-

*Table 5.2 – Participant Breakdown for Pilot for Study 2*

| Adult | Gender, Age | Discipline         |
|-------|-------------|--------------------|
| A1    | F, 55       | Ergonomics         |
| A2    | F, 28       | Sustainable Design |
| A3    | M, 32       | Human Factors      |
| A4    | M, 27       | Anthropology       |

(F= Female, M= Male, #= Age)

Phase 2, Study 2 sample consisted of ten females and one male, between 31 and 51 years old, from 11 different households currently living with a spouse and/or children or other family members in the UK. Of the 11 households that participated in this study, the mean number

of adult (18+) occupants per household was 2.4 people with a range of 1–3 grown-up individuals, and the average number of children was 0.64 ranging between 0–3 children per household. On average, the age of adult householders was 42 with a range of 18–53 years, whilst the mean age of children was 12 years ranging from 3–17 years. See Table 5.3 for participant composition:-

Table 5.3 – Study 2 Sample Breakdown (shaded boxes indicate those who took part in each household)

| Household (H#) | Adult 1<br>(A1) | Adult 2<br>(A2) | Child 1<br>(C1) | Child 2<br>(C2) | Child 3<br>(C3) |
|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 1              | F, 49           |                 | M, 15           | M, 18           |                 |
| 2              | F, 51           | M, 51           | F, 20           | M, 17           |                 |
| 3              | F, 41           | M, 40           | M, 6            | F, 3            |                 |
| 4              | F, 51           | M, 50           | M, 18           | F, 17           | M, 10           |
| 5              | M, 45           | M, 45           | F, 7            | M, 10           |                 |
| 6              | F, 48           | M, 53           | F, 15           | M, 13           | F, 13           |
| 7              | F, 48           | M, 51           | M, 11           | M, 7            |                 |
| 8              | F, 34           | M, 33           |                 |                 |                 |
| 9              | F, 45           | M, 46           | M, 17           | F, 14           |                 |
| 10             | F, 51           | M, 49           | F, 17           | F, 11           |                 |
| 11             | F, 31           | M, 33           |                 |                 |                 |

(F= Female, M= Male, #= Age)

### *Additional Ethical Procedures*

Notably, as Phase 2 sought to use art therapy techniques for the first time in a research context, it was important to have additional precautionary measures to protect the researcher and participants from harm. For example, to identify such scenarios during Phase 2 Art Therapy-Led workshops, art therapy techniques to be employed were discussed with an art therapist beforehand through a semi-structured interview (see Appendix H). It was also made clear to participants during recruitment and the workshops that they were not engaging in therapy; email and online advertisements for Study 2 stated that workshops did not include therapy, the researcher emphasised this again in each workshops' introduction and adopted a mostly listening stance (i.e. without adding personal analysis of imagery) when participants explained artwork during sessions and follow-up semi-structured interviews. This included following participant cues (i.e. closed and open body language, and energetic or fatigued responses) to move away from or explore certain topics. Furthermore, Study 2 interview questions were vigilantly constructed for their relevance to the topic to limit similarities to therapy sessions (see Appendix I). The researcher also kept contact details for the

Loughborough University and NHS counselling services close to hand in case participants became emotional during workshops or semi-structured interviews.

#### **5.4 Pilot of Study 2**

Given their usual therapeutic setting, it was first essential to extract and evaluate art techniques in a research context through a pilot so that the most appropriate could be identified, modified if necessary and brought forward in Study 2. The pilot's aim was hence to evaluate various art therapy techniques, and related timings and materials to formulate an optimal workshop format that could be employed in Study 2 to answer the third objective (see Section 5.2). The pilot objectives were:

- To test various art therapy techniques in yielding promising insights around positive family experiences
- To identify and validate suitable art therapy techniques to be employed in Study 2
- To assess where modifications to techniques are necessary to encourage the most promising findings around home happiness

Preparation for the pilot included verifying selected art therapy techniques for use in the pilot by reviewing notes from the investigator's previous art therapy training and conducting an hour-long semi-structured interview with an art therapy expert. The art therapist was a contact of a colleague and was invited to interview through email correspondence. Interview questions were created by careful reviewing Art Therapy literature, such as particular techniques that appeared to be unique to Art Therapy when compared to creative design methods—use of silence for example (previously covered in Section 2.5.2.2). The interview took place over Skype at Loughborough University. See Appendix H for sample interview questions and answers.

Following this, the space for this pilot was carefully considered to suit the needs of art therapy techniques being tested; the room was close to a sink (for washing brushes and hands), it had large windows (for natural light), and had ample table space and areas to work on (Malchiodi, 2007). Participants were recruited verbally and through email correspondence with colleagues. To begin the workshop, relevant concepts (i.e. the home is a complex system)

and how activities should be approached (i.e. drawing what feels right as opposed to what looks right) were introduced to participants through a short presentation that included findings from the literature review, Study 1 and examples of art therapy artwork (see Appendix Y). The workshop was planned to last 1.5 hours and was divided into three tasks. The workshop activities, their purpose and corresponding art therapy techniques used are summarised in order of occurrence in Table 5.4.

Table 5.4 – Tasks, Procedures and Rationales of Study 2 Pilot Workshop

| Task   | Procedure  | Rationale   | Art therapy techniques   |
|--|--|---|--|
| <b>Activity 1.</b><br>Image awareness exercise | <p>1. Workshop preparation. Participants to reflect (notes and/or drawings) about a place, such as home or an area that they feel at home in, prior to workshop.</p> <p>2. Participants to share these outcomes with the group (max. 15 mins).</p>   | <p>1. To establish initial interest, create awareness of personally significant images and help participants in interpreting their artworks.</p> <p>2. To serve as an icebreaker activity.</p>  | <p>1. Image awareness (Malchiodi, 2007).</p> <p>2. Individually talking in a group (ibid).</p>   |
| <b>Activity 2.</b><br>Spontaneous art making   | <p>1. Facilitator to provide participants with a diverse range of art supplies (i.e. painting supplies, crayons, markers, colouring pencils, paper of different sizes and colours) and a page each with a black outline of a house.</p> <p>2. Participant to decorate this page using any of the materials available, without speaking (max. 10 mins).</p> <p>3. Participants to individually explain their image to the group once time for the previous task elapses (max. 15 mins).</p> | <p>1. To offer participants greater freedom in art expression.</p> <p>2. To allow for free associations of home meanings, help concentration and reduce contamination from others—‘talking can shatter the image’ (Silverstone, 2009).</p> <p>3. To assist in initial reflection and understandings of each artefacts’ meaning and encourage collective learning—overt contemplations could trigger insights for others about their own artwork (Liebmann, 2004).</p> | <p>1. Creative freedom (Rubin, 2011).</p> <p>2. Free association (Malchiodi, 2007), spontaneous art-making (Rubin, 2001, 2011; Malchiodi, 2007), silent art-making (Malchiodi, 2007; Rubin, 2009; Silverstone, 2009).</p> <p>3. Individually talking in a group (Malchiodi, 2007), limited outsider interpretation of artwork (Malchiodi, 2007; Silverstone, 2009; Curtis, 2011; Rubin, 2011).</p> |

|  |  |  |   |
|--|--|--|---|
| <p><b>Activity 3.</b><br/>Visualising positive family time</p> | <p>1. Participants to visualise a positive family experience using any of the materials provided, without speaking (max. 20 mins).</p> <p>2. Participants to each complete a written exercise, when time for previous activity has ceased, based either on amplification—as many words as possible are noted that closely relate to the prior image created; free association—all immediate thoughts about artwork are documented; active imagination—a meditative state is entered while any imagery that manifests is noted; or Gestalt Theory—a personified description of the artwork is created (max. 10 mins).</p> <p>3. Participants to discuss the meaning of their images with the group without interpretations or interruptions from others (max. 20 mins).</p> | <p>1. To focus participants' attention on the concept of positive family experience.</p> <p>2. To assist participants in interpreting their images; amplification is used to view a subject from all different angles (Malchiodi, 2003), active imagination can amplify image meanings (ibid; Malchiodi, 2007), free association can reveal meanings from the unconscious (ibid), and gestalt techniques can help in understandings of present states of mind as the artwork is understood to be 'the gestalt' of an individual in that moment (ibid).</p> <p>3. To initiate reflection, deeper understandings of image content and encourage collective learning.</p> | <p>1. Silent art making, creative freedom.</p> <p>2. Amplification (Malchiodi, 2003), free association, active imagination (ibid), gestalt technique (ibid).</p> <p>3. Individually talking in a group, limited outsider interpretation of artwork.</p> |
|--|--|--|---|

Instructions for activities were narrated and demonstrated (i.e. through pictorial examples) to help participants understand the workshop's expectations. At the end of the workshop, participants completed a feedback form and unstructured interviews were carried out to clarify their initial thoughts about the session. To encourage honest feedback, unstructured interviews were not recorded but important responses were annotated.

Additionally, due to the reflective nature of the workshop it was deemed important to allow participants additional time to consider their experiences. To that end, one-to-one semi-structured interviews were planned a few days after the workshop to allow additional time for participants to reflect on their artwork's significance and share this in a more private space. Further review of relevant literature also confirmed this as a viable approach as the participant could discover new meanings about artworks over time (Malchiodi, 2007).

### 5.4.1 Results and Next Steps

Generally, the overall format of the workshop ran well in terms of timings, material and art therapy technique usage. All participants reported in the feedback forms and in subsequent unstructured interviews that they enjoyed the experience and would recommend it to others.

#### *Timings*

Most participants reported in follow-up unstructured interviews discussions that the art-making activities would benefit from being longer and that they found it difficult to stop when time was up. This was also made evident during review of video footage; when the facilitator announced time for art-making had finished, usually three out of four participants were still drawing for another few seconds.

#### *Interactions with Materials*

All participants found the instructions and presentation clear, and the materials adequate. However, one participant remarked that additional space between individuals and covering the entire work table with protective paper could be advantageous in future sessions to promote creativity. Regarding the production of artwork, participants were initially timid in approaching materials but their confidence appeared to improve over time. For example, by Activity 3 all participants had transitioned from just using one form of medium (i.e. colouring pencils) to using many simultaneously (i.e. coloured paper, crayons, glue) (see Figure 5.1).



Figure 5.1 – (Read from left to right) Notes and Drawings from Activity 1 (image awareness exercise), then Activity 2 (spontaneous art making) and Activity 3 (visualising positive family time) During Study 2 Pilot Workshop



Furthermore, as different materials were placed at different points of the table where the participants were seated, this seemed to influence their material choices. For instance, piles of magazines placed at the table end were left untouched for the duration of the workshop. Also see comment below:

“I used the crayons... they were the nearest to me” (Participant A4)

Accordingly, materials could be evenly dispersed within easy reach of participants in future workshops to limit this influencing medium choices.

### *Emerging Artwork*

The resulting artwork was very personal to everyone and, consequently, incoherent to the facilitator without additional explanations. This provided a safeguard against making personal evaluations of the artwork and dismissing participants’ feedback. Collectively, the techniques appeared to emphasise participants’ individuality i.e. how they thought of and experienced the world differently (see Figure 5.2).



Figure 5.2 – A Montage of All Artwork Created During Study 2 Pilot Workshop—detailing its mostly abstract and ambiguous quality (written names have been intentionally blacked out)

### *Improving Participant Engagement*

One participant seemed to struggle with the workshop expectations and wanted to give the *right* answers. Later, during unstructured interviews, issues about these difficulties were uncovered and it became clear that previous experiences or assumptions of *good* art could

influence an individual’s workshop experience and enjoyment. Consequently, an additional preparation exercise was included in subsequent workshops that asked participants to reflect on their personal art history, including previous situations with and perceptions of art (Malchiodi, 2007). They could then discuss this with the group at the workshop beginning to confront any negative preconceptions and feel more at ease during later art-making tasks.

### *Results from Using Different Art Therapy Techniques*

Collectively, most art therapy techniques utilised during the pilot workshop appeared to be effective in eliciting appropriate responses. The results are summarised in Table 5.5.

*Table 5.5 – Results of Art Therapy Techniques Employed in Pilot Workshop for Study 2*

| <b>Art Therapy Technique</b>    | <b>Results</b>   |
|---------------------------------|--|
| Image awareness                 | Activity 1 stimulated participants’ reflections about the significance of aesthetical preferences in their surroundings (i.e. facilitators of happiness) and triggered descriptions of how they felt as opposed to what they thought of these. Remarks were made on changing a space to make it homelier, for example, swapping “the office shelves” for a “more homely oval” bookcase because otherwise: “you just feel like you’re at work... 24 hours a day” (Participant A3). It thus seemed to create the right context for later artistic expressions aimed at illustrating feelings (i.e. happiness aspects of home). Furthermore, as they could illustrate their results through writing or imagery—half used both—it initiated the visualisation of feelings. |
| Silent art making               | All participants agreed that silent art making (Activity 2 and 3) greatly aided in task concentration, asserting that discussions might have influenced resulting imagery. Observations of participants during the workshop and, subsequently, using recorded video footage further confirmed this. Participants appeared to be heavily engaged in activities—their body language (i.e. contemplative expressions followed by meditated actions) indicated that they were making thoughtful decisions about their compositions. Resultantly, all emerging artworks were unique when compared collectively (see Figure 5.3).  |
| Individually talking in a group | Talking to the group (end of Activity 2 and 3) appeared to provide a platform for participants to share insights while limiting distraction from art making activities and rationalising of imagery. Echoing the free association technique, by requiring participants to immediately discuss their artwork or listen to others speak about theirs, they had to express or retain their initial reactions before reconsidering them. Most participants overtly reassessing what they were saying while talking to the group illustrated this: “They’re like chakras ... maybe half of them should be missing” (Participant A4). This alongside the use of silence appeared to tease out participants’ primary interpretations.   |

|   |   |
|---|---|
| Creative freedom                                  | By providing participants with a variety of materials to use and gradually advancing the tasks, participants appeared to experience periods of 'flow' (Csikszentmihalyi, 2002) during the session. The preparatory activity allowed documentation of thoughts through illustration or writing and, activities 2 and 3 supported free material use. Furthermore, because they had to dictate all elements of the image, each participant needed to carefully consider all aesthetical choices in relation to what they were trying to portray. Consequently, this appeared to encourage half of participants to think carefully about the roles each family member played in positive family experiences: "These are my sisters who are identical twins. That's why they're the same colour and this sort of grey box down here is my mother... doesn't really fit into what was a tight nit group... [partner] and I are under here because we do hold the whole group together" (Participant A1) (see Figure 5.4). |
| Limited outsider interpretation of artwork        | Throughout the workshop the facilitator maintained an unbiased composure with participants, not offering any interpretations about images, using eye contact and head nods to assume an attentive stance. Occasionally participants were asked additional questions if artwork elements had been left unexplained. As with similar interview techniques (i.e. neutral questioning) (Robson, 2011), this enabled participants to express their thoughts without interruption and, consequently, aided in creating a suitable context for open reflection.  |
| Spontaneous art-making                            | The spontaneous art making (Activity 2), successfully prompted participants to create personally significant home imagery, such as representations of current and past meaningful experiences, ideals and general associations. It also seemed to provide an adequate warm-up exercise towards art making—it allowed participants to freely select and experiment with any available medium to create randomised imagery.   |
| Free association (written exercise, Activity 3)   | This exercise (in Activity 3) did not appear to aid artwork interpretation. The individual given the task, unintentionally, did not complete it, writing down general thoughts about the image instead. Later unstructured interview responses revealed that formalising this technique was unnecessary as free association was already happening naturally in the workshops, such as when participants promptly discussed their artwork to the group. Furthermore, spontaneous art making (used in Activity 2) can be considered a visual form of free association (Rubin, 2001, 2011).  |
| Amplification (written exercise, Activity 3)      | This activity did not seem to help participants decipher artwork. Unstructured interview feedback revealed that, although finding it enjoyable, the participant concerned was unsure if it was useful. Additionally, many art therapists would consider art making a form of amplification (of unconscious thoughts and feelings) (Malchiodi, 2003).  |
| Active imagination (written exercise, Activity 3) | The active imagination exercise appeared not to be beneficial towards artwork understanding. It was revealed during unstructured interview discussions that the exercise was very difficult to perform, and the relevant participant instead fixated on elements of his image that were not depicted adequately. Furthermore, active imagination tends to be an additional means of amplification, and an artwork can already be considered a self-contained amplification (Malchiodi, 2003).   |

|   |  |
|---|--|
| <p>Gestalt technique (written exercise, Activity 3)</p> | <p>This written exercise did not appear to yield further insights into the artwork being explored. It was described as delivering what the participant already knew during unstructured interview conversations.</p> |
|---|--|



Figure 5.3 – A Selection of Images Created During Activity 2 (spontaneous art making) in Study 2 Pilot Workshop

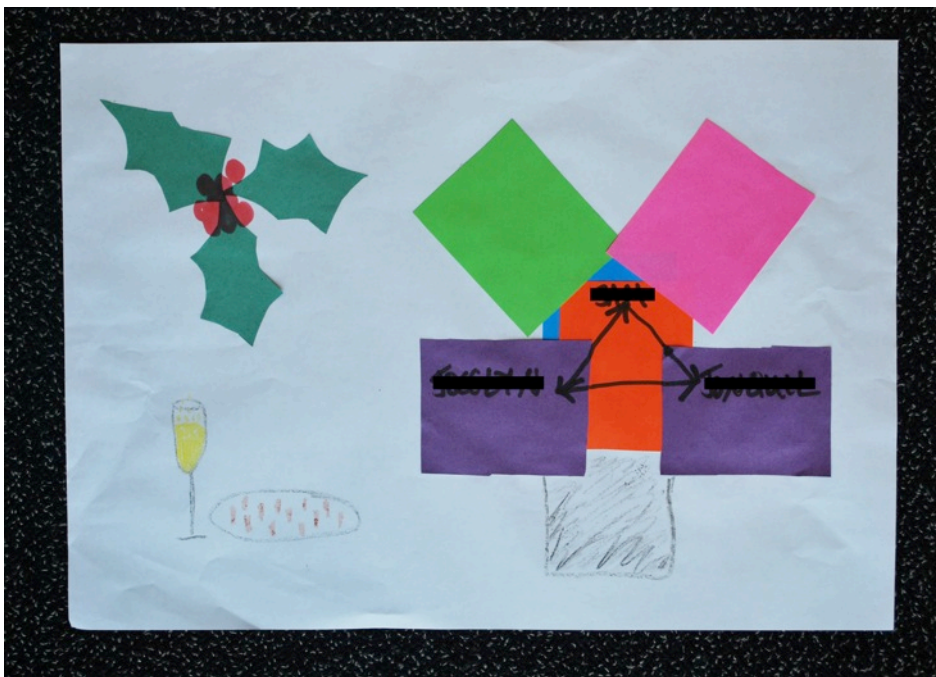


Figure 5.4 – Artwork Created by Participant A1 to Represent a Positive Family Experience (written names have been intentionally blacked out) in Study 2 Pilot Workshop

### *Initial Theoretical Findings*

The follow up one-to-one semi-structured interviews allowed for extended elaborations and discussions of imagery. Through these, preliminary household characteristics and activities that lead to positive family experiences were identified. These included; *communication, support, togetherness, routine/ritual, inclusive activity of common interest, access to good quality food and drink, socially relaxed, comfortable communal space, time doesn't matter* and *synchronisation of rest periods*. Table 5.6 illustrates a breakdown of characteristics and their frequency of occurrence in semi-structured interview discussions—the most common beginning from one.

Table 5.6 – Common Characteristics of Positive Family Experiences in Order of Frequency Mentioned During Pilot of Study 2

| Characteristics of Postive Family Time |                                       |
|--|---------------------------------------|
| 1.                                     | Communication                         |
| 2.                                     | Support                               |
| 3.                                     | Togetherness                          |
| 4.                                     | Routine/ritual                        |
| 5.                                     | Inclusive activity of common interest |
| 6.                                     | Access to good quality food and drink |
| 7.                                     | Socially relaxed                      |
| 8.                                     | Comfortable communal space            |
| 9.                                     | Time doesn't matter                   |
| 10.                                    | Synchronisation of rest periods       |

1. **Communication** was revealed by the data as the most prominent feature of positive family experiences in these instances. Talking was either the main activity of the positive experience or occurred in some way. Pleasant evenings or occasions with family were described as:



“time to relax and talk” (Participant A2)

“...discussing that which is keeping you occupied” (Participant A3)

Evidently, *communication* with loved ones was a key facilitator of positive family experiences as it engaged individuals in joint emotional experiences that could develop into learning, caring and teaching activities:

“It’s the stories that you weave... that construct your environment” (Participant A4)

A bonfire represents this symbolically, with emanating *weaving* lines in Figure 5.5.



Figure 5.5 – Artwork Created by Participant A4 to Represent a Positive Family Experience in Study 2 Pilot Workshop – the fire symbolises the family conversations that create the surrounding space/experience, illustrated by overlapping lines

**2. Support** was also another very prevalent characteristic of pleasant family moments, emerging in discussions through references to activities that involved caring for, playing, teaching or learning from each other. The presence of positive family relations in these instances meant that *support*, both emotionally and physically, was provided:

“[Sister] works extremely hard... as a consequence doesn’t have time to manage lots of practical aspects of her life... so [other sister] and I have to do that” (Participant A1)

“We always talk about our problems” (Participant A4)

3. *Togetherness* was another important feature. All positive family experiences included the family members gathered *together* in some capacity—in the living room area for example. It was each family member’s proximity and resulting interactions that created the experience:

“It’s the people that made the place” (Participant A4)

“We’re all together... no separate spaces” (Participant A2)

A depiction of a positive family experience, in which family members are all together and engaged in different activities at various times of the day, is illustrated in Figure 5.6.



Figure 5.6 – Artwork Created by Participant A2 to Represent a Positive Family Experience in Study 2 Pilot Workshop (written names have been intentionally blacked out)

4. *Routine/ritual* emerged as another feature of positive family occasions. Positive exchanges with family members appeared to have predictability to them. Previous pleasant

engagements could encourage a repetition of similar situations, allowing patterns to emerge and strengthening the possibility of future desirable moments as they became *routine*. Through this, it was not necessary to make any formal arrangements on these occasions as positive family experiences would naturally unfold:

“I don’t think anybody thinks about it... it’s assumed” (Participant A3)

“That’s just the routine” (Participant A2)

**5. *Inclusive activity of common interest*** also greatly aided enjoyable family gatherings, such as watching a television program, sitting out in the garden or completing a productive task together—minding children for example:

“We’re all kind of gravitating around the kids. They’re the ones that [the family] are trying to push forward... it’s always been a very good team’ (Participant A2)

These interactions enabled family members to establish strong bonds between each other while looking after themselves emotionally and physically. For example, a TV series box-set was...

“Something else that we wanted to do that we could all do together, and it kept us together over Christmas” (Participant A1)

Additionally, these inclusive actions encouraged further communication and positive exchanges by providing family members with joint experiences and something to talk about.

**6. *Access to good quality food and drink*** appeared to play an additional supporting role in positive family experiences for most participants by providing a way of showing care towards each other and/or marking special family events:

“Champagne and chocolate... very fundamental in our family relationship to special days... feeding the family is something that I do” (Participant A1) (see Figure 5.4).

“Normally [the family] sit outside [in the garden] and drink either wine or tea... mum brings the wine” (Participant A3) (see Figure 5.7)





Figure 5.7 – Artwork Created by Participant A3 to Represent a Positive Family Experience in Study 2 Pilot Workshop

In this manner, food and drink added to both physical and emotional enjoyment of the experience, by supplying pleasant flavours and acting as vehicles for shown care and affection towards family members:

“[Nephews] likes to do pancakes... I do try to have milk and flour in the house for them... my motto is to ensure that there is always food in the house... I need to ensure that everyone is fed” (Participant A2)

*7. Social relaxed* also appeared to feature in positive family events. Individuals reported feeling calm and uninhibited around family members, which seemed to contribute to their happiness in the moment. This evidently afforded greater opportunities for self-expression, open communication and a sense of belonging, supporting overall happiness:

“I have feelings of great closeness to my sisters... I do feel part of something” (Participant A1) “There’s not so much that needs to be said... you can sit in silence with [family]” (Participant A3)

8. *Comfortable communal spaces* were another apparent important aspect of positive family instances that emerged; these appeared to accommodate many individuals at once and could therefore provide a platform for positive experiences with others. Furthermore, family members could actively encourage pleasant group gatherings by seeking out adequate space and furniture—rearranging these to generate *comfortable communal spaces* that accommodated collective interaction:

“The setting really helps... it has two sofas facing each other... enough space to seat everyone” (Participant A2)

“Mostly [Christmas] did happen in our house because we were the house that could accommodate these people” (Participant A1)

9. *Time doesn't matter* in these positive family occasions, evidently another component of such instances. The removal of time constraints, in effect, served to increase the relaxed nature of the experience and happiness derived from it. Individuals could immerse themselves in the moment and focus on their engagements with loved ones free of distraction:

“There's nothing else to do... it's just time to relax and talk” (Participant A2)

“I'm just sat living... the time doesn't matter” (Participant A3)

10. *Synchronisation of rest periods* was the final notable characteristic of positive family experiences, where family members appeared to actively take time out in each other's company for pleasure. The desire to do this appeared to be influenced by previous positive moments spent together, associating the presence of one's family members with happiness. This reinforced the concept that pleasant family experiences were initiated and sustained through a positive cycle of happy occasions together and desire to recreate and/or sustain them:

“Christmas would be inconceivable without my sisters... my sister only ever goes on holiday if one of us arranges [it] and tells her she's coming with us” (Participant A1)

“Mam would call all of us in [to the bedroom] ... she just liked having us around” (Participant A4)

Overall, the pilot confirmed the effectiveness of art therapy techniques in eliciting emotionally rich outcomes relevant to home happiness generated from positive family experiences. Additionally, ways of improving the workshop’s effectiveness (i.e. placement of materials, time allocated for art making activities) and promising initial findings for the concept of positive family experiences were identified. Accordingly, these results were used to plan and launch Study 2 workshops.

## 5.5 Study 2

Over the duration of Study 2, participants provided robust evidence for the deep exploration of how positive family experiences contributed to home life happiness. Study 2 consisted of two workshops that followed the improved format illustrated in Table 5.7—also see Appendix Z for workshop protocol example.

Table 5.7 – Tasks and Procedures Followed in Study 2 Workshops and Rationales

| Task   | Procedure   | Rationale   | Art therapy techniques   |
|--|---|---|--|
| <b>Activity 1.</b><br>Sharing of personal art history & image awareness exercise results | Workshop preparation.<br>1. Participants to reflect (notes and/or drawings) on their previous experiences and perceptions of art, and about personal home spaces prior to workshop.<br><br>2. Participants to introduce selves and share reflections with the group (max. 20 mins). | 1. To dispels any false expectations of later art-making activities, negative associations with materials, initiate reflection about home and provide a platform for participants to relate to each other, such as the discover of shared experiences—both positive and negative.<br><br>2. To serve as an icebreaker activity. | 1. Personal art history (Malchiodi, 2007), image awareness.<br><br>2. Talking individually in a group. |

|  |  |   |   |
|--|--|---|---|
| <p><b>Activity 2.</b><br/>Spontaneous art making</p>           | <p>1. Facilitator to provide participants with a diverse range of art supplies (i.e. painting supplies, crayons, markers, colouring pencils, paper of different sizes and colours) and a page each with a black outline of a house.</p> <p>2. Participant to decorate this page using any of the materials available, without speaking (max. 10 mins).</p> <p>3. Participants to individually explain their image to the group once time for the previous task elapses (max. 15 mins).</p> | <p>1. To offer participants greater freedom in art expression.</p> <p>2. To allow for free associations of home meanings, help concentration and reduce contamination from others.</p> <p>3. To assist in initial reflection and understandings of each artefacts' meaning and encourage collective learning.</p> | <p>1. Creative freedom.</p> <p>2. Free association, spontaneous art-making, silent art-making.</p> <p>3. Individually talking in a group, limited outsider interpretation of artwork.</p> |
| <p><b>Activity 3.</b><br/>Visualising positive family time</p> | <p>1. Participants to visualise a positive family experience using any of the materials provided, without speaking (max. 30 mins).</p> <p>2. Participants to discuss the meaning of their images with the group without interpretations or interruptions from others (max. 30 mins).</p>   | <p>1. To focus participants' attention on the concept of positive family experiences.</p> <p>2. To initiate reflection, deeper understandings of image content and facilitate collaborative learning.</p>   | <p>1. Silent art making, creative freedom.</p> <p>2. Individually talking in a group, limited outsider interpretation of artwork.</p>   |

Please see Figure 5.8 for an image of the final layout for Study 2 workshops and the workshop in action.



*Figure 5.8 – An Image of the Final Room Layout (top) and Workshop in Action (bottom) for Study 2 Workshops*

Participants were recruited through email correspondence, an online advertisement and poster flyers (see Appendix AA) around the Loughborough locality. Each workshop lasted 2 hours and was followed up with half-hour individual semi-structured interviews with a view to investigating resulting artworks more deeply. This providing a more private setting for discussing these. Interview questions were personalised in response to each participant's use of colour, materials, placement and size of relevant figures during the workshop. These were carefully chosen for their appropriateness to explore positive family experiences. See Appendix I for Study 2 interview schedule sample. As with Study 2 pilot, the facilitator employed a mostly listening approach (i.e. without adding personal analysis of imagery) with participants when they discussed their artwork during workshops and follow-up semi-structured

interviews to limit sessions echoing therapy or interpretations of the researcher influencing results. Field notes were used to document important thoughts and reflections during the workshops as they occurred, such as whether timings for activities were sufficient. Video and audio footage was employed to create transcriptions of workshop discussions for later analysis and provide referencing material to reflections on overall workshop formats, such as timings and participant engagement. Memos were written up after the ending of each workshop, using field notes to clarify thoughts and interpretations of events and note any areas of further enquiry (Robson, 2011, p. 473) (see Appendix K). Feedback forms were issued to participants at the end of each session to capture initial thoughts and responses to the overall workshop experience i.e. adequacy of materials and timings for each activity, clarity of instructions and effectiveness of techniques (see Appendix J for example).

### **5.5.1 Results and Findings**

The analysis of results from Study 2 workshops located various applicable concepts for ‘designing for home happiness’. These included additional workshop qualities that assisted participant emotional reflection, further roles of household artefacts in long-term happiness, types of positive family experiences, and deeper conceptualisation of their characteristics and how they are created. These findings are discussed in the following sections.

#### ***5.5.1.1 Facilitating Personal Reflection and Sharing***

Collectively, Study 2 workshop activities appeared to create the right social context for overt personal contemplation. For example, by asking participants to share any negative perceptions or previous experiences with art and significant aspects of their home aesthetics during Activity 1, they began to draw connections between each other’s experiences and home life, which appeared to create a suitable environment for emotional expression and personal sharing. Some reported feeling supported because others acknowledged having the same experience in similar situations:

“We’re all in the same boat” (Participant H7F48)

“Sometimes you have this picture that all other families are wonderful... then you think I’m not the only one’ (Participant H2F51)

This, in turn, led to a nurturing atmosphere for later art making and open reflections. Subsequently, the spontaneous artmaking included in Activity 2 allowed participants to visually free associate significant themes that were discussed in Activity 1, such as personal ideals and perceptions of home. Later, through illustrating positive family experiences in Activity 3, participants' momentary happiness appeared to be amplified as this affirmed the presence of these in their life. For example, during the follow-up semi-structured interviews, responses indicated that the workshop activities made most participants appreciate the positive moments they had with family:

“It made me think I have a positive family experience with my family every day and I really do value that” (Participant H3F41)

“I feel really loved by my husband and lucky... to plan our free time together” (Participant H10F34)

Consequently, the workshop also appeared to facilitate a platform for acknowledging the good things in one's home life. Furthermore, semi-structured interview feedback inferred that the activities provided engaging and enjoyable experiences through overt statements relating to this:

“It was the nicest thing I did that day’ (Participant H5M45)

“I really enjoyed it” (Participant H6F48, Participant H7F48)

Accordingly, this positive affect appeared to encourage greater responsiveness from participants in follow-up semi-structured interviews. Participants were very obliging when interview dates were set and seemed to enjoy discussing their images at length; very little prompting was required, and many wanted to continue talking after the allocated interview time had finished.

#### **5.5.1.2 Exploring Home as a Place of Meaning – Identity, Narrative and Ideals**

Participants created a total of 24 artworks during Study 2. The descriptions and reflections of artwork revealed aspects of participants' personality, such as personal preferences/ideals, perceptions about other people and situations in the home, and additional roles household artefacts played in home happiness. For example, all significant household objects that

participants discussed in Activity 1 could be placed under one or more of the following headings; *aspirational*, *connections*, *roots*, *history*. Home being an extension/reflection of the self or ideal self (see Section 2.2.1.3), *aspirational* household objects included those that signified owners' values or those they wished to possess, such as aesthetically pleasing images and/or artefacts depicting places, activities, artistic compositions or things of personal interest. For example, description of these objects included:

“two illustrations by an artist I really like... they inspired me to go back and do some linocut” (Participant H4F51)

“photographs of places [and] landscapes... I like being outside all the time and that's reflected in the way I have chosen my living room” (Participant H7F48)

Artefacts signifying *connections* were those that evidenced significant relations with others, such as photographs with friends and family or gifts received. Family imagery was important for serving as reminders of love in one's life and previous positive experiences that displayed evidence of these moments. Most participants discussed these as significant visual features while others mentioned hand-made artefacts of similar importance:

“The key things are things that people had made” (Participant H4F51)

“A painting by a friend... I like it because she made it” (Participant H8F34)

Objects/imagery under *history* signified important moments in one's life narrative, such as enjoyable experiences with loved ones or achievements—a graduation photo for example. Accordingly, these created visual signifiers of positive experiences, mostly with others in these cases, encouraging life appreciation. Some related responses are included in the following:

“We have a yellow jug that reminds me of small people being small and... being sort of a symbol of family time” (Participant H5M45)

“I've got some photos of myself and my partner which I've had enlarged when we went travelling. It just reminds me of the time before having children” (Participant H3F41)

Artefacts associated with *roots* included objects/images that had belonged to relatives or were purposed as reminders of relations, including previous or current family relationships. These objects appeared to facilitate closeness with deceased loved ones, allowing individuals



to maintain some happy associations and *rootedness* in the family tree using something tactile in the present:

“I’ve got some wooden elephants that I really like. They’ve been passed down from my dad and his mother and her [mother]... there’s that sense of connection that I quite like” (Participant H3F41)

“...paintings of my husband’s father who passed away... we’ve got two of those, which we really love because it’s a really nice memory of him” (Participant H4F51)

Consequently, positive family experiences not only led to happier homes, they also encouraged home display and decoration with meaningful artefacts, which, in return, strengthened these by encouraging future pleasant experiences and/or triggering happy memories.

For Activity 2, some important home qualities were visualised both consciously and unconsciously by participants. This included the desire for home to be welcoming, warm, lively and calming, sometimes energising. Everyone had a unique way of creating and illustrating this, which further emphasised home as a reflection of the ideals, preferences and personalities of its inhabitants. For example, Participant H6F48 viewed blues and green as quite “warm”, “welcoming” and “calming” colours so the main areas of her artwork for Activity 2 were decorated using these (see Figure 5.9).



*Figure 5.9 – Artwork Created by Participant H6F48 During Activity 2 of Study 2 Workshops*

Furthermore, the images were also representative of personal lifestyles and home experiences:

“Everything in my life is... chaotic, mismatched... I couldn't cut [the images out] precisely because that just wouldn't be me... that's how I see my house” (Participant H6F48) (see Figure 5.9)

“I made circles because... they were like little windows looking out ... because we like being out and free I suppose” (Participant H7F48) (see Figure 5.10)



Figure 5.10 – Artwork Created by Participant H6F48 During Activity 2 of Study 2 Workshops

However, some of elements included were purely down to personal preferences:

“I just really like pink as a colour” (Participant H6F48)

During Activities 2 and 3, positive aspects of home life were generally illustrated using colours that were considered warm, calming or happy. A significant proportion of participants employed yellow to denote happy home spaces. For example, Participant H10M45 explained that his attic studio was yellow because it represented his happiness (see Figure 5.11); Participant H4F51 incorporated sunshine in all her reportedly positive family depictions (see Figure 5.11) and Participant H2F51 also employed this because sunshine was the first thing that came to her mind when depicting imagery of fond moments (see Figure 5.12).



Figure 5.11 – Artwork Created by Participant H10M45 During Activity 2 (left-hand side) and Artwork Made by Participant H4F51 for Activity 3 (right-hand side) of Study 2 Workshops



Figure 5.12 – Artwork Created by Participant H2F51 During Activity 2 of Study 2 Workshops

Correspondingly, more than half of participants described warmth/brightness as being an important feature of a comfortable home, using associative colours (i.e. yellow and orange) in their depictions to create/mimic *happy* environments (see Figure 5.13).



Figure 5.13 – Artwork Created by Participant H11F31 During Activity 2 (left-hand side) and 3 (right-hand side) of Study 2 Workshops

Others placed a preference on calmness and peace in the home. For example, Participant H10F51 used a large amount of green in her artworks for Activities 2 and 3 (see Figure 5.14) because she saw it as a relaxing and tranquil colour.





*Figure 5.14 – Artwork Created by Participant H10F51 During Activity 2 (left-hand side) and 3 (right-hand side) of Study 2 Workshops*

Another view was that home was a base for pursuing external activities where its décor was tailored to represent previous outside excursions and/or symbolise hobbies that the families took pleasure from, such as traveling. For instance, Participant H10F34 depicted a planisphere that hung in her home, during Activity 3, as traveling was an important component of the household’s happy home experiences—herself and her partner updated this after each journey and used it to plan the next excursion (see Figure 5.15).



*Figure 5.15 – Artwork Created by Participant H10F34 During Activity 3 (blue was used generously as it was the participant's favourite colour) of Study 2 Workshops*

In contrast, negative themes were depicted using dark monotone colours such as grey or black, which tended to illustrate obstacles to family time or a happy home environment. Notably, these were minimal, possibly due to the workshops' theme of home happiness. Consequently, discussing home happiness also provided a means of describing its barriers without probing too deeply into sensitive issues, which could prove useful if working with participants from disadvantaged backgrounds (i.e. low-income households). An example included Participant H2F51's need to make commitments with her son, represented by a grey heavy line on the right-hand side of the page (see Figure 5.16), to encourage him to take part in family occasions.



Figure 5.16 – Artwork Created by Participant H2F51 to Represent a Positive Family Experience During Study 2 Workshops

This was possibly represented negatively because in ideal positive family scenarios individuals spend time together without need for restraints. This was confirmed from examining other reported family instances, all of which included members voluntarily collectively engaging. Additionally, echoing previous Study 1 findings (see Section 4.5.1.4), Participant H1F49 described her fear of the household attic (see Figure 5.17) as it was an unused and impersonal space, and therefore lacked *reflection of values* and *security*:





*Figure 5.17 – Artwork Created by Participant H1F49 During Activity 2 of Study 2 Workshops*

“I don’t like roof space that is unused... to me it’s a very black and grey area” (Participant H1F49)

Evidently, it was difficult for home to facilitate happiness if it was deficient of personalisation, potentially creating strong negative affect—at least in this case. Furthermore, she used her favourite colours, pink, blue and grey, to create some calm in what could be a busy home environment.

Regarding enablers of home happiness, most participants appeared to include a physical object in their positive family moment illustrations that played a central role in facilitating the experience that dominated the composition. For example, Participant H1F49 created an image representing the family celebrating Halloween, which had a fireplace that provided warmth and motivated them to come together. See prominence of fire in Figure 5.18.



Figure 5.18 – Artwork Created by Participant H1F49 During Activity 3 of Study 2 Workshops

Other instances of this are summarised in Table 5.8 below.

Table 5.8 – Details of Specific Objects that Placed a Central Role in the Positive Experiences of Several Households in Study 2 Sample

| Participant | Experience  | Prominent Object/Enabler |
|-------------|---|--------------------------|
| H2F51       | Family watching movie on a couch (see Figure 5.16).                           | Couch and cushions       |
| H3F41       | Family playing with a balloon while lying on the ground (see Figure 5.19).    | Balloon                  |
| H5M45       | Family gathered around an open fire (see Figure 5.20).                        | Fire                     |
| H8F34       | Family using planisphere to record and plan trips together (see Figure 5.15). | Planisphere              |
| H9F45       | Family gathered at a dining table having 'Sunday lunch' (see Figure 5.21).    | Dining table             |

|        |  |             |
|--------|--|-------------|
| H10F51 | Family having an Easter egg hunt in the garden (see right-hand side of Figure 5.14). | Back garden |
| H11F31 | Family lying on each other on a couch (see right-hand side of Figure 5.13).          | Couch       |



Figure 5.19 – Artwork Created by Participant H3F41 During Activity 3 of Study 2 Workshops





Figure 5.20 – Artwork Created by Participant H5M45 During Activity 3 of Study 2 Workshops



Figure 5.21 – Artwork Created by Participant H9F45 During Activity 3 of Study 2 Workshops

The remaining participants emphasised that multiple things, such as food and specific activities, were employed to create positive family home experiences. For example, Participant H7F48 talked more generally about birthday celebrations and the positive actions that resulted from these, such as enjoying birthday cake and “singing Happy Birthday” (see Figure 5.22).



*Figure 5.22 – Artwork Created by Participant H7F48 During Activity 3 of Study 2 Workshops*

Additionally, Participant H4F51 gave a more general overview of many happy family occasions, including celebrations and holiday experiences (see right-hand side of Figure 5.11), and Participant H6F48 discussed a regular planned family ritual where household members ate finger food together in the living room while watching a program and/or playing a game (see Figure 5.23).





Figure 5.23 – Artwork Created by Participant H6F48 During Activity 3 of Study 2 Workshops

Overall, it became clear that positive family experiences were enabled or facilitated by physical objects in the environment, either providing context for the moment or motivating actions that led to happy instances with others.

### 5.5.1.3 Conceptualising Positive Family Time – Relationships between the Characteristics of Positive Family Experiences

Upon further examination, conclusions regarding relationships between the characteristics of positive family experience could be drawn. For example, features such as *synchronised rest periods*, *access to good quality food and drink*, *comfortable communal space*, *support*, *time doesn't matter*, *socially relaxed* and *routine/ritual* could be seen to facilitate family *togetherness*. A *comfortable communal space* encouraged family members to rest together if their scheduled break times coincided. For example, Participant H6F48's family gathered in the living room for their positive family moments, which was further facilitated by the warmth of the fire, television playing, and presence of food and drink.

Furthermore, *access to good quality food and drink* could encourage eating and drinking together especially if: *time didn't matter*, it was part of the household's *routine/ritual* and the

family felt *socially relaxed* around each other. For instance, Participant H9F45’s positive experience involved the family making and eating ‘Sunday lunch’ together:

“It’s nice to prepare food together... when we do we really enjoy it” (Participant H9F45)

Similarly, family *togetherness* clearly encouraged the presence of *communication* (e.g. talking together), which facilitated engagement in an *inclusive activity with a common interest* (e.g. playing a game) and *support* (e.g. looking out for each other). For instance, Participant H10F51 planned an Easter egg hunt for the family every year; she supervised this to make sure her younger daughter could reach the eggs, sometimes hiding them in her pocket to create more fun.

#### 5.5.1.4 Physically Enacted and Emotionally Felt Characteristics of Positive Family Experiences

The analysis of the above-mentioned characteristics highlighted that these could be divided into those that were *physically enacted* and those that were *emotionally felt* (see Figure 5.24).

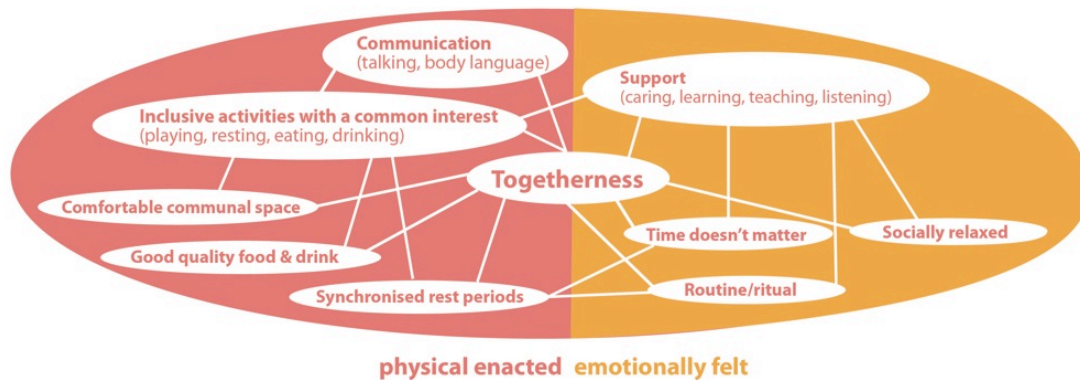


Figure 5.24 – Physically Enacted and Emotionally Felt Characteristics of Positive Family Experiences

Physically enacted characteristics included *access to good quality food and drink*, *comfortable communal space*, *synchronised rest periods*, *communication*, and *an inclusive activity of common interest* as they were all reliant on action from family members. For example, appealing food and drink needed to be provided; a comfortable communal space had to be configured; family members needed to synchronise their schedules and communicate to each other to engage in an activity that everyone found interesting. Emotionally felt characteristics

included; *time doesn't matter*, *socially relaxed*, *routine/ritual* and *support* as they appeared to be naturally experienced during positive family occurrences without conscious action. For instance, all participants described positive family experiences where they had *support*, were *socially relaxed* and that *time didn't matter*. For some, positive family experiences were *routine*, which added to the *social relaxedness* of the moment. Additionally, *togetherness* could be *physically enacted* and *emotionally felt* as it was both caused by a physical action and emotionally felt through interaction with others. For example, Participant H9F45 talked about the importance of feeling comfortable as family together and having the ability to play around with each other without being conscious of what others think. Another exemplary response included:

“The physical contact again, the stroking heads, the snuggling up is nice... just by engaging in the activity... you're doing it for the people” (Participant H2F51)

Furthermore, the stimulation of *physically enacted* characteristics seemed to facilitate *emotionally felt* characteristics—effectively combining to create and/or increase positive family experiences. For example, a *comfortable communal space* with (or without) *good quality food and drink* could promote a *socially relaxed* atmosphere, encouraging family members to engage with each other. Through this, shared mental (i.e. talking about problems) and physical experiences (e.g. resting, eating) are made possible, having an emotionally and physically *supporting* effect on those involved. Over time, repeated interactions like this, could encourage family members to make time for each other so that *time doesn't matter* and it becomes *routine/ritual* (see Figure 5.25).



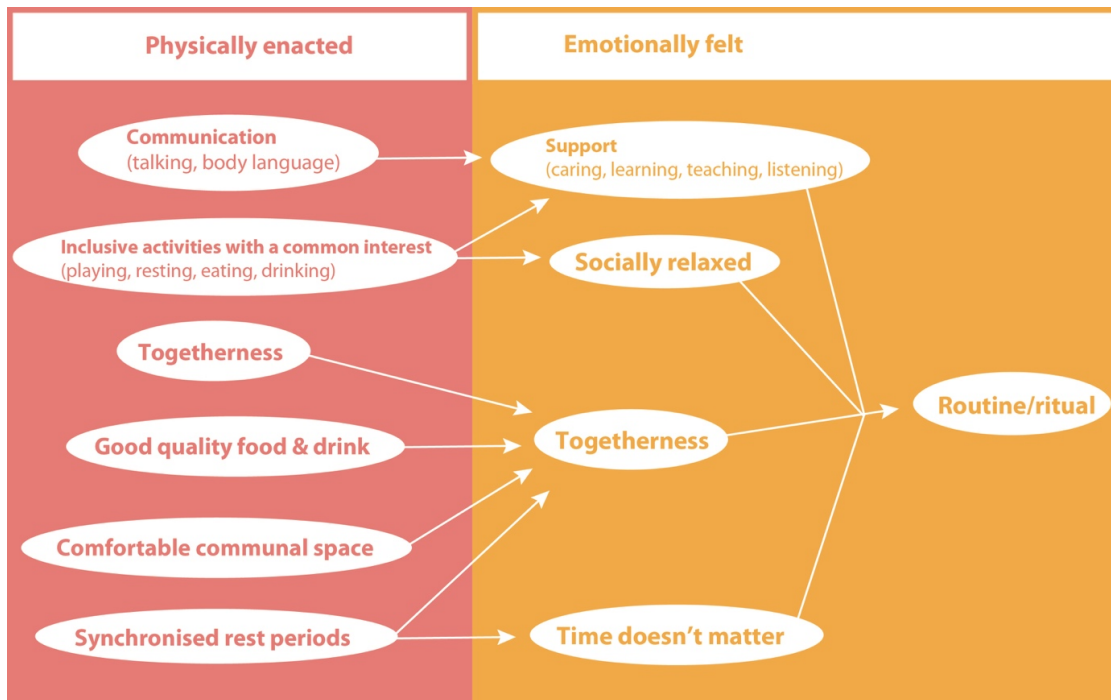


Figure 5.25 – How Physically Enacted Characteristics of Positive Family Experiences Can Lead to Emotionally Felt

#### 5.5.1.5 Physical and Emotional Binders of Physically Enacted Characteristics of Positive Family Experiences

After further consideration of the data, it was identified that only certain *physically enacted* characteristics were *essential* for positive family experiences to occur as the stimulation of certain *physically enacted* could naturally lead to all *emotionally felt* characteristics of pleasant family instances. Consequently, *emotionally felt* characteristics could not exist without the presence of *physically enacted* characteristics to facilitate them. *Essential physical qualities of positive family experiences* included *togetherness* and *synchronised rest periods*, as previously mentioned. Others were more generally *an object and/or environment that could facilitate a positive group interaction*, such as a comfortable communal space. These are called *physical binders* for the purposes of this research as they were found to *physically bind* family members to the experience by providing a material object or context that caused individuals to be part of the moment. In this manner, some previously identified physically enacted characteristics, such as a *comfortable communal space* and *access to good quality food and drink*, could be now grouped under *physical binders*. Table 5.8 includes examples of physical binders found in the sample households.

The last *essential* characteristic for positive family experiences was *an inclusive activity of common interest*, eating or talking together for example. These are referred to as *emotional*

*binders* because they were found to *emotionally bind* family individuals to the moment either through *pleasure*—physiological needs satisfaction, relaxing for example—and/or through *engagement*—psychological needs fulfilment through development of a skill (i.e. *flow*), cooking for instance. In other words, *emotional binders* are activities that make individuals collectively feel good in the moment (i.e. through *pleasure*) and/or upon reflection afterwards (i.e. through *engagement*), and by repetition through various positive family experiences, can lead to home happiness. For example, Participant H9F45 discussed a time when the family would all come together for ‘Sunday lunch’. This scenario would contain several *emotional binders* such as cooking, eating, talking and, subsequently, relaxing together. The *physical binder* during mealtime was the dining table, which may have become the couch or the living room space when the family was resting together afterwards. Understanding this, activities formally located under the characteristic *communication* could now be placed under *emotional binder* because it included talking activities that emotionally engaged family members in a positive experience together (see Table 5.9).

Table 5.9 – Essential Physically Enacted Characteristic of Positive Family Experiences and Description

| Essential Physically Enacted Characteristic of Positive Family Experiences    | Description   |
|---|---|
| Synchronised Rest Periods   | Family members make time for each other and/or spend an extended period together                                      |
| Togetherness  | Family members physically come together   |
| Physical Binder (includes ‘comfortable communal space’ and, ‘food and drink’) | An object and/or environment that facilitates a positive experience e.g. living room                                  |
| Emotional Binder (includes ‘communication’ and ‘inclusive activities’)        | An activity that provides a common positive physical and/or emotional experience e.g. talking and/or resting together |

Specific *essential physically enacted characteristics* were found to encourage the existence of certain *emotional felt* qualities. For example, *physical binders* created *socially relaxed* atmospheres in all positive family experiences by supporting contexts that enticed shared physical experiences; a comfortable communal space with a game could encourage *emotional* interactions of multiple individuals simultaneously (e.g. playing) by exhibiting these

opportunities transparently. Generally, *physical binders* appeared to overtly *communicate opportunities* for enjoyable communal activities to family members, creating a *socially relaxed* atmosphere and inspiring corresponding *emotional binders*. Physical binders, an open fire for example, could potentially create a *socially relaxed* atmosphere if its context exhibited the ability to adequately accommodate many individuals for an extended period, as evidenced by Participant H5M45's reflection of a positive family moment involving this:

"It's a time to sit down and ponder stuff... something I appreciate and don't often have"  
(Participant H5M45)

Additionally, *physical binders* (i.e. household environments and related objects), by making opportunities for collective happy experiences explicit, could play a key role in enabling other family members to show love towards each other. For example, by organising an Easter egg hunt in the home garden, Participant H10F51 seemed to create a *socially relaxed* atmosphere through the presence of physical binders—Easter eggs and a safe environment (i.e. garden)—to accommodate the game. Furthermore, as physical binders are physically enacted—they require some action from participants for their existence—it is plausible that happiness benefits/possibilities of potential physical binders in unhappy homes are not overt to occupants, reducing the likelihood of positive family experiences. Additionally, as the quality of these are reliant on the inhabitants, such as creating welcoming and playful environments, unhappy homes may put less time into orchestrating these scenarios as they, by nature, do not anticipate them. Taking previous concepts (i.e. home happiness needs, Maslow's Hierarchy of Needs) into account, unhappy homes are defined as those that have difficulty satisfying basic/lower home happiness needs due to low income and/or trying social circumstances (i.e. suffering a bereavement or a chronic illness, lack of social/family support due to distance or poor relationships), making them less likely to fulfil psychological/higher home happiness needs.

Correspondingly, the activities/emotional binders during positive family scenarios, ensuing from *physical binders* (i.e. facilitating objects and/or environments) could allow family members to feel *support*, either *physically* by satisfying biological needs (i.e. rest) and/or *mentally* through the fulfilment of psychological requirements (i.e. love). Because of this, the emotional enacted characteristic formally known as *support* will now be referred to as *supported* to denote its double meaning (i.e. physically and/or emotionally supported).

Evidently, positive family moments could not only satisfy multiple home happiness needs—such as *self-love* and *reciprocal love* (discussed in Chapter 4)—and psychological needs through *emotional binders*, they could also facilitate basic needs (see Maslow’s Needs, Figure 2.2, p. 19). This was inferred by all positive family moments discussed involving one or more *emotional binders* relating directly to basic needs, including relaxing and eating. Furthermore, *emotional binders* for basic needs could theoretically fulfil some lower home happiness needs (discussed in Chapter 4) such as *security* and *consistency*—by providing affirmation of possessing a safe environment and access to essentials—*freedom* and *control*—by exhibiting the ability to sleep, eat, drink when needed—and *privacy*—when fundamental requirements are met away from public areas. Furthermore, the apprehension of certain home happiness needs (i.e. *reciprocal love*) could support the satisfaction of others (i.e. *privacy*)—as previously covered in Section 4.5.1.4.

Moreover, by facilitating basic needs fulfilment, emotional binders could motivate *activities for pleasure* (The Pleasant Life), and through satisfying psychological needs they encouraged *activities for engagement* (The Good Life) (i.e. developing one’s strengths/virtues) and *activities for meaning* (The Meaningful Life) (i.e. using one’s skills for others)—expanded upon in Section 5.5.1.6. However, not all pleasant family moments explored in this sample directly elicited the existence of *activities for engagement* or *meaning*. Although, in many instances, these activities appeared to be *supported* by these experiences. For instance, Participant H10F51 used her strengths to facilitate an enjoyable experience (i.e. Easter egg hunt) for her family, creating an *activity for meaning*. Additionally, Participant H5M45 gave evidence that he was *engaged* when watching (*emotional binder*) a fire with his family, developing the strength ‘perspective’—see Peterson and Seligman (2004) for full list:

“Situations like this allow you to reflect on things” (Participant H5M45)

Furthermore, being *physically together* could naturally allow family members to feel more *emotionally together*. For example, Participant H2F51 mentioned that “physical contact” was an enjoyable aspect of her positive family experience. Additional relevant statements about feeling of *togetherness* included:

“The enhancing [of the experience] is the physically being together... by engaging in the activity [because] you're doing it for the [other] people” (Participant H2F51)

“You feel a sensation of security, warmth [when] the people most important to you are... all in the same place” (Participant H9F45)

For differentiating purposes, physically enacted *togetherness* will now be referred to as *together* and emotionally felt *togetherness* will remain as such. Relatedly, *togetherness* might not exist strongly in unhappy households where relationships are not well established and there is a low history of positive experiences to evoke this when *together*. In these cases, it appears more important to focus on encouraging *emotional binders* that fulfil both biological and psychological needs, motivated transparently through physical binders, to build happier homes.

Returning to specific instances in the data, *synchronised rest periods* would allow family members to feel as though *time doesn't matter* and that they wanted to be together, having consciously made time for each other:

“A time when we're not forced together... but we're happy to be altogether... when we're not thinking about school... or work” (Participant H4F51)

“We're all so busy. [Celebrating birthdays is] a nice time to come together... everyone has time for each other” (Participant H7F48)

Again, certain physically enacted characteristics (*synchronised rest periods*) can be seen to initiate emotionally felt qualities (*time doesn't matter*) of positive family experiences. Figure 5.26 presents a generalised illustration of how physically enacted characteristics can lead to emotionally felt qualities, combining to create positive family moments.

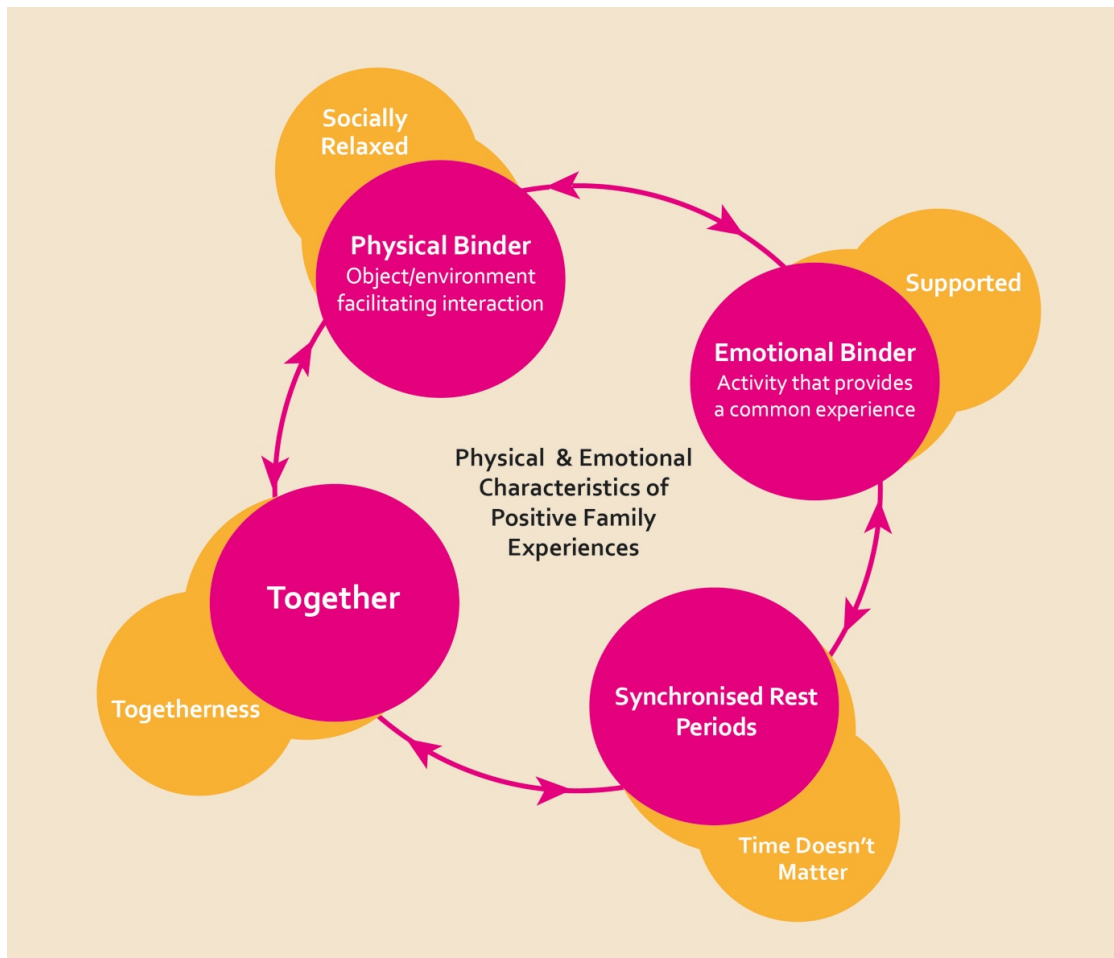


Figure 5.26 – A Generic Depiction of Which Physically Enacted Characteristics of Positive Family Experiences Lead to Particular Emotionally Felt Qualities and How These Collectively Equate into Pleasant Family Occasions

Lastly, the repetition of all the *essential physically enacted characteristics*, such as *physical binder*, *emotional binder*, *together* and *synchronised rest periods*, could eventually allow a positive family experience to become *routine*—as previously suggested in Figure 5.25. The emotionally felt characteristic, *routine/ritual*, was therefore not *essential* for creating positive family experiences but could be a means of testing its positive affect. If a positive family experience becomes routine, it is clearly successful in increasing the family’s happiness.

#### 5.5.1.6 **Passive and Interactive Physical Binders, and Lower and Higher Level Emotional Binders and their Role in Home Happiness**

Further analysis revealed that there are different types of *emotional* and *physical binders*. For example, physical binders (i.e. objects/environments of positive family experiences) are divided into those that were *interactive* and *passive*. An *interactive physical binder* is any object that the family members interact with during the positive family experience, and that plays

a central role in the moment. For example, the family might play a game together using a board game, which in this instance would be the *interactive physical binder*. These could include but are not limited to food and drink, television, fire/fireplace, board games, balloons, balls, and arts and crafts. *Passive physical binders* include those objects or environments that provide context for the experience, such as a living room, kitchen, table, chairs or couch. For example, the family might engage in long conversations while relaxing on the couch in the living room. In this instance, the living room and/or the couch is the *passive physical binder* for that experience. Considering this, positive family home experiences always include a *passive physical binder*, such as an environment or object or both that provided a framework for the experience. Understanding this, *interactive physical binders* are not *essential* to positive family occasions but can *enhance* the experience. For example, the presence of food and drink, such as tea, coffee and biscuits, could prolong the duration or amplify the enjoyment of a family conversing on the couch. In this case, all households described *passive* and *interactive physical binders* playing a part in their positive family experiences. In particular, over half of participants discussed food as being a central aspect of the moment. For example, Participant H6F48 stated that positive family time:

“would just be fire on, tele on, food, drink...we would eat off our laps... just plates and fingers” (Participant H6F48)

Additionally, Participant H9F45’s description of a positive family experience revolved around the preparation of ‘Sunday lunch’:

“It’s nice to prepare food together and bring it to the table” (Participant H9F45)

Similarly, emotional binders (i.e. the activities within positive family experiences) can be grouped into those that are *high* and *lower* level. As previously mentioned, emotional binders made family members feel *supported physically* through achievement of basic needs and *supported mentally* by fulfilling psychological needs, and could be divided into happiness activities for *pleasure* (i.e. satisfying biological/lower home happiness needs), *engagement* and *meaning* (i.e. fulfilling higher home happiness/psychological needs). It was therefore possible to separate emotional binders into *lower level emotional binders*—those that provided *physically supported pleasure* through behaviours such as eating, drinking and resting—and

*higher level emotional binders*—those that supplied *engagement* and *meaning* through activities like playing and learning (see Table 5.10).

Table 5.10 – Descriptions of Physical and Emotional Binders, Their Sub-types and Examples

| Physically Enacted Characteristic | Physical Binders   |   | Emotional Binders   |  |
|-----------------------------------|--|---|---|--|
|                                   | Interactive  | Passive   | Lower Level   | Higher Level   |
| Description                       | An object that family members interact with during the positive family experience that play a central role in the moment | Objects and/or environments that provide context for a positive family experience | Activities within positive family experiences that satisfy physiological needs, providing happiness as pleasure/hedonic happiness | Activities within positive family experiences that fulfil emotional/psychological needs, leading to happiness as engagement and/or meaning/eudemonic happiness |
| Examples                          | Board game<br>Food and drink<br>Television<br>Ball<br>Craft materials<br>Fire  | Comfortable communal space<br>Couch<br>Chairs<br>Table<br>Bed                     | Eating<br>Drinking<br>Resting<br>Sleeping   | Playing<br>Learning<br>Teaching<br>Listening<br>Caring   |

Evidently, positive family time could support Seligman’s ‘authentic happiness’ by facilitating *The Good Life* (engagement) and *The Pleasant Life* (pleasure) through *higher* and *lower level* emotional binders, encouraging *The Meaningful Life*. An example of this could include creating a meal for the family. Eating/tasting the food provides happiness as *pleasure*; the action of making the dish motivates happiness as *engagement* as it requires using one’s strengths (i.e. creativity) (*The Good Life*); the gesture of putting one’s talents into something greater than personal pleasure such as the family’s enjoyment facilitates happiness as *meaning* (*The Meaningful Life*). Accordingly, *higher level emotional binders* could be divided into *emotional binders for engagement* (i.e. cooking) and *emotional binders for meaning* (i.e. giving), and *lower level emotional binders* could also be called *emotional binders for pleasure* (i.e. eating). Correspondingly, as physical binders support emotional binders, potential *physical binders for pleasure, engagement and meaning* could also be identified. In the previous example, the *physical binders for pleasure* include the food cooked and the chairs for seating. Those for *engagement* could involve the cooking utensils, the table and serving tray. Lastly, the food



itself and the dining room could be transformed into *physical binders for meaning* through the act of making (*emotional binder for engagement*) and giving to others (*emotional binder for meaning*). In this manner, *physical binders for pleasure, engagement or meaning* could be both *passive* and *interactive* (see Table 5.10). Table 5.11 illustrates a list of descriptions and examples of *emotional* and *physical binders for pleasure, engagement and meaning*.

Table 5.11 – Descriptions of Physical and Emotional Binders for Pleasure, Engagement and Meaning, and Examples

| Physically enacted feature | Physical binders for...  |   |  | Emotional binders for...  |   |   |
|----------------------------|--|---|--|---|---|---|
| Types                      | Pleasure (interactive or passive)  | Engagement (interactive or passive)   | Meaning (interactive or passive)                                       | Pleasure (lower level emotional binders)  | Engagement (higher level emotional binders)   | Meaning (higher level emotional binders)  |
| Description                | Objects and/or environments that supports emotional binders for pleasure             | Objects and/or environments that support emotional binders for engagement   | Objects and/or environments that support emotional binders for meaning | Activities within positive family experiences that satisfy physiological needs, providing happiness as pleasure—hedonic happiness | Activities within positive family experiences that fulfil psychological needs through the development of strengths, providing happiness as engagement—eudemonic happiness | Activities within positive family experiences that fulfil psychological needs by using strengths for others, providing happiness as meaning—eudemonic happiness |
| Examples                   | Food and drink<br>Television<br>Chairs<br>Couch<br>Bed<br>Comfortable communal space | Comfortable communal space<br>Toys<br>Art supplies (i.e. paint, brushes, clay, paper)<br>Cooking utensils<br>Board games<br>Instruments<br>Craft materials (i.e. textiles, thread)<br>Books |  | Eating<br>Drinking<br>Resting<br>Sleeping<br>Hugging<br>Cuddling  | Playing<br>Learning<br>Teaching<br>Listening<br>Caring  | Making gifts<br>Teaching<br>Cooking for others<br>Celebrating for others<br>Helping others<br>Comforting others   |

Notably, there are no set *physical binders for pleasure, engagement or meaning* as this is dependent on the emotional binder in action. For example, a physical binder such as a comfortable communal space could support emotional binders for pleasure (i.e. resting),

engagement (i.e. talking) and meaning (i.e. consoling) simultaneously. Although, some physical binders will more directly facilitate certain emotional binders than others. For instance, a bed's main function is for rest and sleep, and so it is more explicitly an *emotional binder for pleasure*. However, this could also be a potential site for *emotional binders for engagement* (i.e. talking in bed) and *meaning* (i.e. being brought breakfast in bed). Similarly, a board game, given its playful connotation, appears as a *physical binder for engagement*. However, the presence of other family members playing a board game might motivate an individual to take time out and join the game—transforming it into a physical binder for pleasure (i.e. it supports rest) *and* engagement (i.e. it facilitates playing).

Notably, one of the identified *essential physically enacted* characteristics for positive family experiences was *synchronised rest periods* as it was necessary for family member to take time out/rest (satisfy a basic need) from their busy schedules before they could engage/contribute to a positive family experience. Furthermore, there was a strong presence of food in most reported family experiences. This suggests that it was important to satisfy some physiological needs, through *emotional binders for pleasure* such as eating and resting, before family members were likely to engage in *emotional binders for engagement* or *meaning* during positive family experiences. As previously stated, this is also supported in Maslow's Hierarchy of Needs in which biological needs may require supplementing before psychological needs are pursued (see Figure 2.2, p. 19).

Furthermore, with further evaluation of how emotional binders (lower and higher level) could lead to feeling *supported* (physical and psychological), it seemed more important that unhappy homes are motivated towards *higher level emotional binders* than those that are already happy. It is conceivable that a happy home is as such because its inhabitants have had plenty of *higher level* experiences (i.e. containing *emotional binders for engagement* and *meaning*) with each other historically. Understanding this, *emotional binders for pleasure* such as eating, drinking and resting together could be enough to maintain happy homes as these serve as reminders of prior *higher level* instances and already well-established relationships. For example, this can be seen in the feelings of warmth one might get from lying on a loved one. Although technically both individuals are resting (i.e. engaging in a basic need/*lower level emotional binder*) they may experience feelings of love (psychological/higher home happiness need) from this interaction which has been, arguably, made possible from previous

*emotional binders for engagement and meaning*—helping each other for example. Given this, it is plausible that unhappy homes are in greater need of *higher level emotional binders* to build strong and supportive relationships which may be lacking, thereby contributing to current home unhappiness. Notably, the satisfaction of basic needs initially (i.e. through *emotional binders for pleasure*) will make the active pursuit of *higher level emotional binders* more likely in these circumstances.

#### **5.5.1.7 Planned, Routine and Spontaneous Positive Family Experiences**

After further analysis of the data, different types of positive family experiences were identified: *planned, spontaneous* and *routine*. *Spontaneous* pleasant family scenarios could occur anywhere at any time in the home. They were instigated by an environment and/or object accommodating the interaction of multiple people (*physical binder*), creating a *socially relaxed* atmosphere, and motivating the family to come *together*, stop what they were originally doing (*synchronised rest periods*) and interact (*emotional binder*) with each other. For example, Participant H5F45's pleasant family moment was spontaneously instigated by the presence of a fire (*interactive physical binder*); it led the family to group *together* for a prolonged period (*synchronised rest periods*) to watch it (*lower and higher level emotional binders*)—looking at the fire provided both relaxation and space for contemplation (see Figure 5.20). Another instance of a spontaneous positive family experience included a planisphere (*interactive physical binder*) that motivated Participant H8F34 and her partner to come *together*, give each other attention for an extended period (*synchronise rest periods*) and plan (*emotional binder for engagement*) their next holiday (see Figure 5.15). A generic model of how spontaneous positive family moments are created is illustrated in Figure 5.27.

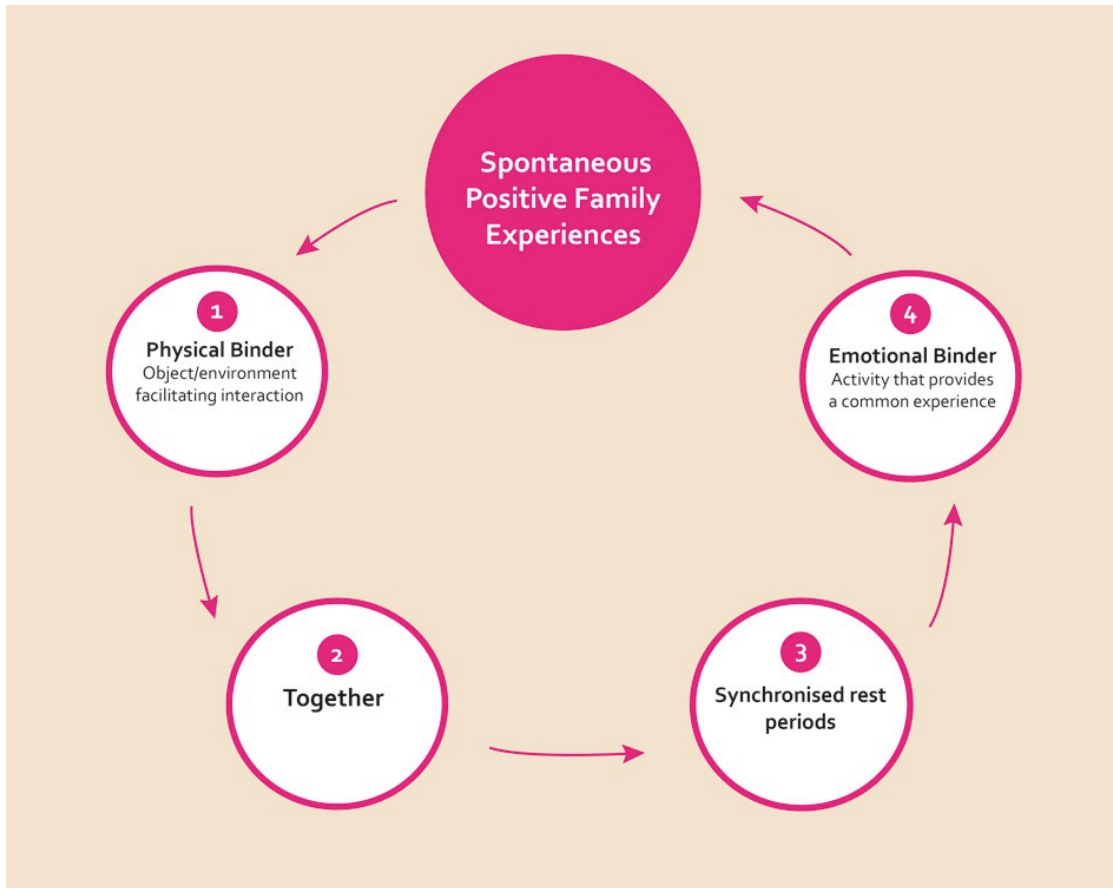


Figure 5.27 – The Sequence in which Physically Enacted Characteristics Occur During Spontaneous Positive Family Experiences

*Routine* family moments were those that had some predictability in terms of time and what would happen, requiring minimal preparation. They occurred when the family members were naturally *together* and a *physical binder* in the surroundings would enable/encourage contact (*emotional binders*), motivating them to spend a significant portion of time with each other (*synchronised rest periods*). An instance included Participant HF41’s description of a positive family moment; it would take place every day between five and six, when they were altogether (*together*). They would do something different each evening but in the example provided they were in the living room (*passive physical binder*) with a balloon (*interactive physical binder*), using it to play a game (*emotional binder for engagement*) with each other (see Figure 5.19). In other words, a *routine* positive family experience began with the family being *together*. Then through engagement with an interactive and/or passive *physical binder*—such as a balloon and living room floor—a *higher* and/or *lower level emotional binder* would be enabled—playing or relaxing for example—which would encourage family members to *synchronise their rest periods* in the moment to make the

enjoyment last longer—and plan future occasions. Figure 5.28 demonstrates a model of how these features interact with each other during routine family pleasant moments.

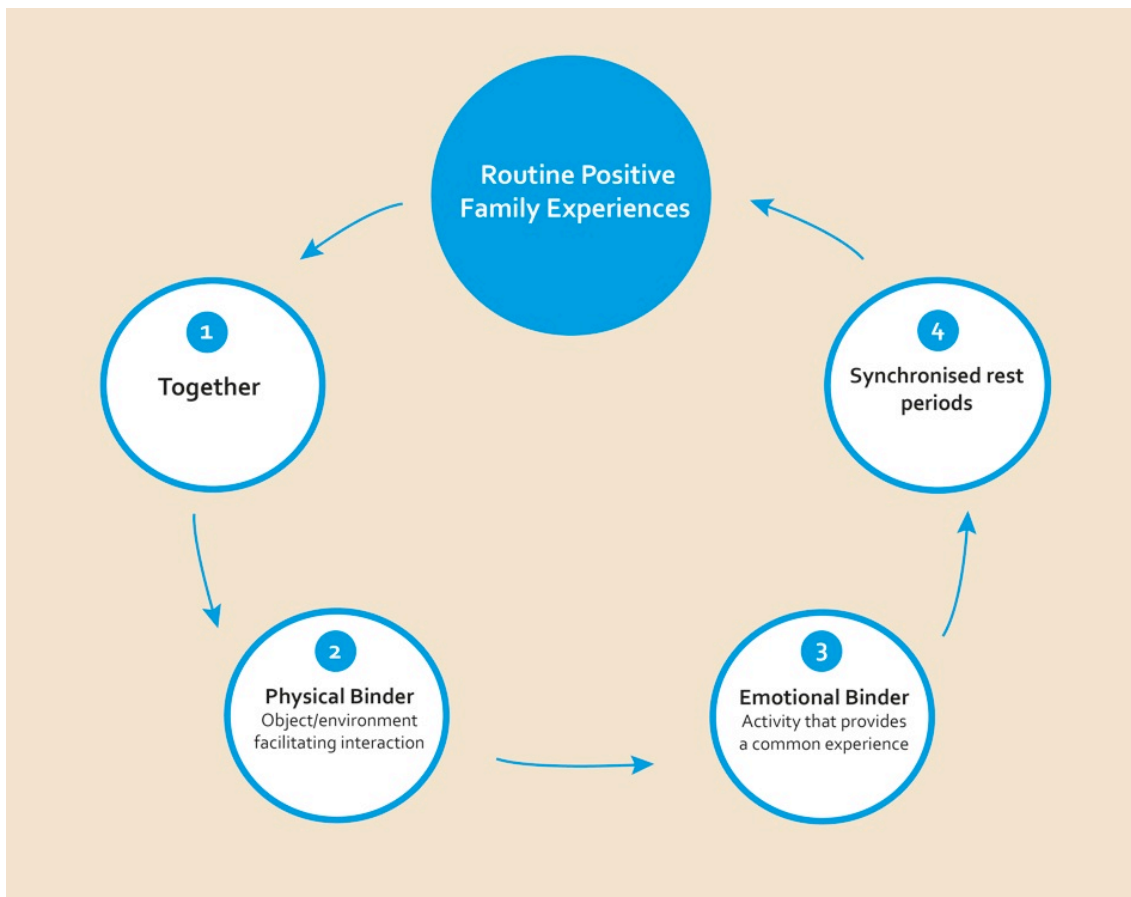


Figure 5.28 – The Sequence in which Physically Enacted Characteristics Occur During Routine Positive Family Experiences

In contrast, *planned* family experiences required conscious planning and communication with others. This was necessary to get:

“everyone in the same room, doing the same activities at the same time... because everyone is usually in and out doing their own activities” (Participant H6F48)

A *planned* family experience appeared to begin by family members consciously *synchronising their rest periods* so that they could come *together*, in which a *physical binder* would facilitate an inclusive activity/*emotional binder* leading to the positive moment. For instance, Participant H2F51’s positive family experience involved the family planning a time (*synchronised rest periods*) to be *together* on the couch (*passive physical binder*), in front of the

television (*interactive physical binder*), to relax (*emotional binder for pleasure*) with each other and watch a film (also see Figure 5.16):

“We kind of planned it as something to do over Christmas... it’s unique because it doesn’t happen that often... there aren’t that many opportunities” (Participant H2F51)

In this case, the main physical binder was the couch as it allowed for physical contact such as “the stroking [of] heads” and “snuggling up”. The primary *emotional binder* was the “lying around” while watching the film was secondary. These were considered *emotional binders for pleasure* because they fulfilled the need for rest. Notably, as previously mentioned, physical contact with/company of relatives can also lead to feelings of connection and love (psychological needs) because of prior positive experiences (i.e. including emotional binders for engagement and meaning) with these individuals, such as showing acts of kindness. In happy home scenarios, positive family moments that are mostly composed of *emotional binders for pleasure* (i.e. relaxing together) could be theorised as generally sufficient in maintaining these as they also act as prerequisite for psychological/higher home happiness needs through positive associations between family members.

Another example of a *planned* positive family experience included Participant H6F48’s description. Her household would *plan* an evening together (*synchronised rest periods*) to gather with each other (*together*) in the sitting room (*passive physical binder*) with food, drink, board games and the television (*interactive physical binders*) on to eat, drink, watch TV, play games and talk (*emotional binders*) (see Figure 5.23). Please see Figure 5.29 for a visualisation of how positive family moment qualities interact during *planned positive family experiences*.

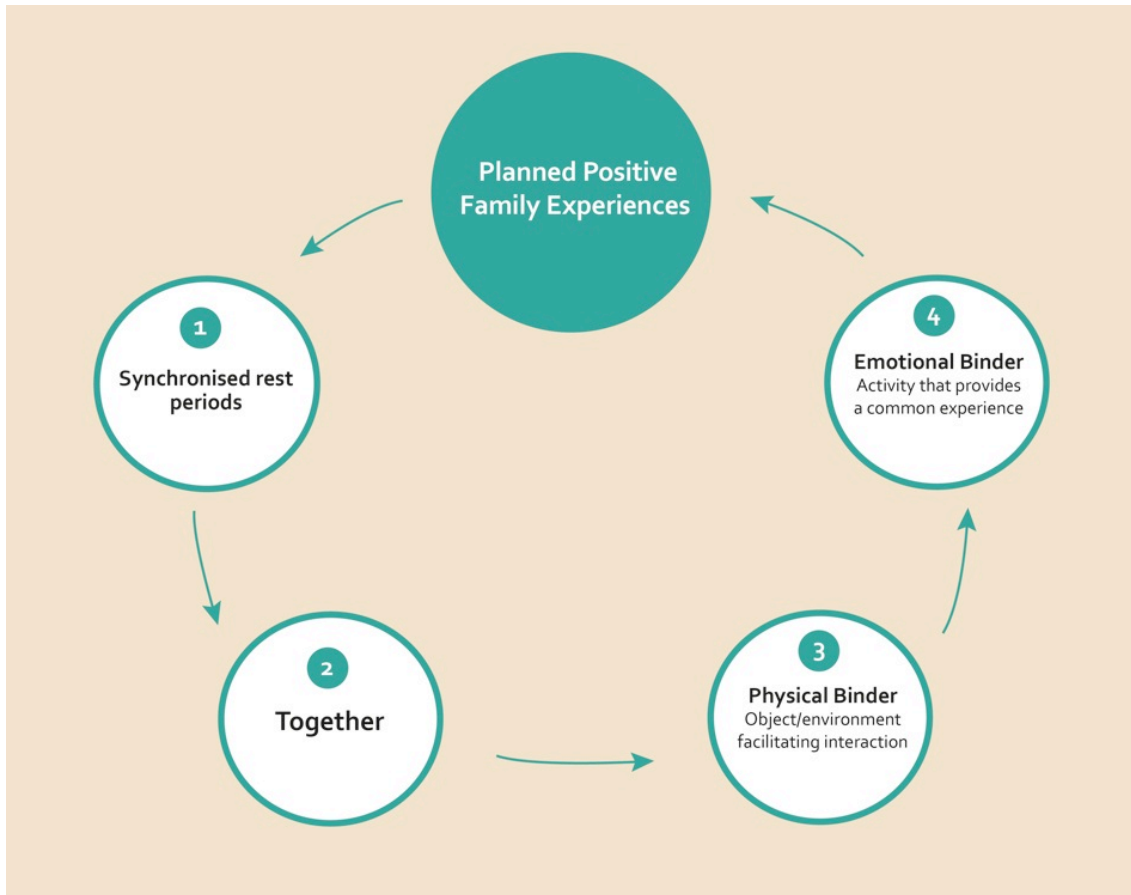


Figure 5.29 – The Sequence in which Physically Enacted Characteristics Occur During Planned Positive Family Experiences

#### 5.5.1.8 Designing for Happier Home Experiences and the Home Happiness Theory

Through the identification of different positive family experiences types (*planned*, *routine* and *spontaneous*) it was possible to locate different design approaches for happier homes. These included using design to help households (1) *plan time together*, (2) *enhance routine time*, and (3) *create/employ appealing physical binders for spontaneous group interactions*. Furthermore, additional examination of varying positive family experiences allowed for the location of the most suitable design strategy for unhappy homes—such as those that struggle to satisfy basic/lower home happiness needs due to low income and/or social circumstances (i.e. minimal social/family support), reducing their likelihood of fulfilling psychological/higher home happiness needs. This was conducted by considering what experience and related approach could conceivably increase the happiness of unhappy homes, such as those from disadvantaged areas lacking financial resources to maintain happy home lives. It was assumed that this strategy would be sufficient for already happy homes that only required minor improvement, their needs being less severe than those of unhappy homes.

For example, enabling homes to *plan time together* was deemed inapplicable for several reasons; *planned* family experiences were reliant on individuals making time for each other (i.e. synchronised rest periods) and appeared to occur in relatively happy homes where inhabitants were busy but willing to schedule periods together. It is conceivable that unhappy homes may be less motivated in planning positive family moments—for example, if the availability of resources to create the right context for these experiences are limited. Additionally, due to minimal positive family experiences together, individuals from less happy homes may not have established strong relationships, reducing the likelihood of them instigating social activities with each other.

Furthermore, *enhancing routine time* also did not appear to offer a viable design approach as few or none of these moments would be present in unhappy homes. *Routine* experiences resulted from pre-existing high-quality relationships between family members, and therefore difficult to design for; in such scenarios, individuals naturally seized moments to enjoy each other's company. In this sense, routine positive family experiences were the ideal pleasant family moments; they happened regularly with minimal prompting and represented an experience that was particularly successful at supporting home happiness and easy to repeat, allowing it to become routine—some effective positive family experiences may not become routine because they require certain circumstances to be replicated (e.g. barbecue with family from overseas).

However, using design to *create/employ appealing physical binders for spontaneous group interactions* could increase happiness in unhappy homes. As previously mentioned, *spontaneous* family moments happened randomly without prior planning and were initiated by physical binder(s) that inspired family members to come together for a prolonged period and interact. Notably, physical binders that are passive—they only provide context for the experience, such as a comfortable couch—are appropriate in happy homes with well-established relationships; these groups need minimal prompting or support to create positive moments. Consequently, unhappy homes also require *interactive* physical binders, such as board games, to encourage communication between family members, building positive relationships and moments that may be lacking. Furthermore, if the spontaneous family moment was particularly successful in satisfying the happiness of all family members, it could naturally evolve into a routine pleasant family experience. Understanding this, using design



to *create/employ appealing physical binders for spontaneous group interaction*, employing passive and interactive physical binders, seemed to hold the largest potential for improving home happiness.

Furthermore, positive relational messages (i.e. those that convey pleasant connotations of givers to receivers) could be influential in encouraging family members to interact with home happiness designs. For example, by locating the most important needs for home happiness from a sample of homes, self-love and reciprocal love for instance, it is advantageous for designs to support related activities (i.e. pursuing of interests, family time) for these to encourage interaction and uptake. In less happy homes, more important needs may be security and consistency, in which case emerging designs should advertise activities for these needs. Furthermore, as previously suggested, it is possible for positive family moments to satisfy lower (i.e. security) as well as higher needs (i.e. love) for home happiness. Understanding this, a home happiness design that facilitates positive family experiences could support several needs concurrently. Although the enticement to engage with a home happiness design might initially come from a positive relational message offering safety, *emotional binders for engagement* (i.e. playing) and *meaning* (i.e. giving) could simultaneously emerge from this—for example through a service design that facilitates socialising with one's neighbours, increasing one's sense of *security* in the neighbourhood while fulfilling the need for *companionship*. Additionally, it is noteworthy that everyone will have unique ways of satisfying home happiness needs, such as security (discussed in Chapter 4). Given this, it is also necessary to employ personas (see Section 2.4.2.1) that reflect sample households to offer guidance on how relevant family types (i.e. young, middle-aged, old, with or without children) currently fulfil home happiness needs to anticipate their interaction with design interventions—enabling the construction and/or employment of appropriate physical binder(s). Table 5.12 summarises overall Study 2 findings and Table 5.13 illustrates the resulting recommended home happiness design strategy for unhappy homes.

Table 5.12 – Summary of Study 2 Findings

|   |   |   |  |   |
|---|---|---|--|---|
| Positive family Experience type                 | Spontaneous   |   | Routine  | Planned   |
| Description                                     | Unplanned spontaneous positive family experiences motivated by physical binder(s) that exhibit positive relational messages                         |   | Positive family experiences that are part of the routine and are initiated by naturally being together | Positive family experiences that begin by planning time together—synchronised rest periods      |
| Physically enacted characteristics              | Physical binder   | Emotional binder  | Together   | Synchronised rest periods   |
| Description                                     | An object and/or environment that facilitates a positive family interaction/emotional binder and enables family members to feel 'socially relaxed'. | An inclusive activity that occurs during a positive family experience, supported by physical binder(s) and facilitates feeling 'supported'. | The family is physically together and this enables feelings of 'togetherness'.                         | The family make time to be together, which allows them to feel as though 'time doesn't matter'. |
| Sub-types of physically enacted characteristics | Interactive (e.g. board game)   | Lower   | Pleasure (e.g. relaxing)   |   |
|   | Passive (e.g. couch)  | Higher  | Engagement (e.g. cooking)  |   |
|   |   |   | Meaning (e.g. gift making)   |   |
| Emotionally felt characteristics                | Socially relaxed  | Supported   | Togetherness   | Time doesn't matter   |
| Description                                     | Feeling socially relaxed from the presence of 'physical binders' (e.g. comfortable seating).  | Feeling supported by engaging in 'emotional binders' (e.g. talking and resting).  | Feeling a sense of togetherness by being physically 'together' with family.                            | Feeling as though time doesn't matter because family members have 'synchronised rest periods'.  |
| Sub-types of emotionally felt characteristics   |   | Physically (e.g. feeling relaxed)   | Mentally (e.g. feeling loved)  |   |

Table 5.13 – Recommended Design Direction for Supporting Happiness in Unhappy Homes

|   |                     |                 |                              |                     |
|---|---------------------|-----------------|------------------------------|---------------------|
| Positive family Experience type to support                | Spontaneous         |                 |                              |                     |
| Physically enacted characteristics in order of occurrence | I. Physical binder  | 2. Together     | 3. Synchronised rest periods | 4. Emotional binder |
| Sub-types to include                                      | Passive             |                 |                              | Lower               |
|   | Interactive         |                 |                              | Higher              |
| Emotionally felt characteristics in order of occurrence   | I. Socially relaxed | 2. Togetherness | 3. Time doesn't matter       | 4. Supported        |
| Sub-types to encourage                                    |                     |                 | Physical                     |                     |
|   |                     |                 | Mental                       |                     |

Collectively, these findings, with the utilisation of Seligman’s authentic happiness theory (see Section 2.1) and Maslow’s Hierarchy of Needs (see Figure 2.2), led to the conceptualisation of the Home Happiness Theory, its key points being:

- All positive family experiences are composed of four physically enacted components, *physical binder(s)*, *emotional binder(s)*, *together*, and *synchronised rest periods* (see Section 5.5.1.4), and physical binders support emotional binders (see Section 5.5.1.5).
- Physical binders can be *passive* and *interactive* (see Section 5.5.1.6), and positive family experiences that contain both are more likely to facilitate home happiness in unhappy homes.
- Emotional binders can include activities for *happiness as pleasure, engagement, and meaning*—referred to as *emotional binders for pleasure, engagement, and meaning*

(see Section 5.5.1.6)—and positive family experiences that include all three, by incorporating *interactive* physical binders, can encourage happier homes.

## 5.6 Conclusions

Overall, Study 2 workshops successfully created the right social context for participants to emotionally reflect and share their personal insights about positive family experiences, such as what made these occasions memorable, important, and how they were facilitated.

### *Effectiveness of Workshop Activities*

The resulting workshops enabled conceptualisation of different positive family experiences types and how they are created. The image awareness exercise engaged participants in the visual aspects of their homes and its impact on their happiness prior to the session. Sharing these results during Activity 1 afforded relatedness among participants and a supportive environment for volunteering thoughts during workshop sessions. These reflections illustrated significant home artefacts representing *connections, roots, aspirations* and *history* in one's life, and how pleasant family moments led to their construction. Activity 2 (spontaneous art making) then allowed participants to practice with materials while visually eliciting what home meant to them. Through this Activity 1 and 2, sensitised participants to significant home imagery, providing appropriate preparation to visualise positive family experiences in Activity 3. Conducting these activities in silence also encouraged concentration on tasks, minimising influence from others. This resulted in all artworks necessitating accompanying participant comments to clarify meaning, which reduced risk of personal biases influencing findings. Furthermore, as workshops had a positive focus—happy family moments—related activities reaffirmed home happiness in the participants' lives and created a secure context to indirectly explore more negative themes, including barriers to family time.

Semi-structured interviews encouraged greater participant reflection about their artworks' significance. They enabled additional time for participants to reflect on outcomes of workshop activities, questions to be tailored to these responses and provided a more private space for honest feedback. Through this, several promising results arose, such as

characteristics of positive family experiences, divided into those that were *physically enacted* or *emotionally felt*.

### ***Characteristics of Positive Family Experiences – Physically Enacted and Emotionally Felt***

Emotionally felt qualities of positive family moments include *supported*, *time doesn't matter*, *socially relaxed*, *togetherness* and *routine/ritual*, and physically enacted characteristics consist of *together*, *synchronised rest periods*, *physical binder* and *emotional binder* (see Figure 5.26). Physical binders refer to an object or environment that facilitates group interaction, such as a living room, which physically binds the family members to the experience. Emotional binders illustrate an inclusive activity, such as playing together, which emotionally binds individuals to the family moment.

### ***Relationships Between Physically Enacted and Emotionally Felt Characteristics of Positive Family Experiences***

Moreover, certain *physically enacted characteristics* could enable specific *emotional felt* qualities leading to positive family experiences; *physical binders* seem to create a *socially relaxed* atmosphere; *emotional binders* allow individuals to feel *supported*; *synchronised rest periods* enable participants to feel that *time doesn't matter*; being physically *together* encourages the family to experience emotional *togetherness* (see Figure 5.26). Furthermore, in unhappy homes, supporting positive family experiences through *emotional binders* for both physiological and psychological needs was theorised to be significant in strengthening weak or neglected relationships. Additionally, it was discovered that the emotional enacted characteristic, *routine/ritual*, are not essential to create a positive family experience but an indication of the success of that moment in enhancing home happiness of all those involved and the ease in which it could be recreated.

### ***Types of Physical Binders and Emotionally Binders***

Furthermore, physical binders were found to be split into those that were *interactive* and those that were *passive* (see Table 5.10). A *passive physical binder* (i.e. comfortable communal space) is required for every positive family moment in the home but additional *interactive physical binders* (i.e. food) could enhance or prolong the experience.

Similarly, emotional binders can be segregated into those that supported psychological needs (i.e. higher level) and those that satisfy physiological needs (i.e. lower level) (see Table 5.10). Emotional binders can also be divided into those for *pleasure* (i.e. lower level), *engagement* and *meaning* (i.e. higher level) with corresponding physical binders for each (see Table 5.11). There are no exact physical binders for each grouping as those that directly appear to correlate with *emotional binders for pleasure* could also support those for *engagement* and *meaning*, and vice versa. Additionally, it seems more likely that an *interactive* physical binder could support *higher* emotional binders in unhappy home scenarios, encouraging communication amongst inhabitants. It was also found that biological needs may need to be met initially during positive family experiences for unhappy homes through *emotional binder for pleasure* to encourage *higher level emotional binders*.

### ***Satisfaction of Long-term Home Happiness through Positive Family Experiences***

Accordingly, positive family experiences that contained *emotional binders for pleasure*, *engagement* and *meaning* seem to provide a means of attaining long-term happiness. Emotional binders for pleasure support *The Pleasant Life* by involving activities for pleasure (i.e. relaxing); emotional binders for engagement facilitate *The Good Life* by including actions for engagement (i.e. developing skills), and emotional binders for meaning encourage *The Meaningful Life* by consisting of interactions for meaning (i.e. using these for a higher purpose), collectively resulting in Seligman's 'authentic happiness'.

### ***Types of Positive Family Experiences – Spontaneous, Routine and Planned***

All pleasant family experiences from the sample could also be divided into those that were *routine*, *planned* or *spontaneous*. Routine experiences begin with the family being *together* and required minimal preparation (see Figure 5.28). Planned family experiences require prior direct organisation, beginning with *synchronised rest periods* (see Figure 5.29). Spontaneous positive family experiences are instigated by the presence of enticing *physical binders* that draws family members *together* (see Figure 5.27).

### ***The Home Happiness Theory and Implications for Designing for Home Happiness***

Findings were consolidated to create the Home Happiness Theory, which established three approaches for home happiness design interventions:

1. Enable family members to *plan time together*, supplying appropriate physical binders to encourage emotional binders for pleasure, engagement and meaning.
2. Expand and *enhance a routine time* when the family is naturally together, using physical binders to facilitate emotional binders.
3. *Create/employ appealing physical binders for spontaneous positive group interactions* that support emotional binders for pleasure, engagement and meaning.

Number 3., motivating spontaneous family pleasant experiences, offers a potential means of improving unhappy homes; if beneficial to the happiness of everyone involved and easily repeatable, they could be incorporated into the household's routine. They are also not reliant on the inhabitants making time for each other or already being physically together. Furthermore, happier homes could still benefit from this approach.

Lastly, findings indicated that resulting design concepts should make their intended use or happiness benefits transparent to prospective users by conveying positive relational messages for relevant happiness needs. Moreover, in unhappy homes it appears essential to advance interactions for basic needs (i.e. relaxing) to psychological (i.e. playing) to build social relationships that may be lacking. *Interactive physical binders* (i.e. games) seem necessary to encourage these exchanges and should be part of home happiness design interventions. For these reasons, design concepts that *create/employ appealing physical binders for spontaneous positive group interactions* using both *passive* and *interactive* physical binders are considered the most promising strategy for improving home happiness. It was therefore necessary to complete a further investigation into the viability of this approach by implementing it in a design context through a series of design tools to conceptualise home happiness designs.

## **5.7 Next Steps**

Study 2 confirmed art therapy techniques as effective in eliciting emotionally rich outcomes about home happiness generated from positive family experiences. Utilising these methods, the conceptualisation of varying positive family experiences types and characteristics were afforded, and the Home Happiness Theory was drawn. Subsequently, the development of initial design tools and a process for 'designing for home happiness' was commenced using these findings, discussed in Chapter 6.

## 6 Phase 3, Part 1: Developing the Process and Tools for Designing for Home Happiness

Chapter 6 explains how the Home Happiness Theory, resulting from Study 2 findings, led to the creation of the initial Designing for Happy Homes Framework, including the Happy Home Design Tools and process. In detail, it describes how the Home Happiness Theory was further verified and used to prototype a process and design tools for ‘designing for home happiness’ to be launched in subsequent Main Studies.

### 6.1 Introduction

Study 2 workshops enabled the identification of the core characteristics and types of positive family experience, and how these moments are created (see Table 5.12). This resulted in three conceptual models for positive family experience types (see Figures 5.27–5.29) that could inspire happy home design tools, namely the model for *spontaneous* experiences (see Figure 5.27) in the case of unhappy homes. Furthermore, service design tools were previously identified as applicable for conceiving design solutions that acknowledged the home as a complex system (see Sub-Section 2.4.2.1). Part 1 of Phase 3 therefore aimed to develop initial design tools and accompanying process using Study 2 findings to later implement in a design context with service design methods, answering the first part of the fourth objective; ‘to *develop...* ‘designing for home happiness’ design tools and framework for use with service design approaches.’

To improve validity of the emerging Home Happiness Theory, a short-anonymised questionnaire—three questions in total—was constructed. Its details are discussed in subsequent Section 6.2. It allowed for further verification of the Home Happiness Theory, which then facilitated a deeper investigation into how it could be employed for ‘designing for home happiness’ with greater reliability. In its original form, the Home Happiness Theory, specifically the model for spontaneous positive family experiences (see Figure 5.27), did not offer designers specific strategies for ‘designing for home happiness’—how could designers support physical binders that led to spontaneous positive family experiences if these could include many home objects and/or environments, dependant on individuals’ preferences and circumstances? It was therefore necessary to devise relevant design tools and design process utilising this theory. The following sections report on the translation of the Home Happiness Theory into corresponding design language.



## 6.2 Methodology

The research methodology approach for Phase 3 Part 1 is the same as that described in Chapter 3 (see Section 3.6.5). Relevant data collection methods and analysis techniques are listed in Table 6.1.

*Table 6.1 – Phase 3 Part 1 Data Collection Methods and Analysis Techniques*

| Data Collection Method | Analysis Techniques   |
|------------------------|---|
| Questionnaire          | Template analysis technique                                     |
| Literature review      | Analytical & reflective memos                                   |
| Documentary analysis   | Persona development process (Cooper, Reinmann and Cronin, 2007) |

The questionnaire consisted of two open and one closed that related directly to findings of Study 2, constructed to carefully elicit responses that could either validate or challenge these results. Questions were kept short and simple to ease understanding, encouraging relevant responses. Specifically, they were used to confirm the composition and sequence of different positive family experience (i.e. spontaneous, routine, planned) elements (i.e. physical and emotional binders). For example, Question (1) (open) asked for a description of a related experience with five sub-prompter questions to stimulate relevant and detailed responses (i.e. ‘What were you doing?’); Question (2) (closed) asked for this to be categorised within three possibilities (i.e. spontaneous, routine or planned) and Question (3) (open) asked participants to explain their choice—to add further clarity to previous responses (see Appendix O). This was advertised for approximately a month through Twitter (publicly using the hashtag ‘Share Your Happy Home Experiences’) and Facebook (semi-privately through the researcher’s contacts and their acquaintances) to extend the data sampling to other social groups. 27 responses collected confirmed the format of the three positive family experience models; positive family experience descriptions correlated to specific family moments (i.e. planned, spontaneous, routine) and related components occurred in sequences discussed in Section 5.5.1.7. See Appendix P for sample responses and analysis. Section 6.3 describes how additional data collection methods were used, including results of applying related analysis techniques.

### 6.3 The Design Approach

For the purposes of ‘designing for home happiness’ using the Home Happiness Theory, workshops presented a viable approach. As well as providing a means of observing several designers’ behaviour with the emerging design tools and process in real-time, they supplied a design scenario in which designers could be sensitised to relevant home happiness concepts through an oral presentation by the facilitator. Moreover, group sharing of positive home experiences could be conducted beforehand, maximising designers’ engagement with subsequent design tasks. Lastly, design outcomes could be presented in a discursive fashion at the session’s end, accommodating immediate feedback from multiple design experts.

#### 6.3.1 Developing the Design Tools and Process

To design for home happiness, a subjective experience, it was necessary to create design tools and a process that supported ‘empathic design’ (Koskinen and Battarbee, 2003), such that designers could develop an in-depth understanding of relevant prospective user moments by relating these to their own experiences. Kouprie and Visser’s (2009) present an empathy framework that describes the process of empathy in design practice, divided into four phases: (1) *discovery*, the designer enters the user’s world and achieves a *willingness* to explore their experiences; (2) *immersion*, the designer openly immerses themselves in the user’s context; (3) *connection*, the designer links their memories with the users’ to understand their experiences; (4) *detachment*, the designer removes themselves from the user’s experiences to begin designing with increased knowledge and appreciation (ibid). Consequently, the design tools and process needed to be developed with these stages in mind. For example, to facilitate the *discovery* phase a presentation of the Home Happiness Theory and background concepts, including real-life examples, was included to introduce the workshop, and generate interest and enthusiasm from designers to ‘design for home happiness’.

Following this, additional methods were needed to facilitate immersion and connection phases, contextualising the theory and user experiences to participants’ personal moments—discussed later in Sections 6.3.1.1–6.3.1.2. Specifically, Home Happiness Design Tools (HHDT), presenting the Home Happiness Theory in a more palatable manner for designers, were required to support the detachment stage—explained in Section 6.3.1.3.

Lastly, the literature review previously revealed several suitable service design tools that could be used as additional complementary tools in the conceptualisation of happy home designs: persona, service safari, stakeholder map, offerings map and customer journey map (see Sub-Section 2.4.2.1). Subsequent sub-sections describe the development and rationale behind the initial process and design tools created for what eventually became the Designing for Happy Homes Framework.

#### **6.3.1.1 Setting the Scene and Facilitating Theory Understanding**

To support *immersion* and *connection* during the workshop, the service design method Service Safari, where a service is experienced first-hand and reflections recorded—the home in this case—was used to create an applicable preparatory exercise for the workshop. This entailed thinking of a positive home experience one had with others while answering the following questions:

- What were you doing?
- How did you feel physically (i.e. warm, well-fed) and emotionally (i.e. supported)?
- What objects and/or environments facilitated and/or enhanced this experience (i.e. food, comfortable seating)?
- Would you consider this scenario planned, spontaneous or routine?

This was required to encourage designers to reflect on and identify significant aspects of positive home experiences before the session, enabling them to relate their own experiences to those of potential users. Furthermore, it was needed to encourage positive affect in participants by contemplating pleasant home moments—as evidenced by Study 2 findings (see Section 5.5.1.1)—shown to improve creative problem solving (Ashby, Isen and Turken, 1999) and divergent thinking (Vosburg, 1998).

#### **6.3.1.2 Supporting User Empathy and Developing the Persona**

Including a persona in the design tools was also necessary to facilitate *immersion* and *connection*. It was identified as a tool that could supply guidelines of plausible future users, providing focus for design solutions and something designers could relate their own experiences to—having been sensitised to these from the preparatory exercise. As previously

discussed (see Sub-Section 2.4.2.1), personas can offer an archetype of multiple user characteristics in one or more fictional characters, derived from real customer personalities and actions (Long, 2009; Massanari, 2010; Marshall *et al.*, 2015). Accordingly, they can support user empathy (Miaskiewicz and Kozar, 2011), activate associated memories and encourage greater ideational creativity (So and Joo, 2017). Notably, due to time constraints and resources, this research created a *proto-persona* (i.e. based on secondary research and reflection) as opposed to a *marketing* or *design persona* (i.e. based on specific field research) (Ilama, 2015), using previous data from Study 1 semi-structured interviews (see Section 4.5.1). Although not ideal, having a proto-persona to guide design directions is preferred to having none at all (*ibid*). Furthermore, the persona's main purpose was to create a focus point to allow emerging design tools and process to be tested for their usability by designers as opposed to creating fit-for-purpose designs ready for public consumption. For this same rationale, only one persona was created to allow for easy cross comparisons of results. Moreover, it was considered more valuable to create an unhappy family persona as the *Designing for Home Happiness Workshops* targeted this group. Consequently, the persona emphasised conditions for home unhappiness using variables collected from Study 1 data. The persona development process detailed by Cooper, Reinmann and Cronin (2007, pp. 97–98) provided some guidance for this. The steps are summarised as follows:

1. Location of behavioural variables
2. Map sample individuals to variables
3. Locate important behaviour motifs
4. Incorporate significant qualities with relevant goals
5. Analyse for redundancy and comprehensiveness
6. Extend explanation of characteristics and actions
7. Create persona type(s)

### ***1. Location of behavioural variables***

The first step consisted of noting the most prominent activities under each home happiness need, previously identify in Study 1 findings (see Table 4.6), family time together for example. Different ways participants achieved these (behaviour variables) were then noted by reviewing Study 1 transcriptions (i.e. where individuals described their domestic routines). Examples included pursuing interests alone or with others.

## *2. Map sample individuals to variables*

These behavioural variables were then drawn out on different rating scales with an extreme of how home happiness activities were achieved at each end. Subsequently, labels for each Study 1 participant were made for the scale, placed in relation to how they undertook the activity. Different Study 1 participant interview accounts were compared throughout this process to ensure each label was positioned relative to others (see Appendix R for example).

## *3. Locate important behaviour motifs*

Engaging in this, the researcher became further sensitised to the data and began to spot behaviour motifs that had a direct impact on each happiness activity. Hand written reflective memos were then employed to explore and test these behaviour motifs against different household scenarios, described in Study 1 transcriptions (see Appendix S). For example, a *surplus of time* allowed for happy behaviours (i.e. socialising) but a *lack of time* had the reverse effect. This informed the final key variables list:

- Free time (high versus low)
- Disposable income (high versus low)
- Childcare need (high versus low)
- Working hours (high versus low)
- Extended family support (high versus low)
- Work schedules (same versus different)

## *4. Incorporate significant qualities with relevant goals*

These variables were then used to identify relevant goals that could lead to their extremes. For example, sensitising questions were asked of each variable such as ‘why would a family have little free time or low disposable income?’ and hypothesised answers were created by generating additional memos from related Study 1 interviews accounts (See Appendix T).

## *5. Analyse for redundancy and comprehensiveness*

Notably, Study 1 home accounts were from relatively happy homes. It is also important for a persona to ‘reflect patterns in the research’ (Ilama, 2018). Therefore, answers to causes of home unhappiness were generally sought by examining how a variable supported home

happiness to theorise how it could not be facilitated and the possible motivations or context around this. For example, one household lived around the corner from the grandmother (high extended family support), who looked at their children, allowing the parents to engage in evening classes (high free time).

#### *6. Extend explanation of characteristics and actions*

Further elaborations of a fictional unhappy family's motivations/values and context were then drawn up using the same approach. Drafts of persona content were subsequently shared informally for feedback amongst colleagues and contacts using the following criteria (ibid):

- Persona is realistic
- It illustrates applicable design problems
- It enables understandings of context, actions, values, needs, irritations and motivations

However, the full evaluation of the persona was conducted through an examination of results from the Main Study Pilot, discussed in forthcoming Section 7.4.1.

#### *7. Create persona type(s)*

Figure 6.1 illustrates the initial persona developed from this process.

## THE PRAGMATIC PROVIDERS – The End Justifies the Means

*“Our lives revolve around laundry... laundry and food making... and clearing it up again! We could do with some more quality time together.”*



### BACKGROUND

Sally and Harry are married with two young children. They live in a three-bedroom house in Surrey and commute into central London for work during the week. Due to high house prices in the surrounding area they were unable to purchase a property closer to their employment. However, they were happy to accept a slightly higher mortgage on their first home to be located in a safe area, relatively close to good schools for their children. As a result, they both work full-time moderate to long hours to provide a decent quality of life for the family in the future, spending little time in the home on weekdays. During the week they come home late and spend their remaining free time with their children after collecting them from childcare. Once the children are asleep, they tend to spend half an hour to an hour with each other in front of the television before going to bed.

Generally, housework is left for the weekend. At the weekend, Harry and Sally's domestic routines are also fairly regimented in order to meet the essential needs of their children and the home. The weekend is often taken up with left-over housework from during the week, and the remaining time is used for food preparation and general caring for the children. Being mindful of their finances, they spend much of their leisure time at home.

Sally (29) works as a customer services officer in central West London and Harry (31) is employed as an IT support engineer in Balham.

### MOTIVATIONS/VALUES:

- **Social harmony** – Time together is limited, so Sally and Harry will try to avoid disputes with each other and their children when possible. Additionally, as they are not living close to friends and family, they rely on each other a lot for support.
- **Teamwork** – Harry and Sally have a regular routine, and both value and appreciate each other's efforts in running the home.
- **Time efficiency** – Sally and Harry will reduce time spent on other endeavours when possible to increase family time, such as preparing quick meals and leaving laundry for the weekend.
- **Saving money** – Sally and Harry are very conscious about saving money on bills, groceries and other general expenses. They tend not to eat out and generally cook from home. However, sometimes they will treat themselves to a takeout when the children have gone to bed.
- **Quality family time** – During the week, Sally and Harry prioritise time with their children and each other for the remainder of the evenings.
- **Quiet time** – Sally and Harry really treasure the quiet time they have with each other after the children have gone to bed. This is usually spent watching TV as it's something they can both do together that is easily accessible and not too physically or mentally demanding.

### PAIN POINTS:

- **Surprise and needless expenses** – Sally and Harry are irritated when food is wasted, shopping deals are missed due to rushing and if electrical items or the heating is left on unnecessarily. Broken appliances and household repairs can also cause stress. To save time, they will hire someone to do the job if it is within budget. If not, they will research ways of fixing the problem themselves if the issue is urgent.
- **Household chores at the weekend** – Sally and Harry rarely have enough time to stay on top of household duties during the week. However, carrying these out at the weekend means there is limited family time.
- **Lack of time generally** – Harry and Sally generally feel that they do not have enough time for their children, themselves and with each other. Their preoccupation with ensuring the basic needs of the children and home are met can lead to an absence of quality family moments, which can occasionally lead to tension.
- **Limited money** – Sally and Harry, being early in their careers with a new mortgage and two young children, do not have much disposable income for home alterations, expensive outings with each other and their children. This can cause feelings of frustration.
- **Strict routine** – With their busy schedules, there is not much room for deviation outside of the everyday routine. Certain activities like the children's bedtime preparations and the household chores can become monotonous.
- **Feelings of isolation** – Harry and Sally cannot visit relatives or friends often as they do not live locally. Additionally, due to their busy schedules, they have not had the opportunity to make friends with anyone living close by.

### OPPORTUNITIES FOR DESIGN:

Taking inspiration from Maslow's (1943) hierarchy of needs, design propositions could support happy home experiences by considering how essential home activities (i.e. cleaning, preparing food) could facilitate nonessential home actions (i.e. time with family or friends) simultaneously and vice versa.

This may include reconceptualising physical aspects of the home environment to motivate these new home experiences and/or introducing or creating new environments and/or objects for the home.

Furthermore, potential designs could include ways of capturing resulting positive moments in order to encourage future similar instances and make these pleasant interactions part of the home routine.

### KEY VARIABLES

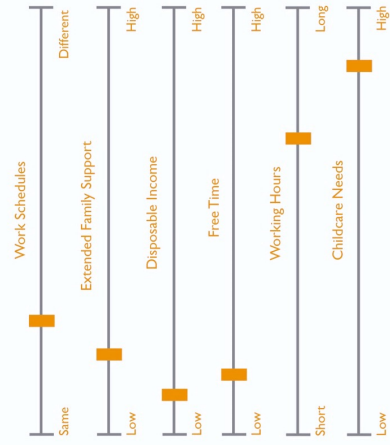


Figure 6.1 – Initial Persona Developed During Phase 3, Part I

### 6.3.1.3 Creating the Home Happiness Design Tools

The HHDT were created to support the *detachment* phase. Design methods have two distinct features: to ‘formalize procedures for design’ and ‘externalize design thinking’ (Cross, 2008), such as presenting techniques for researching and exploring relevant themes, and recording and organising results in a usable manner. Correspondingly, the HHDT needed to *formalise* design processes from the Home Happiness Theory for ‘designing for home happiness’ and *externalise design reasoning*. *Templates* were identified as those that could illustrate and support specific design ‘patterns’, facilitating a more concentrated design process (Goldenberg *et al.*, 1999). The ‘patterns’ that informed the activities for each template were derived from the Home Happiness Theory—specifically, the components of spontaneous family experiences (i.e. *physical binder*, *emotional binder*, *togetherness*, *synchronised rest periods*) and the sequence of their occurrence (see Figure 5.27). Furthermore, designers are more receptive to imagery based explanations and design tools that are visual, containing snippets of relevant information (Lofthouse, 2006). Consequently, the initial HHDT necessarily consisted of *templates* that were graphically dominant with minimal text and accompanying instructional and informative materials that were predominantly pictorial.

Moreover, as the components of the Home Happiness Theory were quite abstract (i.e. physical binders), related design tool exercises (i.e. identifying applicable physical binders) required additional techniques to improve their creative outputs. Considering this, design tool activities were curated to emphasise two concepts that significantly assist creativity: *knowledge activation* and *concept combination* (Scott, Leritz and Mumford, 2004). Knowledge creates the foundation for subsequent creativity activities (Mumford *et al.*, 1991), the activation of which can enable better creative problem-based solutions (Ma, 2006). In this case, *knowledge activation* was encouraged through exercises for associative thinking, such as *brainstorming*—and the preparatory exercise (see Sub-Section 6.3.1.1), which sensitised participants to their home experiences. *Brainstorming* is an individual or group creative method for generating numerous ideas in rapid succession (Hargadon and Sutton, 1996; Isaksen, 1998; Wilson, 2013). It was employed as a group method in this instance. Although previous research has asserted that individual work facilitates more creative ideas than cooperative teams (Diehl and Stroebe, 1987; Mullen, Johnson and Salas, 1991; Furnham, 2000), this neglected how interactive groups can benefit concept development; groups can



create more marketable design solutions as collective brainstorming enables wider discussion of issues while compiling multiple skills and viewpoints (McMahon *et al.*, 2016).

*Concept combination*, the capability to collaborate two or more ideas to establish novel ones (Gill and Dubé, 2007), can be effective creating unique solutions; it facilitates ideations that are not closely linked to ‘parent’ concepts (Smith and Ward, 2012). Known formally as the creative method *Synectics* within design (Cross, 2008), this was encouraged through prompting questions on related design tools and an accompanying visual illustrating potential home and happiness concepts for combining. Lastly, more ‘rational method’ approaches were also necessary to ensure that key components of the theory had been incorporated into solutions; *rational methods* are design techniques for compiling and reminding of important aspects to consider during the design journey (ibid). In this case, related design tool activities were used to prompt, organise and document important results during the design process. Consequently, *concept combination* and *knowledge activation* strategies (i.e. brain storming) were used to support the *divergent* phase of the creative process—where multiple concepts are formed and unrelated ideas are connected (Ritter, van Baaren and Dijksterhuis, 2012). ‘Rational method’ activities facilitated the *convergent* stage—when emerging creative ideas are examined and evaluated for their usability (Rietzschel, Nijstad and Stroebe, 2010). Creative concepts should be unique and accessible (Mumford, 2003); including divergent exercises encouraged originality and convergent tactics supported feasibility in resulting outcomes. There were seven HHDT in total, summarised in Table 6.2.

Table 6.2 – Home Happiness Design Tools, Version 1, Developed During Phase 3, Part I

| Design Tool | Description   | Accompanying Materials  |
|-------------|---|---|
| 1           | Reimagining Home Experiences                                      | <ul style="list-style-type: none"> <li>• Essential and Nonessential Home Activities Sheet (ENHAS)</li> </ul>        |
| 2           | Exploring Emotional Binders for Pleasure, Engagement and Meaning  | <ul style="list-style-type: none"> <li>• 25 Common Positive Emotions Sheet</li> <li>• 24 Strengths Sheet</li> </ul> |
| 3           | Identifying Physical Binders for Pleasure, Engagement and Meaning |   |
| 4           | Initiating Group Interaction Through Design                       |   |
| 5           | Prolonging Engagement Through Flow                                |   |

|   |                                   |
|---|-----------------------------------|
| 6 | Recording Meaningful Moments      |
| 7 | Designing for Home Life Happiness |

Each contained one or two questions to encourage relevant ideation around the positive family experience components they focused on. The following paragraphs will elaborate on these tools, related activities and supplementary material where relevant.

*Design Tool 1: Reimagining Home Experiences*

To begin ‘designing for home happiness’, it was first necessary to conceptualise suitable spontaneous family experiences that could support home happiness and be facilitated through design. Design Tool 1 was developed with this purpose in mind, containing two parts. It was created by considering the components of spontaneous family experiences and how these scenarios could be encouraged. For example, these moments start with the physical binder (object/environment facilitating moment) (see Figure 5.27, p. 194) and support emotional binders (happiness activities within the experience). Physical binders cannot be identified before exploring possible emotional binders initially as they were dependant on individual preferences and situations. Furthermore, certain emotional binders can satisfy lower home happiness/basic needs and higher home happiness/psychological needs simultaneously (see Sub-Section 5.5.1.6) and are therefore more promising for improving happiness in unhappy homes (see Sub-Section 5.5.1.8). Additional consideration of these concepts indicated that applicable spontaneous positive family experiences could also be thought of as those that satisfied both *essential* and *nonessential* home activities for survival; home actions for basic needs were required for living (essential home activities) but home behaviours for psychological needs, although necessary for happiness, were not needed for existence (nonessential home activities). This reframing of home activities for basic and psychological needs was used in Design Tool 1—and throughout the workshop process—to emphasise how nonessential home activities could easily become neglected during times of stress, and low emotional and monetary resources, creating unhappy homes. Unhappy homes would conceivably focus on essential home activities as these could not be overlooked—or at least not for long periods of time. Hence, spontaneous positive family experiences that supported both actions collectively could encourage happiness in unhappy homes. Consequently, Design Tool 1 (see Figure 6.2), was created to encourage designers to

*brainstorm* how essential and nonessential home activities—for living—could be *combined* to support each other to conceptualise applicable spontaneous happy home experiences.

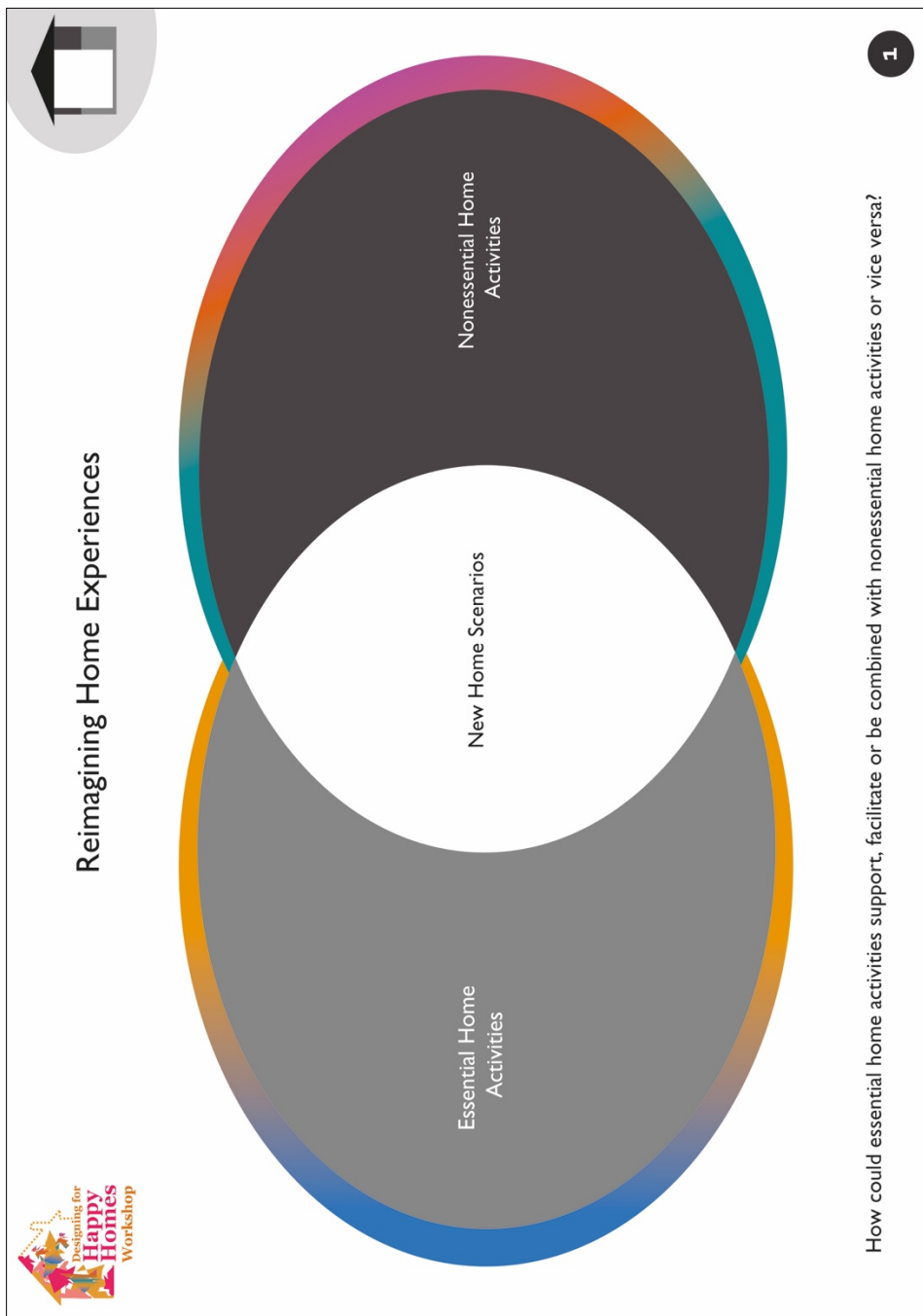


Figure 6.2 – Design Tool 1, Version 1, Developed During Phase 3, Part I

Its template illustrated two overlapping circles to draw attention to concepts that could be *brainstormed* and *combined* to answer the question posed on Design Tool 1. This type of brainstorming resembles Osborn’s (1963) ‘structured brainstorming’; it has a clear facilitator, ground rules and procedures. Alternatively, ‘unstructured brainstorming’ follows the same

process without guidelines or facilitation (ibid), which can limit the quality of emerging ideas; certain individuals may dominate the discussion, deterring quieter participants from contributing and concepts can be criticised as they emerge (Wilson, 2013). ‘Structured brainstorming’ was therefore employed with Design Tool 1 to motivate multiple and creative ideations of spontaneous positive family moments.

To ease the process of deciphering what home activities could be considered essential and nonessential, and to assist concept combination, an accompanying visual was made to supplement Design Tool 1. It illustrated relevant home happiness needs and activities identified in Study 1 (see Chapter 4.5.1.4) against Maslow’s Hierarchy of Needs—creating the Essential and Nonessential Home Activities Sheet (ENHAS) (see Figure 6.3).

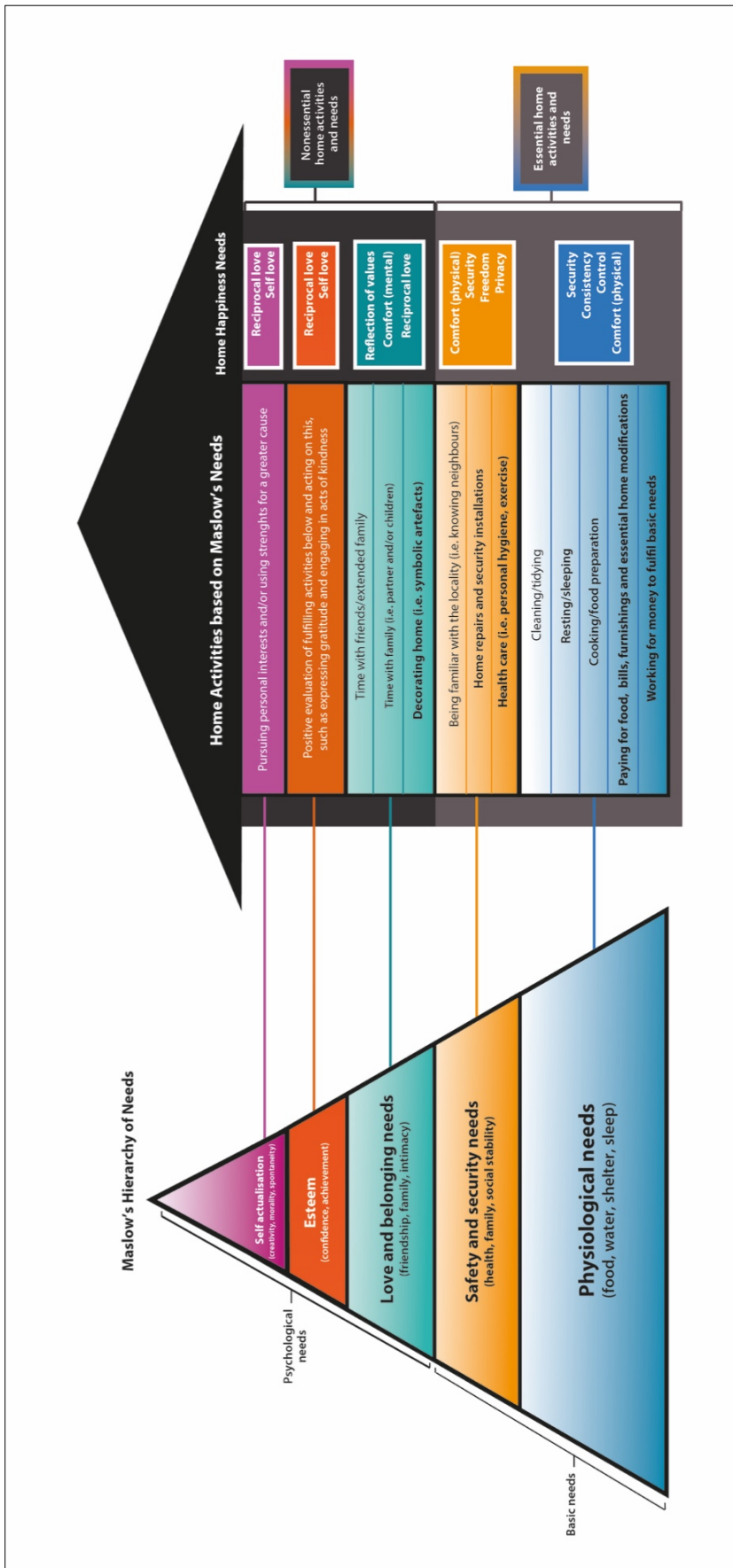


Figure 6.3 – Essential and Nonessential Home Activities Sheet (ENHAS), Version 1, Developed During Phase 3, Part I

Although Maslow's Hierarchy of Needs is widely accepted despite lack of empirical evidence (Wahba and Bridwell, 1976; Soper, Milford and Rosenthal, 1995), it appeared to be complementary to Seligman's concept of 'authentic happiness'—where *happiness as pleasure* generally occurs before *happiness as engagement* and *meaning*—and as well as home happiness needs located in Study 1 (see Section 4.5.1.6). For example, further review of Study 1 data showed that home activities associated with *happiness as pleasure*, such as resting, generally corresponded to those for basic needs at the base of Maslow's pyramid. Furthermore, home actions linked to *happiness as engagement* or *meaning*, playing with family for example, appeared to also satisfy psychological needs, located from the middle to the top of the pyramid. Maslow's pyramid therefore offered a means of further categorising home activities and home happiness needs associated with *happiness as pleasure, engagement* or *meaning*, into those that were *essential* (for basic needs) and *nonessential* (those for psychological needs) for survival. Home activities and home happiness needs organised in relation to Maslow's Needs on the ENHAS (see Figure 6.3) could then be employed to support designers in creating speculative positive family experiences for home happiness using Design Tool 1.

Furthermore, Maslow's (1964, 1970) later Hierarchy of Needs was considered for the ENHAS, including *cognitive* (i.e. pursuit of knowledge and intellectual stimulation) and *aesthetic needs* (to be exposed to pleasing compositions)—above esteem in previous model—and *transcendence* (sense of meaning)—top of original pyramid. However, it was found that Maslow's original pyramid represented a more accurate depiction of motivations behind home activities—within the context of this research at least. For example, home actions that fell under *cognitive* and *aesthetic needs* seemed to be adequately covered by those associated with *love and belonging* (included on original pyramid)—through decorating one's home with imagery of family (aesthetic) or conversing with friends (cognitive) for example. Moreover, home actions for transcendence were included under *self actualisation* (illustrated on original pyramid) as this involved using strengths for the good of the household, such as supporting others. Lastly, it was found that *cognitive needs* could also be satisfied through *self actualisation* home activities by pursuing personal interests or helping others as new knowledge could be acquired in these instances.

Additionally, supplementary activities to increase *happiness as pleasure*—*savouring, mindfulness* and *expressing gratitude* (Seligman, 2002)—were examined for inclusion on

ENHAS. *Savouring* and *mindfulness* were found to be reliant on the motivation and willingness of individuals. These were therefore difficult to directly implement in unhappy households through positive family experiences where multiple social and/or financial issues may exist and were thus omitted from ENHAS. However, *expressing gratitude* could be encouraged through historically thoughtful and caring group interactions (see Sections 4.5.1.3–4) that build *esteem*. This was hence included within nonessential activities, under the need tier for esteem (see Figure 6.3).

To aid comprehension, each tier of Maslow's Needs pyramid, and corresponding home happiness activities and needs were allocated a specific colour. Furthermore, essential and nonessential home activities (for survival) were segregated by different grey tones within the house silhouette image (see Figure 6.3). These colour palettes were used to visually categorise relevant aspects of all design tools so that designers could more readily locate and *combine* relevant concepts.

### ***Design Tool 2: Exploring Emotional Binders for Pleasure, Engagement and Meaning***

Once spontaneous positive family experiences were created using Design Tool 1, their emotional binders needed to be identified and examined to understand how these could be facilitated through design. Design Tool 2 was created towards this aim. Taking a more 'rational method' approach, its template contained columns and descriptions for each emotional binder type (i.e. pleasure, engagement, meaning) to motivate reflection and documentation of how the spontaneous home experiences, conceived using Design Tool 1, facilitated these (see Figure 6.4).

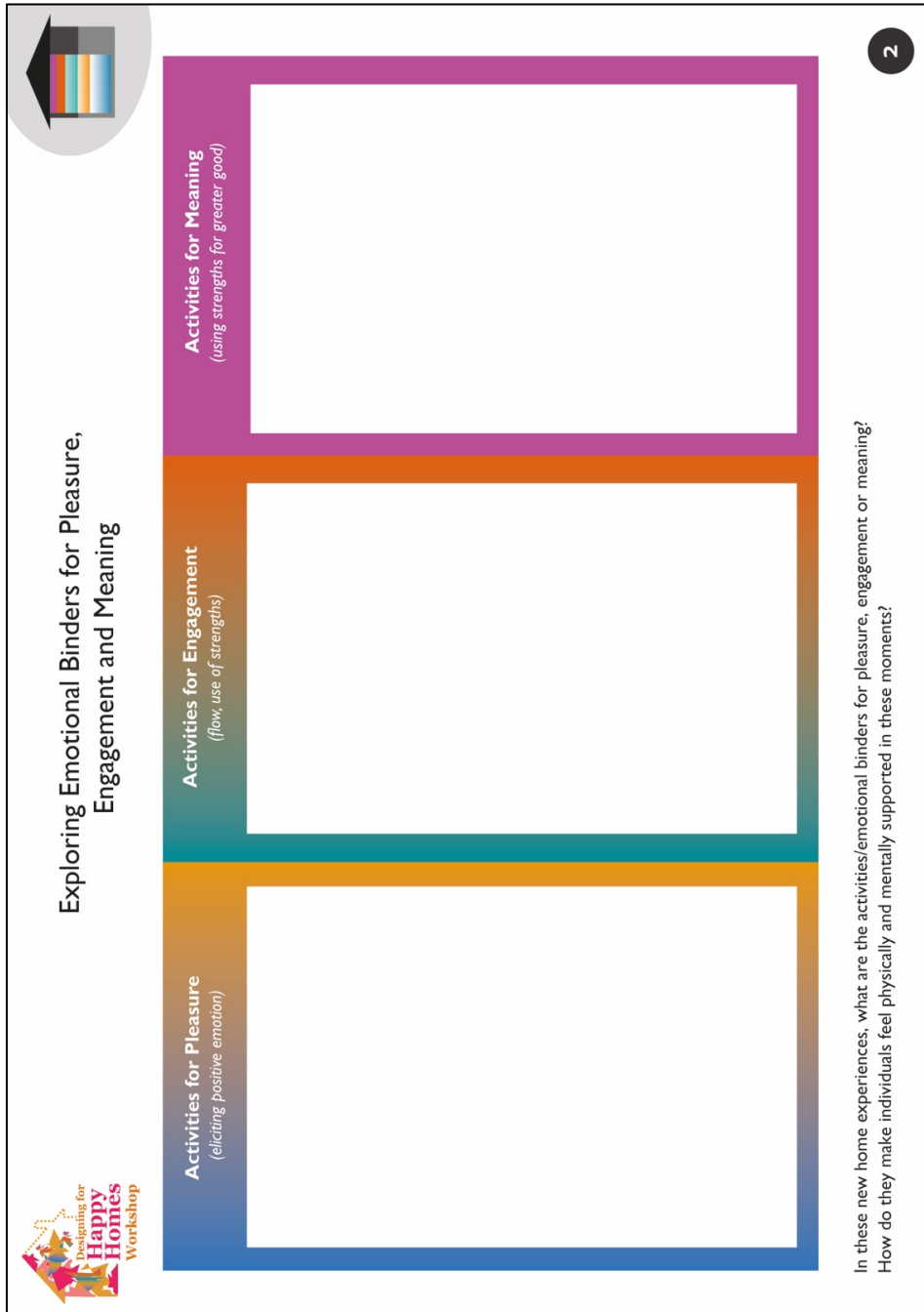


Figure 6.4 – Design Tool 2, Version 1, Developed During Phase 3, Part I

Additionally, columns for emotional binders were labelled ‘activities for pleasure’, ‘activities for engagement’ and ‘activities for meaning’ to enable rapid comprehension while using Design Tool 2 and in subsequent relevant tools. Accordingly, these were coloured in relation to the home activities and needs they supported the most strongly (see Figure 6.4). The first prompting question was aimed at motivating reflection on different emotional binders present in speculative home experiences and the second question was used to encourage



deeper critical thinking about how identified emotional binders were or could facilitate physical and mental support, using results to further develop hypothetical spontaneous home experiences. This process required additional facilitation as it concerned abstract intangible concepts (i.e. emotional binders). Resultantly, two supporting visuals were created: the 25 Common Positive Emotions Sheet, detailing 25 common positive emotions from human and product design interactions with explanations (Desmet, 2012) (see Figure 6.5); and the 24 Strengths Sheet, containing descriptions of 24 strengths that can be developed through engaging activities (Peterson and Seligman, 2004) (see Figure 6.6).

**Common Positive Emotions (Desmet, 2012)**

|   |   |   |  |   |
|---|---|---|--|---|
| <b>Sympathy</b><br>To experience an urge to identify with someone's feelings of misfortune or distress  | <b>Dreaminess</b><br>To enjoy a calm state of introspection and thoughtfulness        | <b>Joy</b><br>To be pleased about [or taking pleasure in] something or some desirable event         | <b>Energised</b><br>To enjoy a high-spirited state of being energised or vitalised                         | <b>Enchantment</b><br>To be captivated by something that is experienced as delight or extraordinary |
| <b>Kindness</b><br>To experience a tendency to protect or contribute to the well-being of someone       | <b>Lust</b><br>To experience a sexual appeal or appetite                              | <b>Amusement</b><br>To enjoy a playful state of humour or entertainment                             | <b>Courage</b><br>To experience mental or moral strength to persevere and withstand danger or difficulties | <b>Fascination</b><br>To experience an urge to explore, investigate, or to understand something     |
| <b>Respect</b><br>To experience to regard someone as worthy, good or valuable                           | <b>Desire</b><br>To experience a strong attraction to enjoy or own something          | <b>Hope</b><br>To experience the belief that something good or wished for can possibly happen       | <b>Pride</b><br>To experience an enjoyable sense of self-worth or achievement                              | <b>Relief</b><br>To enjoy the recent removal of stress or discomfort                                |
| <b>Love</b><br>To experience an urge to be affectionate and care for someone                            | <b>Worship</b><br>To experience an urge to idolise, honour, and be devoted to someone | <b>Anticipation</b><br>To eagerly await an anticipated desirable event that is expected to happen   | <b>Confidence</b><br>To experience faith in oneself or one's abilities to achieve or to act right          | <b>Relaxation</b><br>To enjoy a calm state or being free from mental or physical tension            |
| <b>Admiration</b><br>To experience an urge to prize and estimate someone for their worth or achievement | <b>Euphoria</b><br>To be carried away by an overwhelming experience of intense joy    | <b>Surprise</b><br>To be pleased by something that happened suddenly, and was unexpected or unusual | <b>Inspiration</b><br>To experience a sudden and overwhelming feeling of creative impulse                  | <b>Satisfaction</b><br>To enjoy the recent fulfillment of a need or desire                          |

**What positive emotions might result from these home scenarios and what are the responsible activities for pleasure?**

Figure 6.5 – 25 Common Positive Emotions Sheet Used with Design Tool 2, Version 1, Developed During Phase 3, Part I

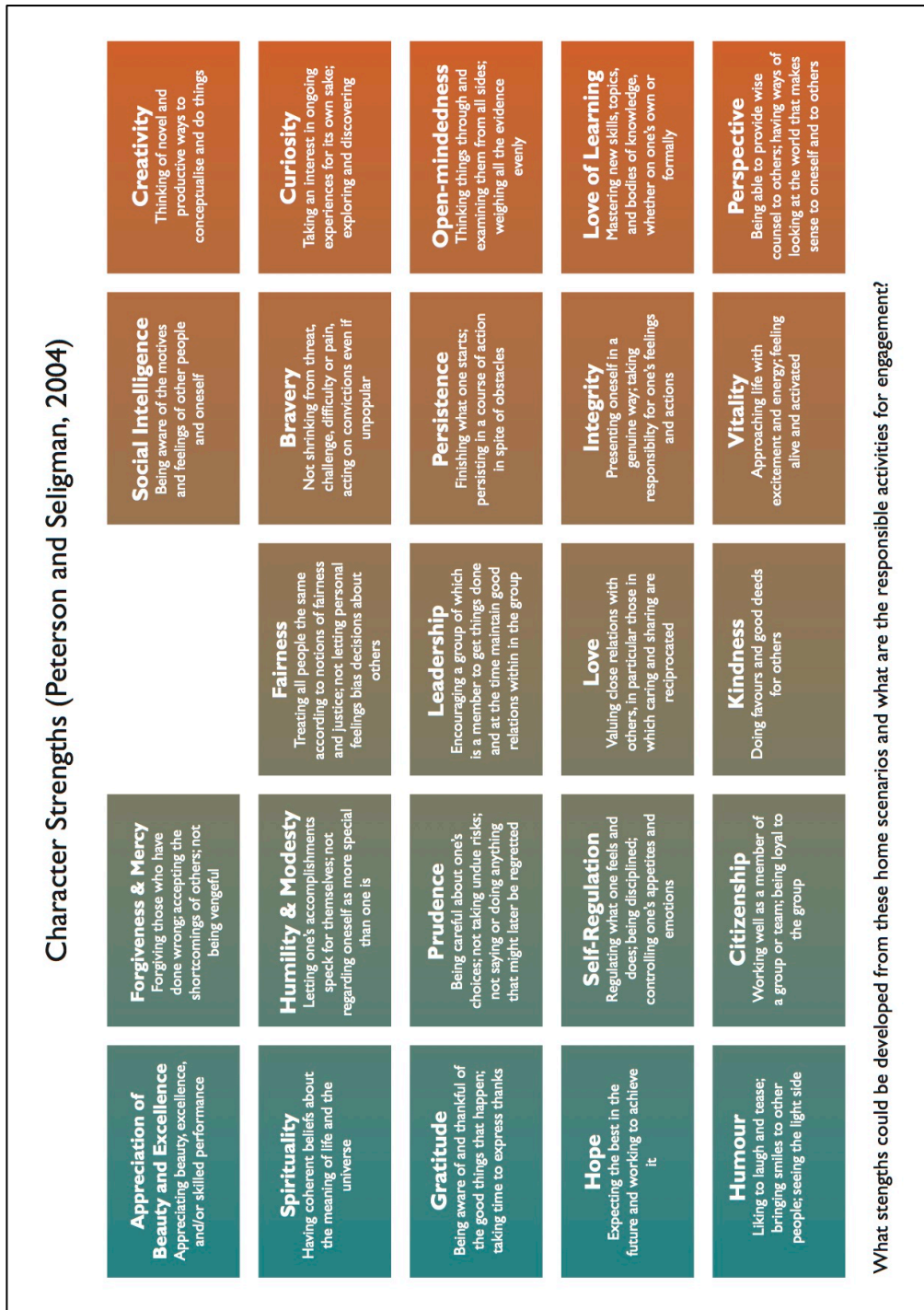


Figure 6.6 – 24 Strengths Sheet Used with Design Tool 2, Version 1, Developed During Phase 3, Part 1

Positive emotions tend to occur when physiological needs are met, creating *happiness as pleasure* (see Section 2.1). The 25 Common Positive Emotions Sheet was hence employed to stimulate ideation and discussion about what positive emotions could emerge from speculative home experiences (created using Design Tool 1). Through this, *emotional binders for pleasure* (activities for pleasure within positive family experiences) facilitated by these

moments could be identified. For example, ‘kindness’ and ‘surprise’ might emerge from a family scenario where one partner has a favourite meal ready when the other returns home, locating planning and cooking as the *emotional binders for pleasure*. Accordingly, the 25 Common Positive Emotions Sheet was decorated with corresponding colours to the ‘activities of pleasure’ column on Design Tool 2 to emphasise where it could be used (see Figure 6.5).

The 24 Strengths Sheet was created to motivate thoughts on what strengths were facilitated by hypothetical home experiences (generated using Design Tool 1). Similarly, strengths are developed through engaging activities when one learns a new skill or immerses oneself in an enjoyable activity, facilitating *happiness as engagement* (see Section 2.1). These strengths could be used to identify relevant *emotional binders for engagement* (activities for engagement within positive family experiences) in spontaneous positive family moments. For instance, strengths such as ‘creativity’, ‘love’ and ‘gratitude’ could be developed in a pleasant family scenario where an individual creates and surprises their partner with a favourite meal with *emotional binders for engagement* including planning, researching, giving, cooking, thanking and talking. Furthermore, the 24 Strengths Sheet was decorated with matching colours to the ‘activities for engagement’ column on Design Tool 2 to indicate where it could be employed (see Figure 6.6).

### ***Design Tool 3: Identifying Physical Binders for Pleasure, Engagement and Meaning***

Having located relevant emotional binders for spontaneous happy home experiences employing Design Tool 2, the next step required identifying corresponding physical binders; physical binders support emotional binders and, once located, could be used to facilitate spontaneous positive family experiences through design. To achieve this, Design Tool 3 (see Figure 6.7) was devised to combine all relevant physical binders supporting emotional binders in spontaneous home scenarios, also following a ‘rational method’ strategy.

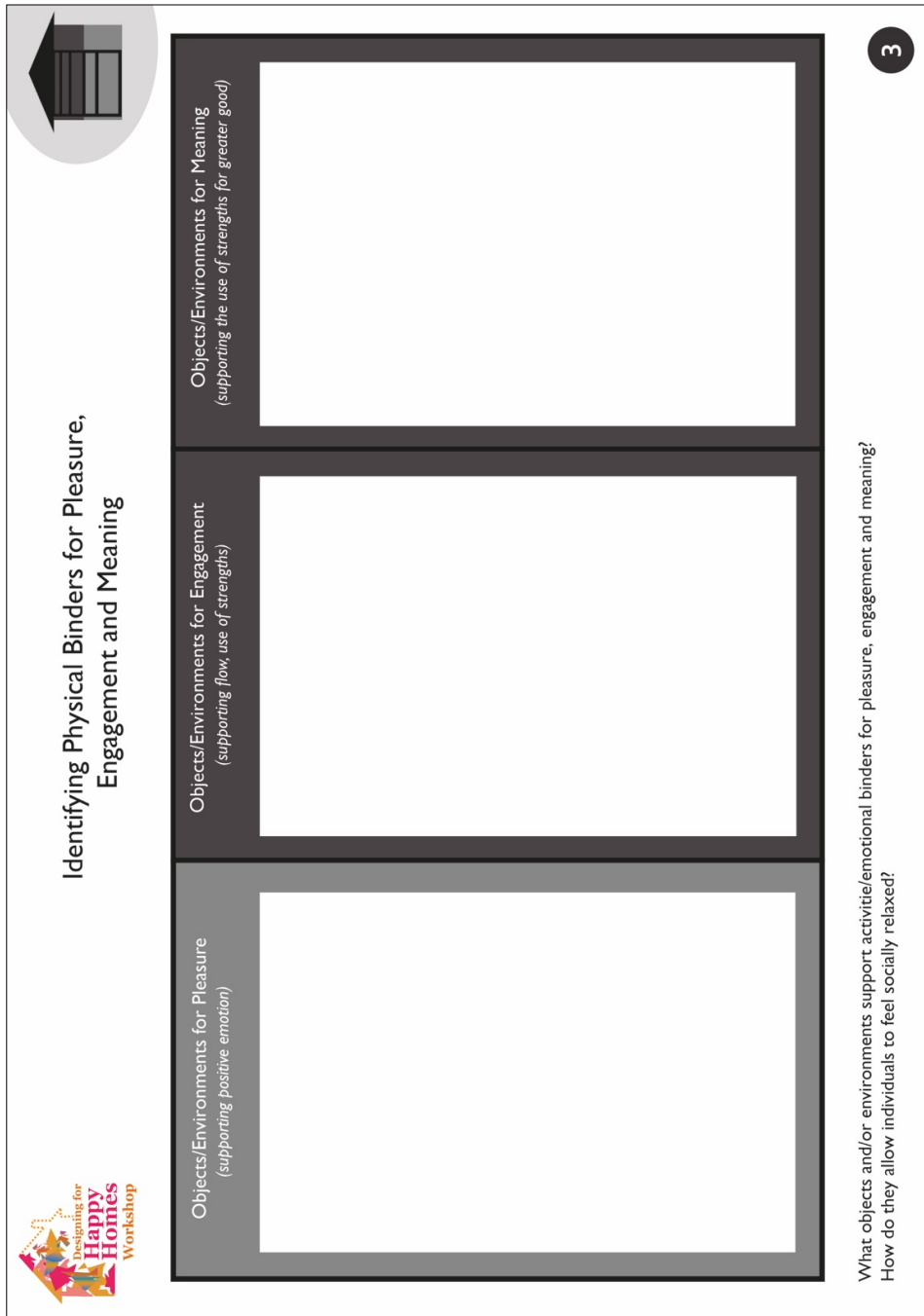


Figure 6.7 – Design Tool 3 Developed During Phase 3, Part I

Design Tool 3 employed a similar format to Design Tool 2. Its template divided physical binders into categorical columns, such as those facilitating *emotional binders for pleasure, engagement, and meaning*. These were employed to encourage ideation on different physical binders that could be used during spontaneous homes experiences. Furthermore, columns were named ‘objects/environments for pleasure’, ‘objects/environments for engagement’ and ‘objects/environments for meaning’ to facilitate immediate understanding during the exercise.

This same labelling was used throughout the design tools where relevant. The columns were coloured in light and dark grey to match those previously employed on the ENHAS to represent essential and nonessential home activities (i.e. eating, drinking), as ‘objects/environments for pleasure’ (i.e. food, bed), ‘objects/environments for engagement’ and ‘objects/environments for meaning’ supported these.

#### *Design Tool 4: Initiating Group Interaction Through Design*

Having established applicable emotional binders and physical binders of spontaneous positive family experiences, it was necessary to understand how design could use these to facilitate the next element of positive family experiences, *togetherness*—such as through the promotion of positive relational messages (i.e. those that convey positive communications about the giver to the receiver, see Section 2.4.2.2). Design Tool 4 was therefore created to facilitate ideation around this (see Figure 6.8).

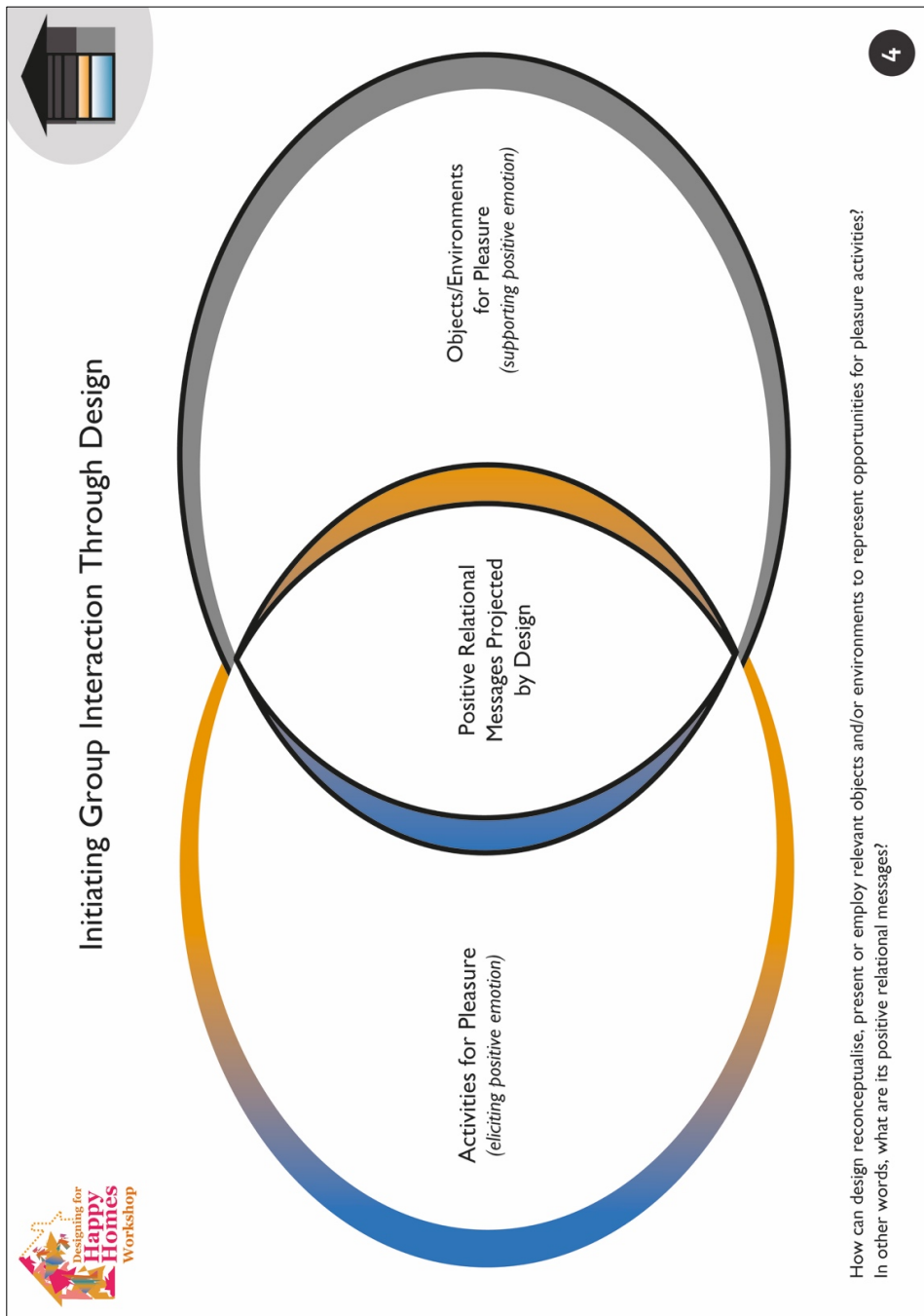


Figure 6.8 – Design Tool 4 Developed During Phase 3, Part I

It focused on utilising emotional and physical binders for pleasure to trigger group interactions as they were associated more with essential home activities—referred to as ‘activities’ and ‘objects/environments for pleasure’ as in previous tools for efficient comprehension. In a similar manner to Design Tool 1 (see Figure 6.2), two overlapping circles were used on its template to draw attention to concepts that could literally be *combined* to answer questions posed on Design Tool 4 (see Figure 6.8)—such as how

‘Object/environments for Pleasure’ could be support ‘Activities for Pleasure’ through positive relational messages—facilitating *concept combination* and ‘rational method’ inspired organisation. As previously discussed, design concepts utilising positive relational messages for essential home activities would be more applicable to multiple home scenarios as happy and unhappy homes would find these attractive propositions—for example, a service design that facilitates a clothes swapping event for families, allowing participants to save money. Furthermore, if circumstances (or physical binders in place) were right, these emotional binders could evolve into those for engagement and meaning (see Section 5.5.1.8). For instance, families attending a clothes swapping event may also get to know their neighbours and build friendships through this.

#### *Design Tool 5: Prolonging Engagement Through Flow*

Subsequently, a tool that enabled examination of how relevant emotional binders and physical binders could facilitate the final component of spontaneous family experiences, *synchronised rest periods*—thus supporting them in their entirety—through design was required. Design Tool 5 (see Figure 6.9) was therefore created towards this aim.





Figure 6.9 – Design Tool 5 Developed During Phase 3, Part I

Its template included two overlapping circles labelled ‘Activities for Engagement’ and ‘Objects/Environments for Engagement’, with the purpose of encouraging designers to list (rational method) and *combine concepts* for *emotional* and *physical binders for engagement*—identified using Design Tool 2 and 3—and conceptualise ‘Experiences of Flow Supported by Design’. Design Tool 5 focused on *emotional* and *physical binders for engagement* as activities for *engagement* appeared to facilitate ‘flow’ (i.e. immersion in an enjoyable task) (see

Section 2.3.3) through *emotional binders for engagement* during positive family scenarios—extending the length of time individuals spent together.

### *Design Tool 6: Recording Meaningful Moments*

Having explored ways of facilitating each component of spontaneous positive family experiences, another design tool was required to investigate ways of capturing these moments through design to encourage their repetition and evolution into *routine* moments. Design Tool 6 was developed towards this goal. Its template focused on the concept of meaning by prompting designers to compile (rational method) and *combine* all *emotional* and *physical binders for meaning* (concept combination), previously identified using prior tools—Design Tool 2 and 3. A depiction of two intersecting circles with relevant labelling was displayed to encourage ideation on ways design might employ physical binders to evoke and/or capture relevant emotional binders for meaning (see Figure 6.10).

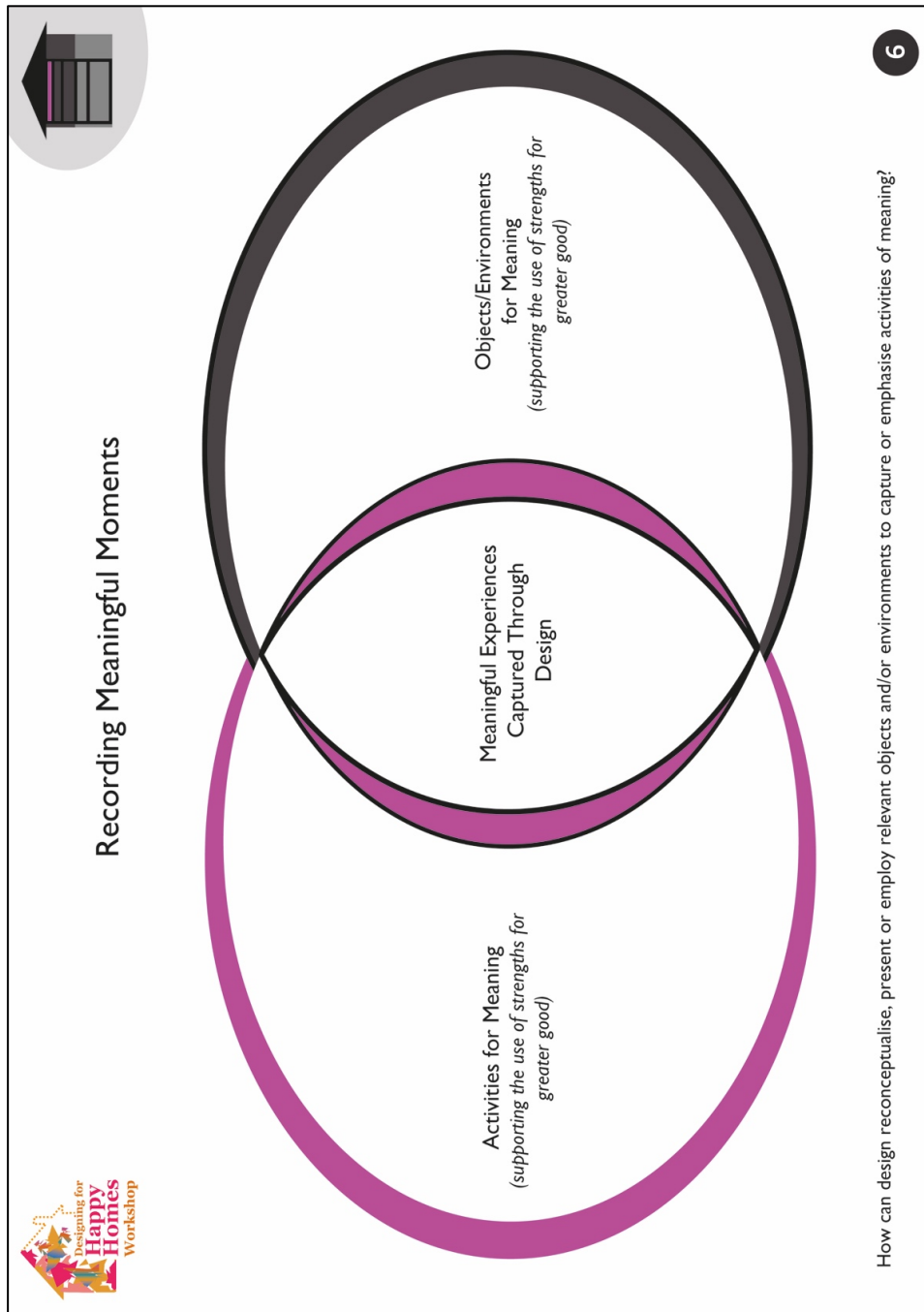


Figure 6.10 – Design Tool 6 Developed During Phase 3, Part I

Accordingly, *emotional binders for meaning* could lead to meaningful experiences that could be captured by design using *physical binders for meaning*—a service design or product that facilitates the creation of handmade artefacts during a positive family experience for example. This tool was inspired from Study 1 and Study 2 findings (see Sections 4.5.1.3 and 5.5.1.2); these happy home samples all kept artefacts (i.e. handmade crafts, photos) that represented significant moments with family and/or life events, and appeared to motivate future positive

experiences with household members. Accordingly, this emphasised the importance of encouraging individuals to recreate enjoyable scenarios once these had ceased through the creation and display of reminiscent artefacts of meaning—such as *physical binders for meaning* that promoted corresponding emotional binders.

#### *Design Tool 7: Designing for Home Life Happiness*

Expectedly, many ideational notes would be created from using Design Tools 4–6. An additional tool was therefore necessary to consolidate these findings so that they could be employed in subsequent design activities with greater ease. Consequently, Design Tool 7 was created to provide a means of collecting all valuable insights from Design Tool 4–6 (rational method) (see Figure 6.11).

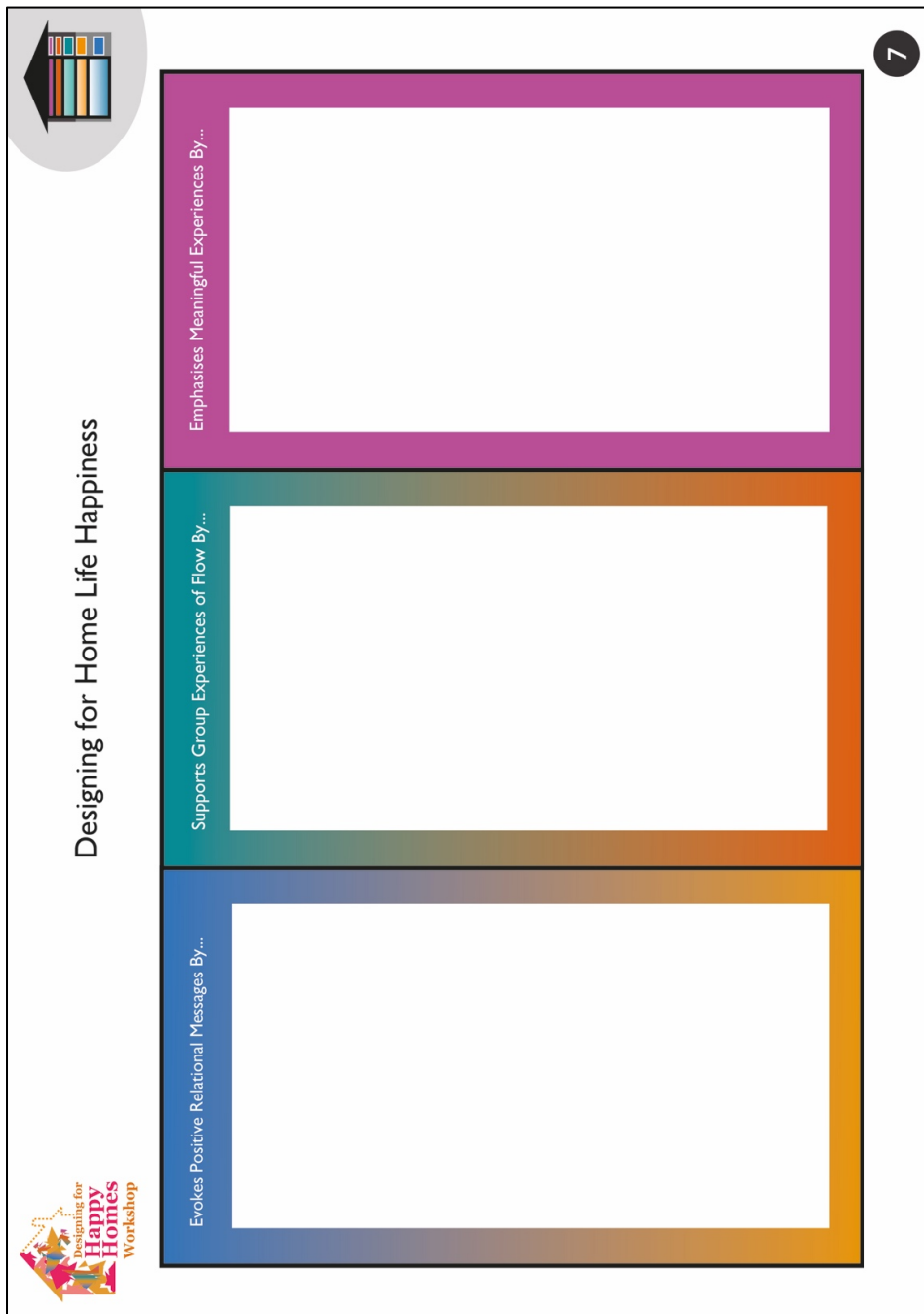


Figure 6.11 – Design Tool 7 Developed During Phase 3, Part I

Its template included representative columns for how design could: draw family members together by eliciting positive relations messages (conceptualised using Design Tool 4), encourage individuals to stay with each other through experiences of ‘flow’ (determined by Design Tool 5) and emphasise meaningful experiences (conceived through Design Tool 6) (see Figure 6.11).

### *Steps for Designing for Home Happiness Templates Sheet (SDHHTS)*

To further aid comprehension of HHDT and their order of use, Steps for Designing for Home Happiness Templates Sheet (SDHHTS), was created to accompany the tools (see Figure 6.12).

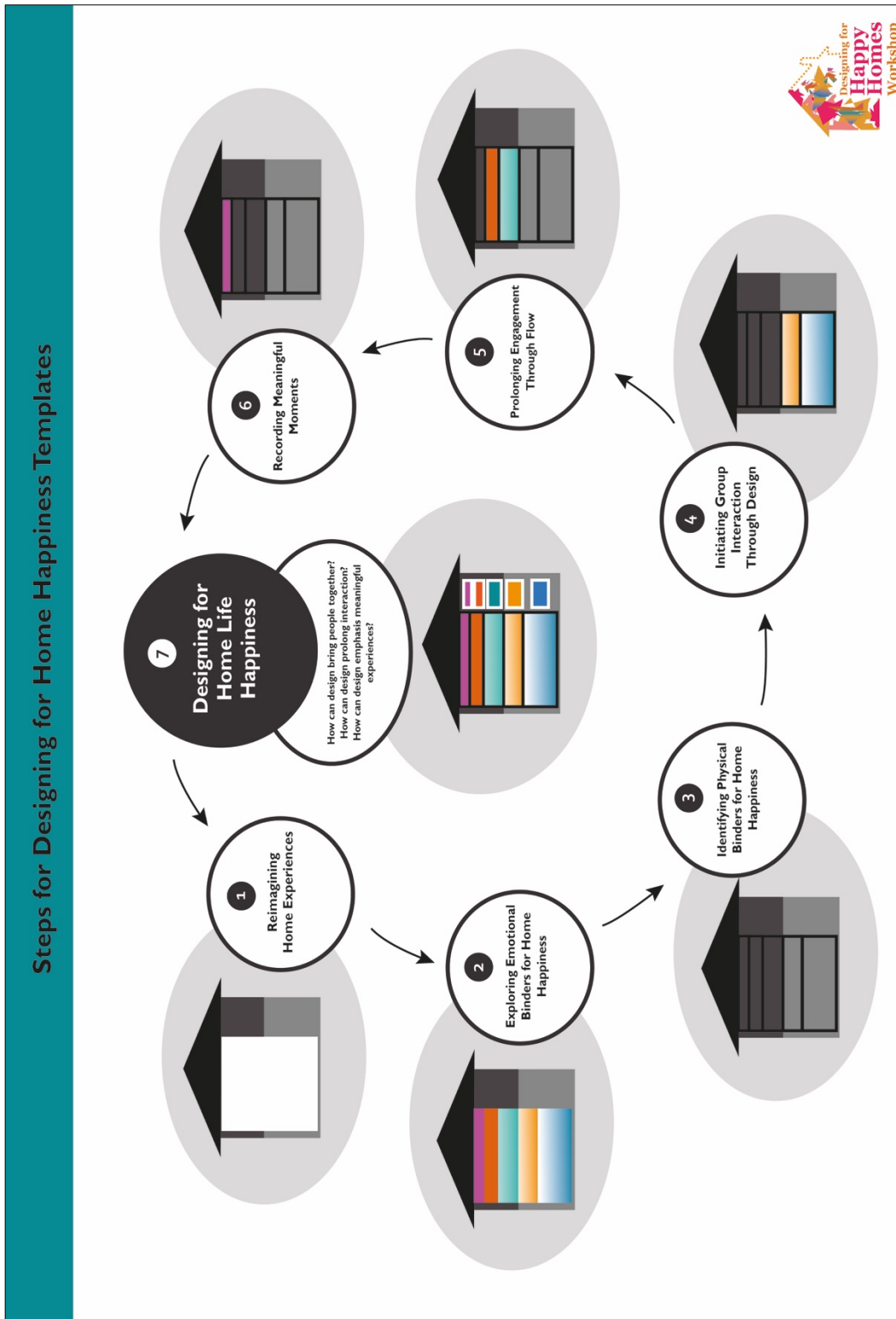


Figure 6.12 – Steps for Designing for Home Happiness Templates Sheet (SDHHTS) Developed During Phase 3, Part I

To illustrate each step, this sheet included the design tool name and a corresponding house symbol at each relevant step. These icons were modelled on the home happiness activities and needs house silhouette displayed on ENHAS (see Figure 6.3), differentiated visually by

the step they represented. For example, the Step 1 (Reimagining Home Experiences) house symbol included a white box in place of the coloured blocks for home happiness activities to convey the process of conceptualising *new* home experiences/activities (see Figure 6.12). In contrast, Step 2 (Exploring Emotional Binders for Home Happiness) included a house symbol displaying all the colours of the home happiness activities as it dealt with exploring the *activities* within positive family experiences (emotional binders) that were supported in new home experiences. Additionally, the house icon for each step was placed on every corresponding design tool (i.e. top right-hand corner) to further illustrate the correct order of usage.

#### **6.3.1.4 Identifying Service Design Tools to Develop Home Happiness Designs**

Having established spontaneous positive family experiences that supported both essential and nonessential home activities, including how design could support these, using the HHDT, it was deemed necessary to employ additional methods to develop emerging designs further. Specific service design tools, namely offerings map, stakeholder map and customer journey map, presented applicable approaches for this—previously discussed in Section 2.4.2.1.

##### ***Offerings Map***

The offerings map presented a way of locating the designs' unique selling points by comparing them to similar pre-existing designs—alluding to the value, if any, of employing the HHDT to conceptualise corresponding designs. There are no specific guidelines for how offerings maps should be illustrated, which can include visuals and/or annotations (Sangiorgi, 2004). Resultantly, the offerings map was employed as a 'rational method', comprising different columns to organise existing relatable designs (i.e. services and/or PSSs) and their offerings in a comparable manner to those of home happiness designs. Please see Figure 6.13 for an example of the offerings map template.



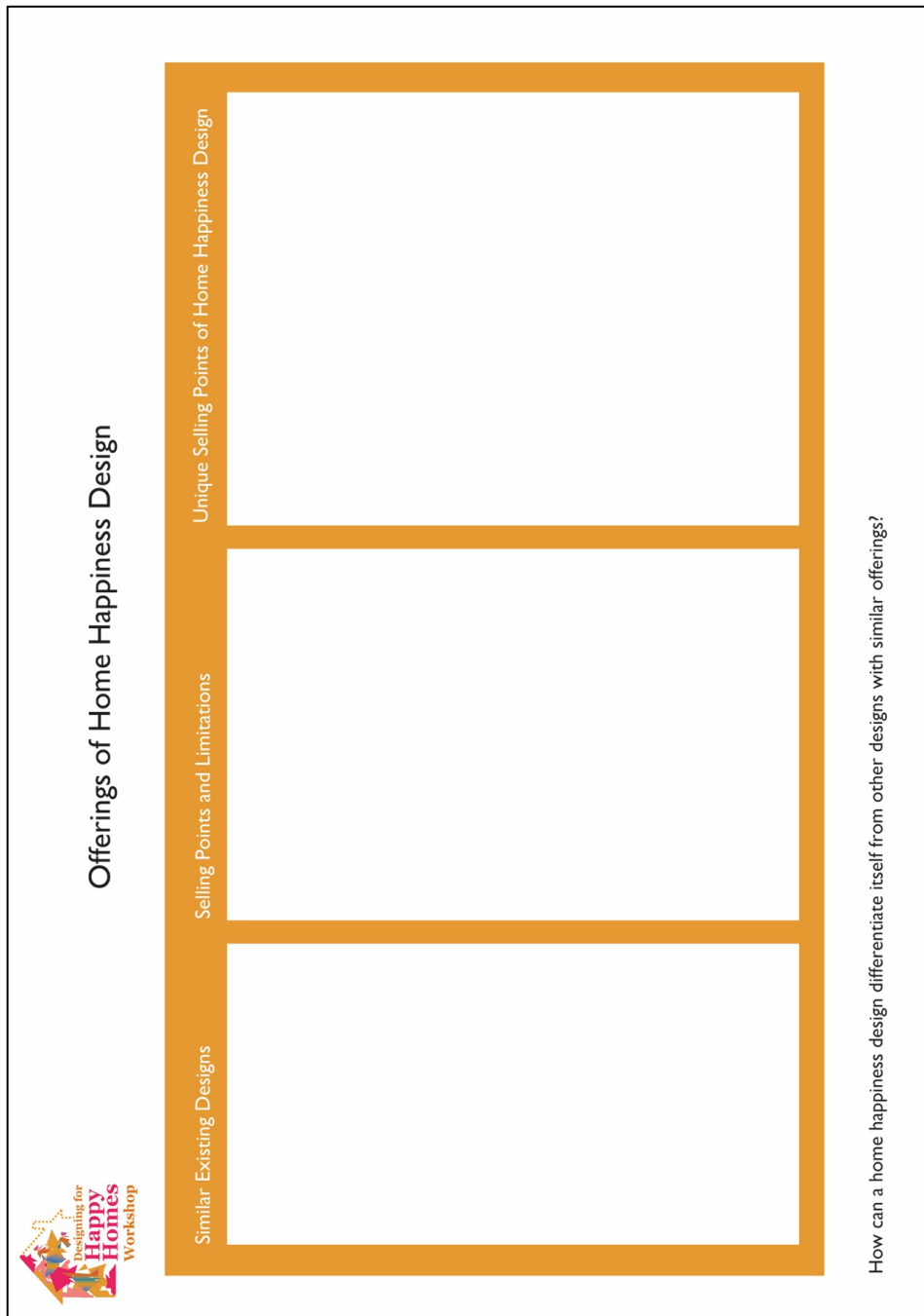


Figure 6.13 – Offerings Map Developed During Phase 3, Part I

### *Stakeholder Map*

After identifying the selling points of home happiness designs through the offerings map, it was necessary to locate prospective stakeholders who would support and sustain these qualities. Stakeholder maps illustrate all responsible individuals, including their interests and motives, to draw connections between these groups, such as shared concerns, to inform service design solutions (Stickdorn and Schneider, 2011; Design Council, 2013). It was

therefore included to encourage designers to begin identifying relevant parties that could facilitate home happiness designs only as knowledge of their preferences were not possible with initial concepts being developed in the same instance. The template of the stakeholder map was hence kept relatively simple and included titles such as ‘direct’, ‘indirect’ and ‘possible’ to motivate relevant ideations of stakeholders—also emulating a ‘rational method’ approach (see Figure 6.14).

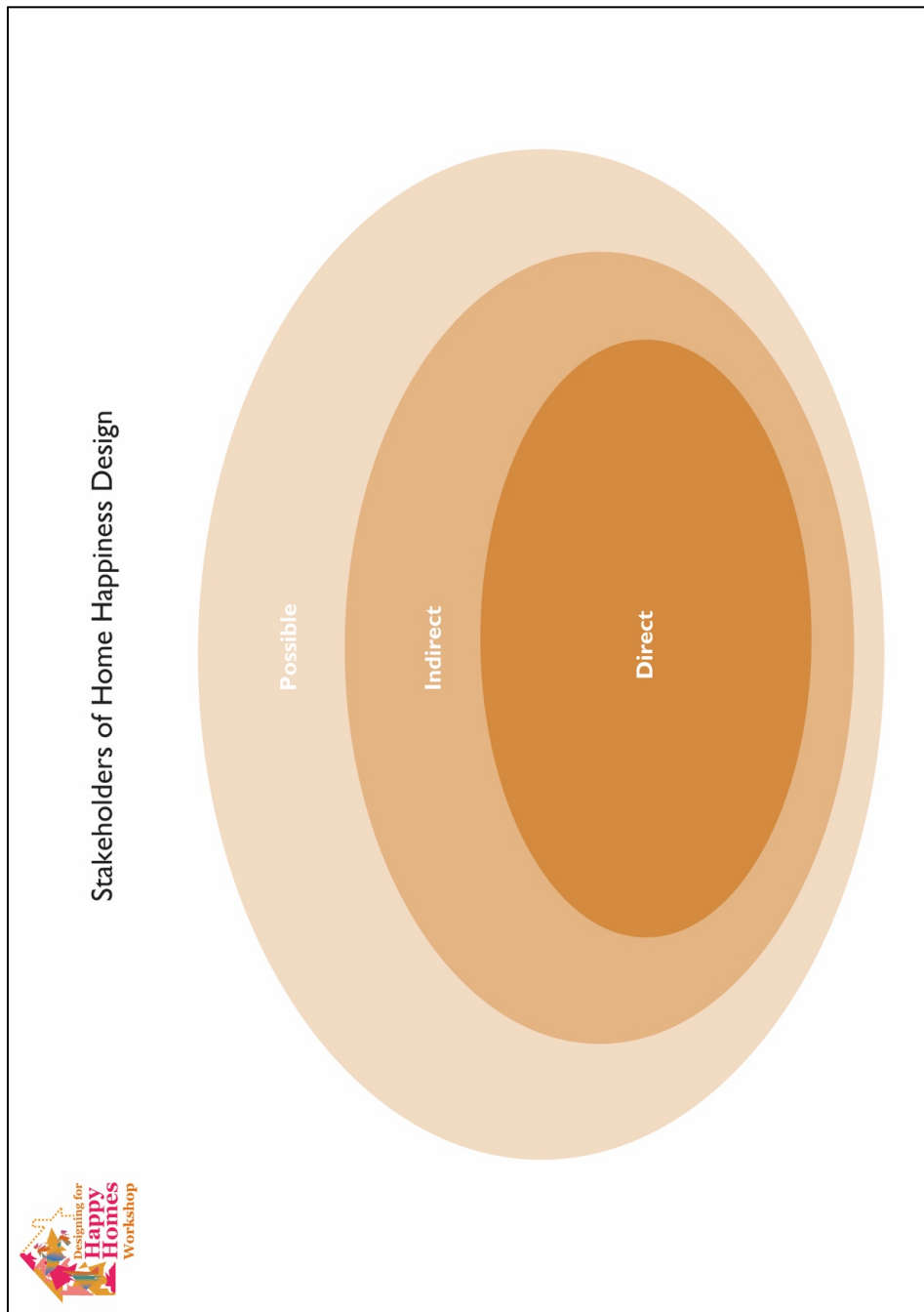


Figure 6.14 – Stakeholder Map Developed During Phase 3, Part I

### *Customer Journey Map*

Employing the HHDT would expectedly provide the foundry components of home happiness designs, such as how they facilitated suitable spontaneous positive family experiences. Additionally, using the offerings map and stakeholder map would allow designers to understand emerging concepts' offerings and relevant stakeholders. An additional tool was hence required to illustrate how future users would interact with design, incorporating all results from subsequent tools. The customer journey map was therefore included as these are used to conceptualise how potential users would interact with emergent designs (Stickdorn and Schneider, 2011). The template for the customer journey map was created by considering all the generic steps a user may take with any new design, such as *discovery, purchase/join, interaction, continued use* and *refer*. In this manner, this tool was also employed as a 'rational method' to illustrate the practicalities of home happiness designs: how it was advertised, how and where it was bought or joined, how and why it was interacted with, why it continued to be used and was recommended to others. To speed up this process, potential touchpoints and prompting questions (i.e. how are the users informed of the design?) were listed under each stage. Please see Figure 6.15 for an example of the template created.



Figure 6.15 – Customer Journey Map Developed During Phase 3, Part I

## 6.4 Overview of the Initial Design Tools and Process

The design process and tools' development described in Section 6.3 led to the initial conceptualisation of the *Designing for Happy Homes Workshops*. Related procedures, activities and techniques are summarised in Table 6.3 below:

Table 6.3– Tasks, Methods and Procedures of Designing for Happy Homes Workshops, Version 1

| Task   | Procedure  | Tools/Techniques   |
|--|--|--|
| <b>Introduction</b>  | 1. Facilitator to introduce the Home Happiness Theory and background research to participants. (max. 10 mins).   | <ul style="list-style-type: none"> <li>• Oral presentation</li> <li>• Computer based presentation</li> </ul>   |
| <b>Activity 1.</b><br>Sharing of positive home experiences with others | <p>Workshop preparation.</p> <p>1. Participants to think of a positive family experience at home.</p> <p>2. Participants to share these experiences one by one with the group using prompting questions displayed on projector slide (max. 25 mins).</p> <p>3. Facilitator to split participants into two design teams and give each a persona to read (see Figure 6.1) (max. 5 mins).</p> | <ul style="list-style-type: none"> <li>• Service Safari (modified for home)</li> <li>• Prompting questions displayed on projector screen</li> <li>• Persona</li> </ul>                     |
| <b>Activity 2.</b><br>Reimagining home experiences                     | <p>1. Facilitator to, introduce and supply Design Tool 1 (see Figures 6.2–6.3) and the SDHHTS (see Figure 6.12), and provide large sheets of flipchart paper, markers and post-its to each team (max. 5 mins).</p> <p>2. Participants to use Design Tool 1 to brainstorm new home experiences for happiness (max. 10 mins).</p>  | <ul style="list-style-type: none"> <li>• Design Tool 1 (template, ENHAS)</li> <li>• SDHHTS</li> <li>• Visual of Design Tool 1 on projector screen</li> </ul>                               |
| <b>Activity 3.</b><br>Exploring emotional binders for home happiness   | <p>1. Facilitator to present and supply Design Tool 2 (see Figures 6.4–6.6) to participants (max. 5 mins).</p> <p>2. Design teams to use Design Tool 2 to identify emotional binders for pleasure, engagement and meaning in one or more of the new home scenarios conceptualised in Activity 2 (max. 15 mins).</p>  | <ul style="list-style-type: none"> <li>• Design Tool 2 (template, 25 Common Positive Emotions Sheet, 24 Strengths Sheet)</li> <li>• Visual of Design Tool 2 on projector screen</li> </ul> |
| <b>Activity 4.</b><br>Identifying physical binders for happiness       | <p>1. Facilitator to introduce and provide Design Tool 3 (see Figure 6.7) to design teams (max. 5 mins).</p> <p>2. Design teams to use Design Tool 3 to locate corresponding physical binders for each emotional binder located in Activity 3 (max. 10 mins).</p>  | <ul style="list-style-type: none"> <li>• Design Tool 3</li> <li>• Visual of Design Tool 3 on projector screen</li> </ul>   |

|  |   |  |
|--|---|--|
| <p><b>Activity 5.</b><br/>Initiating group interaction</p>   | <ol style="list-style-type: none"> <li>1. Facilitator to present and supply Design Tool 4 (see Figure 6.8) to design teams (max. 5 mins).</li> <li>2. Design teams to use Design Tool 4 to combine lists of emotional and physical binders for pleasure created in Activity 2 and 3 to understand how these and positive relational messages could motivate group interaction (max. 10 mins).</li> </ol>  | <ul style="list-style-type: none"> <li>• Design Tool 4</li> <li>• Image of Design Tool 4 on projector screen</li> </ul>  |
| <p><b>Activity 6.</b><br/>Prolonging engagement through flow</p>   | <ol style="list-style-type: none"> <li>1. Facilitator to present and supply Design Tool 5 (see Figure 6.9) to design teams (max. 5 mins).</li> <li>2. Design teams to employ Design Tool 6 to consolidate all emotional and physical binders for engagement to understand how these could prolong positive family experiences (max. 10 mins).</li> </ol>  | <ul style="list-style-type: none"> <li>• Design Tool 5</li> <li>• Visual of Design Tool 5 on projector screen</li> </ul>   |
| <p><b>Activity 7.</b><br/>Recording meaningful moments</p>   | <ol style="list-style-type: none"> <li>1. Facilitator to present and supply Design Tool 6 (see Figure 6.10) to design teams (max. 5 mins).</li> <li>2. Design teams to use Design Tool 6 to list emotional and physical binders for meaning from previous exercises to understand how design could introduce or present physical binders for meaning to foster or capture emotional binders for meaning (max. 10 mins).</li> </ol>  | <ul style="list-style-type: none"> <li>• Design Tool 6</li> <li>• Image of Design Tool 6 on projector screen</li> </ul>  |
| <p><b>Activity 8.</b><br/>Design for home life happiness</p>   | <ol style="list-style-type: none"> <li>1. Facilitator to present and supply Design Tool 7 (see Figure 6.11) to design teams (max. 5 mins).</li> <li>2. Design teams to use Design Tool 7 to combine results from Activity 5 to 7 in the columns provided (max. 5 mins).</li> </ol>  | <ul style="list-style-type: none"> <li>• Design Tool 7</li> <li>• Image of Design Tool 7 on projector screen</li> </ul>  |
| <p><b>Activity 9.</b><br/>Using service design tools to formalise design for home happiness concepts</p> | <ol style="list-style-type: none"> <li>1. Facilitator to present and supply offerings map (see Figure 6.13) to design teams (max. 5 mins).</li> <li>2. Design teams to use offerings map to research and compare similar design concepts to their home happiness design (max. 15 mins).</li> <li>3. Facilitator to present and supply stakeholder map (see Figure 6.14) to design teams (max. 5 mins).</li> <li>4. Design teams to use stakeholder map to list all direct, indirect and possible stakeholders for their home happiness design (max. 10 mins).</li> <li>5. Facilitator to introduce and provide customer journey map (see Figure 6.15) to design teams (max. 5 mins).</li> <li>6. Design teams to use customer journey map to describe and map out speculative user interactions with the design intervention, using different stages</li> </ol> | <ul style="list-style-type: none"> <li>• Offerings Map</li> <li>• Stakeholder Map</li> <li>• Customer Journey Map</li> <li>• Image of each tool on the projector screen when in use by design teams</li> </ul> |

|                                 |   |   |
|---------------------------------|---|---|
|                                 | and questions provided on the tool's template as prompts (max. 20 mins).  |   |
| Presentation of Design Outcomes | 1. Each design team to present their final design solution using the results from design tools and/or additional sketches and annotations for reference and illustrative purposes (max. 15 mins). | <ul style="list-style-type: none"> <li>• Oral presentation</li> <li>• Completed design tools (i.e. customer journey map)</li> <li>• Sketches</li> </ul> |

## 6.5 Next Steps

The next stages of this research involved testing these tools and process through the Designing for Home Happiness Workshops in real world contexts with design experts to create design inventions for happier homes, discussed in proceeding Chapter 7.

The Designing for Home Happiness Workshops afforded the following:

- The establishment and validation of the Designing for Home Happiness Theory
- The finalisation of the design tools and process for 'designing for home happiness', creating the Designing for Home Happiness Framework
- The conceptualisation of home happiness designs, including services and a PSS, supportive of collective home happiness and related social initiatives.

## 7 Phase 3, Part 2: Main Studies – Designing for Happiness in the Home

This chapter elaborates on Part 2 of Phase 3; the design tools and process developed in Part 1 of Phase 3 were deployed in a design context through the Designing for Happy Homes Workshops to investigate implications for ‘designing for home happiness’ and Service Design. It comprised of a pilot, and Main Study 1 and 2. The aim, objectives, methodology, results and findings for these studies are detailed in the following sections.

### 7.1 Introduction

Part 1 of Phase 3 led to the development of design tools and a process for ‘designing for home happiness’ by conceptualising the *Designing for Happy Homes Workshops*. Part 2 of Phase 3 therefore involved implementing these in a design context with design experts, which led the creation of a new creative method, the *Designing for Home Happiness Framework* (DfHH). This was achieved through a pilot, and Main Study 1 and 2. The pilot was used to finalise the design tools and process. The Main Studies allowed for the transferability and effectiveness of DfHH in conceptualising home happiness designs to be verified.

### 7.2 Study Aim & Objectives

The Main Studies aimed to *fully* answer the fourth objective; ‘to develop and implement ‘designing for home happiness’ design tools and framework for use with service design approaches’, and fifth objective; ‘to examine the implications of using art therapy techniques within Service Design to improve home life happiness for future happy homes, Service Design and social innovation’. Through this, their goals were to create comprehensive design tools and a process for ‘designing for home happiness’ and locate relevant contributions to knowledge.

Main Studies objectives were the following:

- To test the DfHH for ‘designing for homes happiness’ with design experts
- To refine HHDT and process in a design context
- To validate using service design tools within the finalised DfHH



### 7.3 Methodology

The research methodology approach for Phase 3 Part 2 is the same as that previously addressed in Chapter 3 (see Section 3.6.6). Ethical procedures were followed to enable the safety of the researcher and participants during the Main Studies planning and deployment, as previously described in Section 3.9. Utilised methods and analysis techniques in Phase 3 Part 2 are listed in Table 7.1:-

Table 7.1 – Phase 3 Part 2 Data Collection and Analysis Techniques

| Data Collection Method   | Analysis Techniques           |
|--|-------------------------------|
| Workshop<br>Participant observation<br>Participant-as-observer<br>Documentary analysis | Analytical & reflective memos |
|  | Session summary sheets        |
|  | Sensitising questions         |
|  | A priori codes                |
|  | Constant comparison technique |
|  | Thematic analysis             |
|  | Template analysis technique   |

Phase 3 pilot recruited two males and four females from different design backgrounds of 25 to 55 years of age. Table 7.2 displays Phase 3 pilot participant characteristics: -

Table 7.2 – Participant Breakdown for Main Studies' Pilot

| Adult | Gender, Age | Discipline                     |
|-------|-------------|--------------------------------|
| A1    | F, 55       | Design Ergonomics              |
| A2    | M, 29       | Product Design, Graphic Design |
| A3    | M, 46       | Sustainable Design             |
| A4    | F, 27       | Service Design, Graphic Design |
| A5    | F, 25       | Industrial Design              |
| A6    | F, 42       | Textile Design                 |

(F= Female, M= Male, #= Age)

During the Main Studies, the DfHH was trialled in two different contexts—Loughborough University and University of Limerick—with design experts. The University of Limerick was selected as the researcher had made contacts there through networking at a conference. This enabled the evaluation of the DfHH's transferability in supporting 'designing for home happiness' with other non-UK audiences. Phase 3, Main Study 1 obtained six design experts, five females and one male, from different fields with knowledge of service design tools, between 29 and 57 years old. See Table 7.3 for breakdown:-

Table 7.3 – Participant Breakdown for Main Study 1

| Adult | Gender, Age | Discipline                      |
|-------|-------------|---------------------------------|
| A1    | F, 57       | Design Ergonomics               |
| A2    | F, 29       | Service and User-centred Design |
| A3    | M, 31       | Codesign and Service Design     |
| A4    | F, 51       | Industrial Design Engineering   |
| A5    | F, 42       | Sustainable Design              |
| A6    | F,48        | Visual Communication            |

(M=Male, F= Female, #= Age)

Notably, attempts were made to widen Main Study 1 sample group to those outside of Loughborough University, acknowledging the potential biases of using academics from the same university as the researcher and the different perspectives those from industry could contribute. However, this was not successful due to the time required for the workshop as it would require individuals to take time off work. The researcher therefore decided to proceed with a mostly academic sample from Loughborough University for Main Study 1.

Phase 3, Main Study 2 recruited six design experts from Ireland, four males and two females, from product and industrial design backgrounds with a familiarity of service design tools—aged 27 to 56. Table 7.4 illustrates participant composition for Main Study 2:-

Table 7.4 – Participant Breakdown for Main Study 2

| Adult | Gender, Age | Discipline        |
|-------|-------------|-------------------|
| A1    | F, 38       | Product Design    |
| A2    | M, 45       | Industrial Design |
| A3    | M, 27       | Product Design    |
| A4    | M, 37       | Product Design    |
| A5    | M, 56       | Industrial Design |
| A6    | F, 51       | Product Design    |

(#= Age)

#### 7.4 Pilot of Main Studies

Having composed an initial *Designing for Happy Homes Workshop* format and accompanying design tools, it was necessary to test this in a real-world context to devise and refine a final version. This was achieved through a pilot. The pilot’s aim was to develop and trial HHDT with service design tools, and by doing so, establish an appropriate workshop format to answer the fourth objective and the fifth objective (see p. 246). The pilot objectives were:

- To trial preliminary design tools and related process for ‘designing for home happiness’

- To evaluate the effectiveness of using service design tools in this process
- To develop a robust version of the Designing for Happy Homes Workshop and, through this, create the DfHH

Participants were recruited through email correspondence with contacts at Loughborough University and the Loughborough locality. The pilot workshop followed the same process as outlined in Table 6.3. See Appendix AB for examples of workshop slides. Participants were split into two design teams so that workshop tasks could be observed in more than one scenario simultaneously, improving reliability of results. Furthermore, feedback forms were handed out at the end of the session to gather specific answers on the application of each design tool and overall running of the workshop. In total, this workshop lasted approximately 4.5 hours, including a 10-minute break and 1-hour lunch recess. Also, see Appendix AC for pilot workshop protocol.

#### **7.4.1 Results and Next Steps**

Overall, participants appeared engaged in workshop activities and content. Feedback from the initial explanatory presentation was generally very positive, and participants seemed interested in the material being discussed—supporting *discovery* (explained in Section 6.3.1). Although, there were several areas that required further development. The following sections summarise this:

##### *Clarity of Home Happiness Theory*

During workshop activities, the facilitator had to continuously help participants to understand what emotional and physical binders for pleasure, engagement and meaning were. Given this, it seemed necessary to include additional visual examples of these in the presentation to improve comprehension during future workshops. Furthermore, Activity 1 (Sharing of Positive Family Experiences) allowed participants to connect the theories discussed in the presentation to their personal experiences, facilitating *immersion* and *connection*—previously described in Section 6.3.1. This was evidenced by everyone’s ability to comment on whether their positive family experiences were planned, spontaneous or routine. Additionally, they could locate relevant emotional and physical aspects, and identify possible emotional and physical binders through this. For example, Participant A2 discussed

a scenario where he and other family members created a maze for their pet hamster and began listing off physical binders that supported the experience and resulting emotional binders (i.e. building and playing):

“a clear table, Lego... and a sheet of Perspex... it was a fun way of trying to build something” (Participant A2)

Additionally, sharing positive home experiences enabled individuals to discover relatable and humorous aspects about each other, motivating greater group interaction comradery and fun. Collectively, these responses indicated that this activity was an effective icebreaker exercise and it facilitated initial *immersion* and *connection* (see Section 6.3.1) with relevant concepts.

### *Effectiveness of Persona*

All participants indicated in the feedback forms that the persona (see Figure 6.1) provided believable and inspiring user information for designing, also assisting in *immersion* and *connection* (see Section 6.3.1) with user experiences. Observations of participants employing the persona confirmed this. The persona information, such as strengths and pain points, were used to create speculations on the family’s behaviour in different scenarios, allowing individuals to either dismiss or further develop emerging ideas. This was especially useful in the Activity 2 (Reimagining Home Experiences) where participants began to test how their conceptualised new home experiences would fit, or not, with the realities of the persona family. For example, one design team began discussing ways in which the speculative family member Harry could work from home, as he was an IT engineer. See Figure 7.1 for an example of related ideational work.

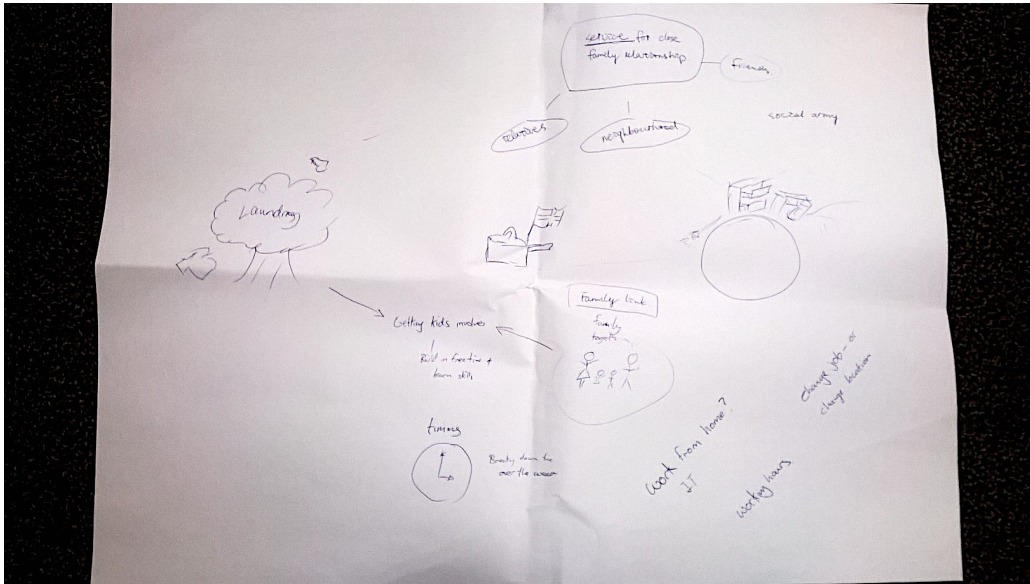


Figure 7.1 – Example of Ideational Work during Activity 2 of Phase 3, Part 2 Pilot

### *Reevaluating the Design Strategy*

Overall, participant feedback was mostly positive for Activity 2—using Design Tool 1 (Reimagining Home Experiences) (see Figure 6.2). Most agreed that the task had adequate time for completion and instructions were clear. However, the ENHAS (see Figure 6.3) provided a large amount of information. Workshop observations and corresponding video footage revealed that it took individuals additional time to locate and pair up different essential and nonessential home activities before they could begin brainstorming ideas. Notably, design tools must not interfere with the design process itself (Bailey, Konstan and Carlis, 2001). Furthermore, although Activity 2 asked participants to think of experiences as opposed to design solutions, most began to conceptualise designs automatically. Additionally, previous research has indicated that providing inspirational materials is an effective method for facilitating the design process (Sleeswijk Visser, 2009)—examples of essential and nonessential home activities in this case. It was therefore decided to prompt participants to think of design solutions (i.e. services, PSSs) that supported essential and nonessential home actions concurrently in future workshops. It was also found that a card set could present home activities individually, allowing different combinations to be paired up by hand rapidly, motivating rapid conceptualisations of designs. As well as speeding up brainstorming activities, cards could introduce a tactile element and more open creative stimulation (Casais, Mugge and Desmet, 2016). Moreover, cards could be coloured to their corresponding need grouping (see Figure 6.3) such that Essential and Nonessential Home Activities Cards

(ENHAC) could inspire designs that encouraged each need group simultaneously—expectedly more successful at facilitating *long-term* home happiness. Lidwell, Holden and Butler’s (2003) re-interpretation of Maslow’s Hierarchy Needs also supported this in which design must satisfy basic needs through *functionality* (physiological) and *reliability* (safety) before psychological needs can be fulfilled by facilitating *usability* (love and belonging), *proficiency* (esteem) and *creativity* (self actualisation), determining its perceived value. Accordingly, home happiness designs should ultimately seek to embody each of these features to support long-term home happiness.

Consequently, ENHAS also required simplification; a visual of essential and nonessential home activities was required only to allow designers to consider which home actions to select and begin exploring with ENHAC. Following this revised strategy, Design Tool 2 could be employed to understand how emerging designs as opposed to spontaneous home experiences facilitated home happiness by locating relevant emotional binders for pleasure, engagement and meaning.

#### *Overcoming Misunderstandings and Removal of Unnecessary Tasks*

In its original state, participants seemed to comprehend the purpose of Design Tool 2 (Exploring Emotional Binders for Home Happiness) during Activity 3; to understand how well their spontaneous home scenario supported home happiness by identifying what activities for pleasure, engagement and meaning it facilitated (see Figure 6.4). See for Figure 7.2 for examples of outputs.

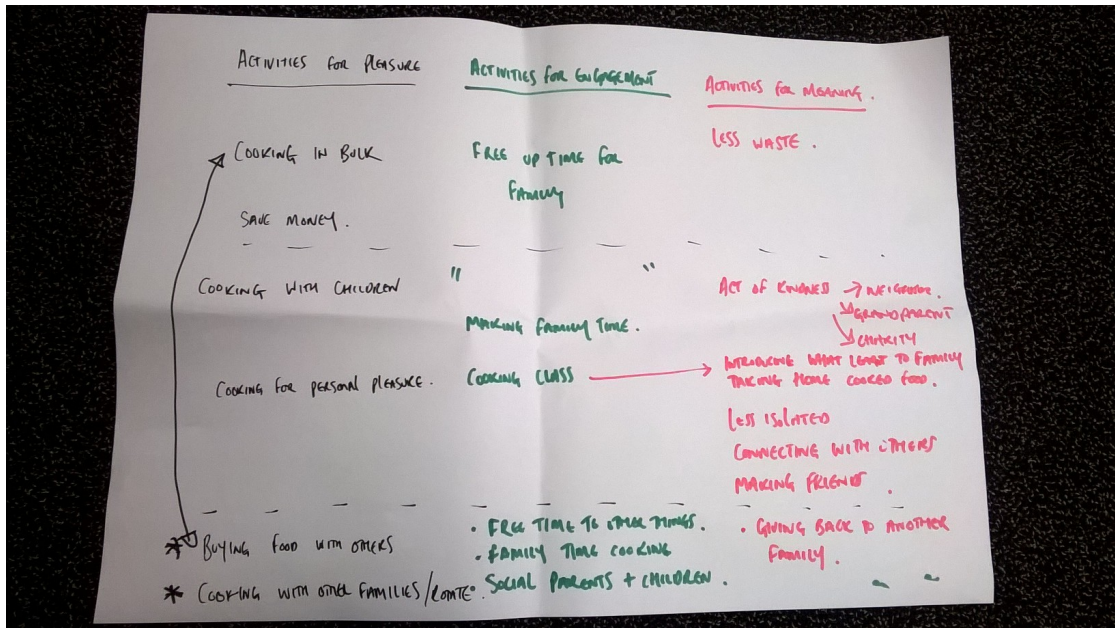


Figure 7.2 – Example of Ideational Work during Activity 3 of Phase 3, Part 2 Pilot

Design Tool 2 template language, such as referring to emotional binders as ‘activities’ (see Figure 6.4) interfered with participants’ comprehension of these concepts. These interactions were not only ‘activities’; they were *emotional binders*—happiness activities that took place within positive family experiences. Accordingly, this needed to be clarified in future sessions through verbal explanations in the introductory presentation and use of consistent language throughout the workshop, such as written instructions on tools and oral directions from the facilitator. Furthermore, additional supporting material for Design Tool 2—25 Common Positive Emotions Sheet (see Figure 6.5) and 24 Strengths Sheet (see Figure 6.6)—seemed to complicate the task rather than enable it; participants did not understand how to use them, even after explanation. Reviews of workshop video footage and field notes revealed that participants did not refer to these to complete Activity 3. It was therefore determined that visuals and graphical written examples of *emotional binders for pleasure, engagement and meaning* could enable better understandings and support the location of those relevant to design concepts. Accordingly, Emotional Binder Sheets for pleasure, engagement and meaning were created as part of Design Tool 2 in future workshops, explained in detail in Section 7.5.

Additionally, the second Design Tool 2 template prompting question; ‘how do they make individuals feel physically and mentally supported in these instances?’, was found to double

up on information requested by the first; ‘In these new home experiences, what are the activities/emotional binders for pleasure, engagement or meaning?’. *Emotional binders for pleasure* were previously cited in the introductory presentation as those that made individuals feel physical support, and *emotional binders for engagement* and *meaning* were explained as those that provided emotional support through engaging and meaningful activities. Consequently, it was omitted from Design Tool 2 in future workshops.

### ***Expansion of the Home Happiness Theory into the Designing for Home Happiness Theory***

Changing the design strategy also revealed implications for the Home Happiness Theory. After further analysis, it became clear that the physical binder(s) within spontaneous positive family experiences could be understood as the design solution(s) in a design context that could include additional physical binders. For example, happy home designs could be the primary *interactive physical binders* that facilitated emotional binders for pleasure, engagement and meaning collectively through spontaneous positive family moments by supporting essential and nonessential home activities concurrently—establishing the *Designing for Home Happiness Theory*. For instance, a service design that connects and organises events for families with similar interests in a community could be considered a physical binder as it provides the supporting context for resulting interactions, which may include additional physical binders such as food. It was therefore not necessary to explore physical binders as separate attributes—conducted in subsequent Activity 4 with Design Tool 3 during pilot—when design solutions could be the primary physical binders for positive family experiences. Initial design conceptualisations could now happen with Design Tool 1, collectively addressing how individuals were drawn *together* (Design Tool 4), to *synchronise rest periods* (Design Tool 5) and emphasise meaningful moments (Design Tool 6)—previously tackled by the separate tools illustrated. Accordingly, this removed need for Design Tools 4–6. Furthermore, the pilot results showed that they were not well understood by participants, requiring extensive explanation from the facilitator, and therefore did not facilitate the final *detachment* stage for empathic design—previously explained in Section 6.3.1. Consequently, this removed the need for Design Tool 7 as it summarised key findings from Design Tools 4–6. Relatedly, it was also necessary to edit language under the ‘Opportunities for Design’ section on the persona hand-out for future workshops to reflect these new insights. For example, instead of suggesting that prospective designs could support



the presence of applicable physical binders for spontaneous positive family experiences, it was now important to emphasise that the design was the primary physical binder for these moments.

Moreover, it became clear the revised HHDT (Design Tool 1, Design Tool 2) fitted with *define* stages of the Double Diamond Design Process (Design Council, 2013) (see Section 2.4.2.1) by *defining* what shape the design could take (i.e. service or app) and how it could support happiness. Following the use of the HHDT, more practical dimensions such as identifying stakeholders, could be tackled in subsequent *develop* stages using service design methods. Through this, the HHDT began to show potential in providing complementary tools to service design approaches when ‘designing for home happiness’. Additionally, the accompanying SDHHTS (see Figure 6.12) was found to be unnecessary—participants did not refer to it throughout the pilot. This may have been due to the facilitator guiding and providing information for each activity, removing the need for additional direction. However, the decided reduction in design tools from seven to two in future workshops, supported by pilot findings, also removed the need for a steps sheet.

### *Service Design Tools as Complementary Approaches to HHDT*

Employing service design tools, such as an offerings map (see Figure 6.13), stakeholder map (see Figure 6.14) and customer journey map (see Figure 6.15), in Activity 9 appeared to run smoothly. Participants seemed to fully comprehend each tool’s expectations and did not require additional explanations to complete related exercises. Please see Figures 7.3–7.5 for Activity 9 example results.

**Offerings of Home Happiness Design**

| Similar Existing Designs                         | Selling Points and Limitations                                    | Unique Selling Points of Home Happiness Design                                 |
|--|---|--|
| OLIO - surplus food sharing                      | Reduction in waste food   | Sharing cooked food, learning Bulk buying for people who are home & money poor |
| Food Share - surplus food sharing                | Take surplus food - redistribute around country to people in need | Ditto  |
| Eatwith - people eating for others in their home | For more sophisticated sharing rather than needy London only      | Ditto  |
| lets lunch                                       | Networking power network with lunch                               | Ditto  |
| Meal sharing                                     | Hosts open up home, guests encouraged to bring gifts or chips in. | Ditto  |

How can a home happiness design differentiate itself from other designs with similar offerings?

Figure 7.3 – Example of Results Using Offerings Map Template During Activity 9 of Phase 3, Part 2 Pilot

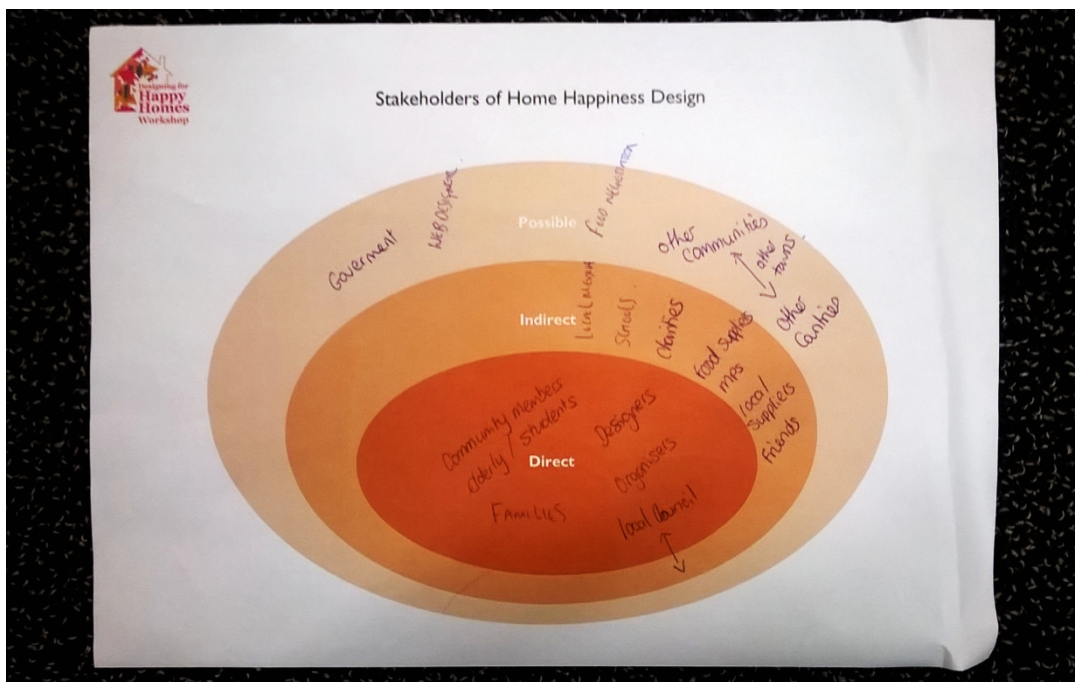


Figure 7.4 – Example of Results Using Stakeholder Map Template During Activity 9 of Phase 3, Part 2 Pilot

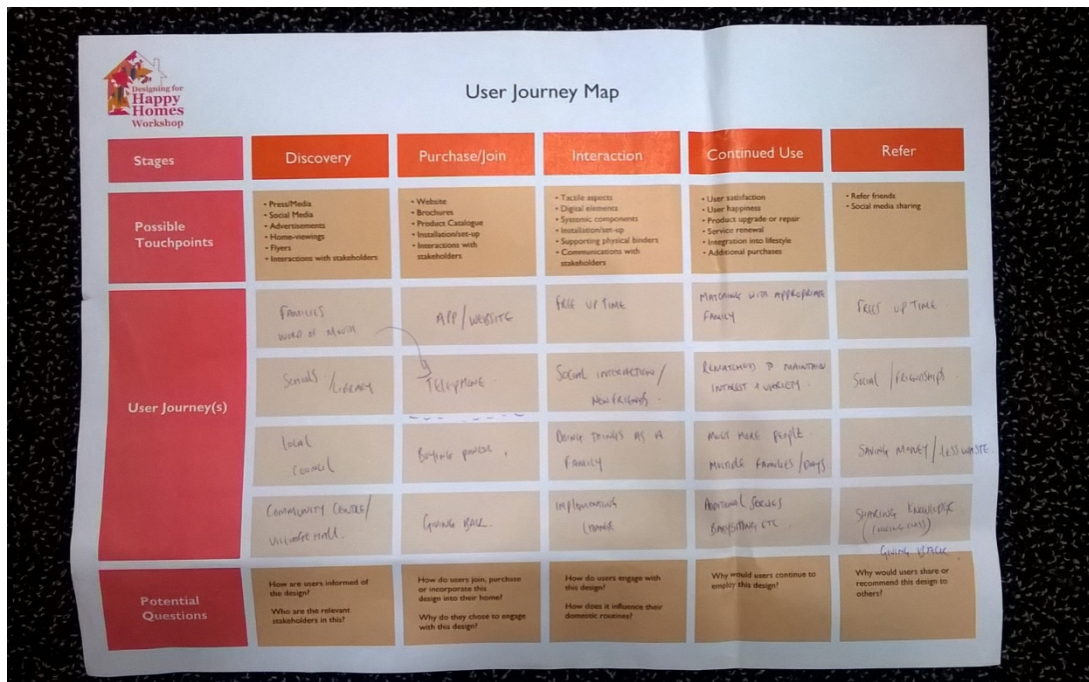


Figure 7.5 – Example of Results Using Customer Journey Map Template During Activity 9 of Phase 3, Part 2 Pilot

The service design tools allowed initial design concepts to be developed further. The offerings maps facilitated the identification of the designs’ unique selling points. Participant session observations and recorded video footage showed that individuals could rapidly find comparable designs using an internet search, comment on the selling points of these, and use this information to identify their designs’ original qualities. For example, one design team created a food sharing service that matched and divided cooking responsibilities between families with similar needs living locally to support additional family time, and share ingredients and recipe knowledge. In this, they used the offerings maps to locate similar service design propositions, such as Transition—a community-run allotment in Loughborough—to locate their concept’s original qualities.

Additionally, participants found the stakeholder map understandable and straight forward to use. Having understood their design proposition’s unique selling points, they were able to locate direct, indirect and possible stakeholders with ease. For instance, identified stakeholders for the food sharing service concept included families, community members, local food suppliers and charities. Figure 7.4 displays more examples. Correspondingly, participant observations during workshop and through recorded video footage indicated that they completed the customer journey map fluidly, using potential touchpoints and prompting questions listed on the template to guide its finalisation. Participants were

witnessed reading out questions to each other, which were followed by deep discussions on what the related answers were, such as ‘why potential users would continue to use the design?’. Furthermore, during presentations of design outcomes participants could elaborate on different stages (i.e. discovery, purchase/join) of the relevant customer journey:

“It would be a very small start-up... two women whose kids are friends... and expanding from there to knowledge sharing like cooking classes in the local community to sharing dishes and how you make it... maybe bulk buying...” (Participant A6)

“...ingredients so sharing them across a group of people and therefore saving money as well as time saved from cooking” (Participant A1)

### *Final Reflections and Next Steps*

To summarise, reviews of pilot workshop observations, field notes and feedback-form-comments indicated that participants experienced the greatest satisfaction with the service design tools. Furthermore, the service design tools displayed potential for progressing home happiness designs once initial design propositions were developed using HHDT. However, analysis of HHDT and corresponding activities revealed the need to simplify and modify these techniques to create a more effective design process. Accordingly, Design Tool 1 could be employed to conceptualise initial design concepts as the design concept could be considered the primary physical binder for spontaneous family experiences in a design context. Furthermore, through this it automatically supported subsequent components, *togetherness* and *synchronised rest periods*, and *emotional binders for pleasure, engagement and meaning*, removing the need for Design Tools 3–7. This led to the extension of the Home Happiness Theory (i.e. positive family experience models) into the *Designing for Home Happiness Theory*, in which designs could act as the physical binders of spontaneous positive family experiences by supporting both essential and nonessential home activities to facilitate home happiness. Consequently, Design Tool 1 required additional accompanying materials to enable a rapid means of combining different essential and nonessential home activities for brainstorming various design outcomes, such as the ENHAC. Furthermore, a simplified ENHAS would also facilitate this. Following this, Design Tool 2 could be employed to identify relevant *emotional binders for pleasure, engagement and meaning* supported by the

design concept, now to include illustrative Emotional Binder Sheets for each to assist this process.

This revised approach seemed to create a fluid transition to the use of service design tools. Having formally located emotional binders for pleasure, engagement and meaning supported by the design concept using Design Tool 2, this knowledge could facilitate the identification of its offerings (i.e. how it facilitates happiness) through the offerings map. Subsequently, relevant stakeholders could be identified using the stakeholder map. Collectively, these approaches (i.e. HHDT, offerings map and stakeholder map) could provide sufficient information to conceptualise the practical dimensions of resulting home happiness designs (i.e. how it is discovered and purchased/joined by users) enabling the completion of a customer journey map—the final service design tool to be employed. The next steps therefore involved applying these changes and launching the renewed workshop format and accompanying design tools.

## **7.5 Final Revisions and Testing**

Considering the pilot findings, Design Tool 1 and 2 were revised, and Design Tools 3–7 were omitted to create the DfHH. In this, ENHAC were developed and the ENHAS was simplified to be included as part of Design Tool 1, and three Emotional Binder Sheets were composed for Design Tool 2. Design Tool 1 template was renamed ‘Creating the Physical Binder(s): Designing for Home Happiness’ to accurately illustrate its purpose and its prompting question was amended to reflect this (see Figure 7.6).

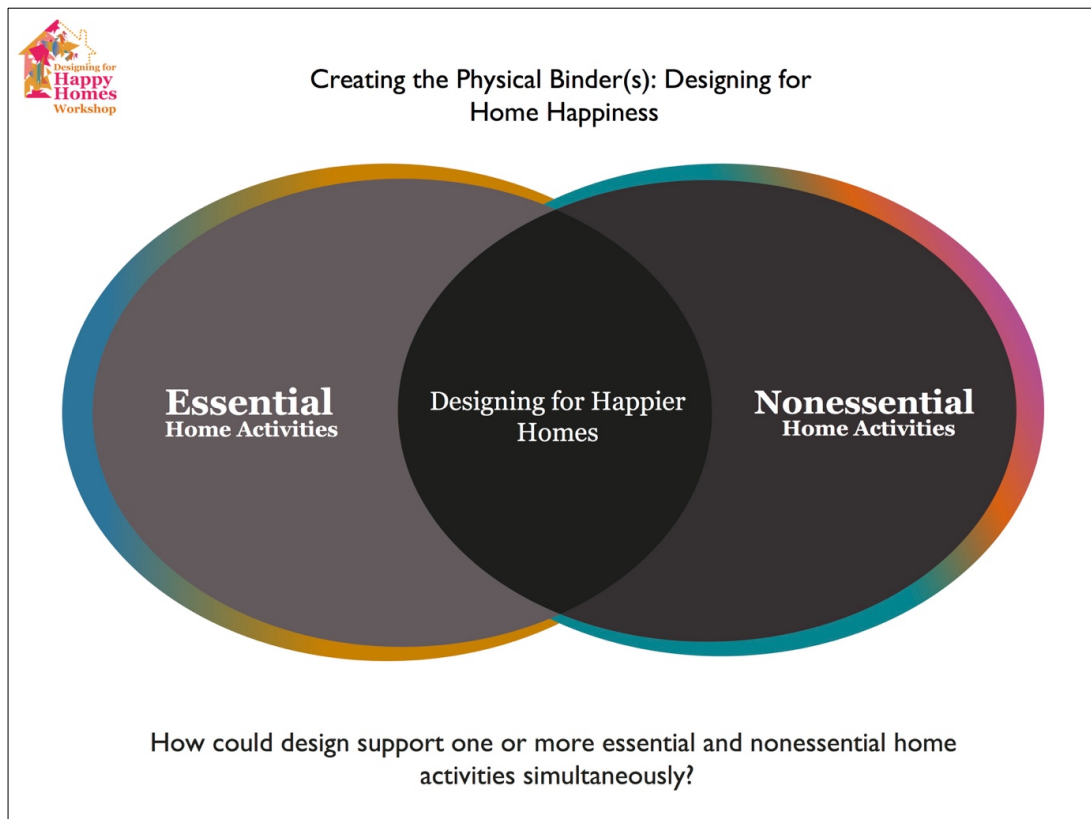


Figure 7.6 – Design Tool 1, Final Version, Developed During Phase 3, Part 2

Additionally, its colouration was adjusted to reflect the supporting ENHAC, creating visual continuity for easier comprehension. ENHAC were composed using colours schemes previously devised for essential home activities (i.e. blue and yellow) and nonessential home activities (i.e. green, red and purple) on the ENHAS. See Figure 7.7 for the revised ENHAS, employed as part of Design Tool 1 during Main Studies.



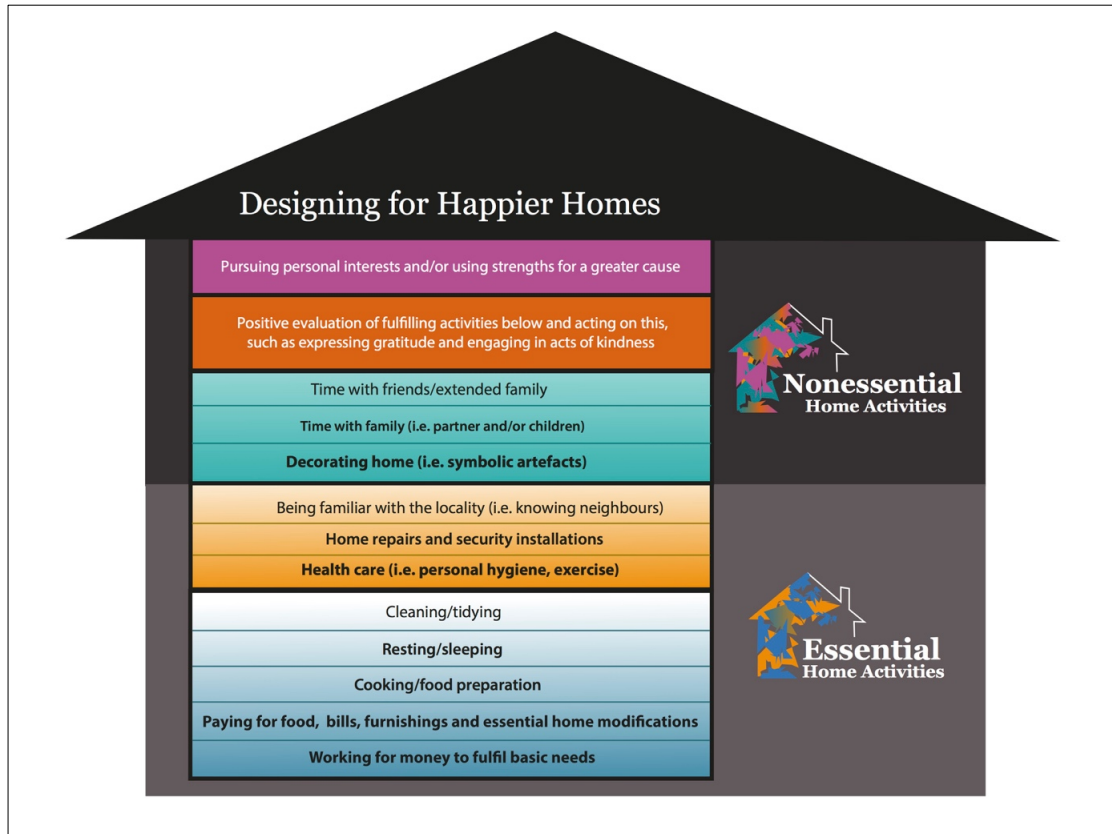


Figure 7.7 – Essential and Nonessential Home Activities Sheet (ENHAS), Final Version, Developed During Phase 3, Part 2

As previously suggested from pilot findings, this visual was amended to only include essential and nonessential home activities, segregated by colourations and logo designs that matched those employed for the upside of Essential (see Figure 7.8) and Nonessential Home Activities Cards (see Figure 7.9). This was to give participants a quick overview of essential and nonessential home activities to stimulate initial thinking. They could then physically match up different home activities and brainstorm possible supporting design concepts using the ENHAC.



Figure 7.8 – Upside of Essential Home Activities Cards Developed During Phase 3, Part 2



Figure 7.9 – Upside of Nonessential Home Activities Cards Developed During Phase 3, Part 2

Approximately half the ENHAC were divided into those that displayed essential home activities and the remaining depicted nonessential home actions. The underside of every card illustrated one home action in a house silhouette of the colour corresponding to its need grouping (i.e. blue for physiological needs). Additionally, those displaying nonessential home activities were given a grey background and those depicting essential home activities were given a white surrounding to visually segregate the home activities more clearly (see Figure 7.10).





Figure 7.10 – Sample of the Underside of Essential and Nonessential Home Activities Cards Developed During Phase 3, Part 2

Following this, Design Tool 2 was retitled ‘Exploring Emotional Binders: Identifying Interactions for Home Happiness’ to convey its aim appropriately and its prompting question was adjusted to reflect its revised objectives (see Figure 7.11).

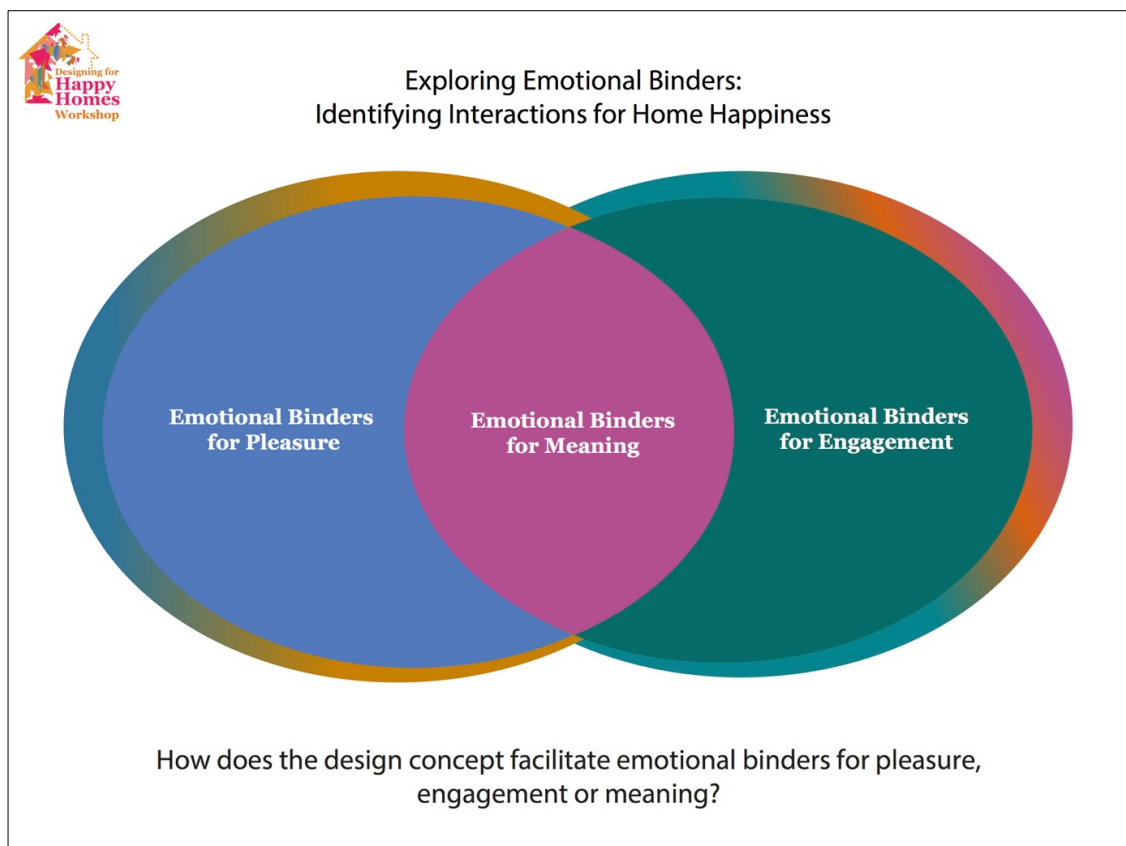


Figure 7.11 – Design Tool 2, Final Version, Developed During Phase 3, Part 2

Furthermore, the original appearance and language of Design Tool 2 was altered to match the accompanying Emotional Binder Sheets. For example, ‘activities for pleasure’ were now

referred to as ‘emotional binders for pleasure’, and so forth, to support concept comprehension and how materials related to each other; circle segments labelled emotional binders for meaning, engagement and pleasure were coloured purple, green and blue in relation to their representative Emotional Binder Sheets—discussed in detail in subsequent paragraphs. Additionally, an image of overlapping circles was employed in this instance to visually convey *emotional binders for meaning* as products of *emotional binders for pleasure* and *engagement* converging. This was intended to reference Seligman’s ‘authentic happiness’ theory; happiness as pleasure and engagement could collectively support happiness as meaning in the right circumstances.

The Emotional Binder Sheets each focused on one emotional binder type, using visuals and annotated examples. The images were selected from photographs of home life captured by Study 1 participants (see Chapter 4.5). One side of every Emotional Binder Sheet displayed imagery of its emotional binder category (i.e. pleasure, engagement, meaning) while the opposing demonstrated written examples. Furthermore, each Emotional Binder Sheet was differentiated by a colour that was used throughout HHDT to represent related home activities and home happiness needs. For example, purple was used to represent the Emotional Binder Sheet for Meaning (see Figures 7.12–7.13) as this also illustrated corresponding home activities (i.e. using strengths for others) (see Figure 7.7) satisfied during positive family experiences.

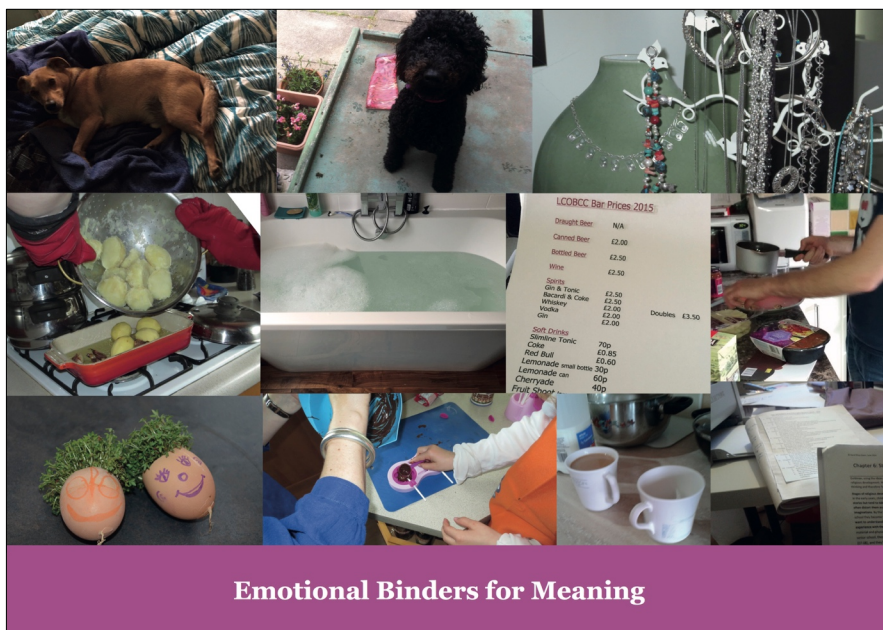


Figure 7.12 – Side 1 of Emotional Binder Sheet for Meaning Developed During Phase 3, Part 2



Figure 7.13 – Side 2 of Emotional Binder Sheet for Meaning Developed During Phase 3, Part 2

For similar reasons green was used to illustrate the Emotional Binder Sheet for Engagement (see Figure 7.14–7.15).



Figure 7.14 – Side 1 of Emotional Binder Sheet for Engagement Developed During Phase 3, Part 2



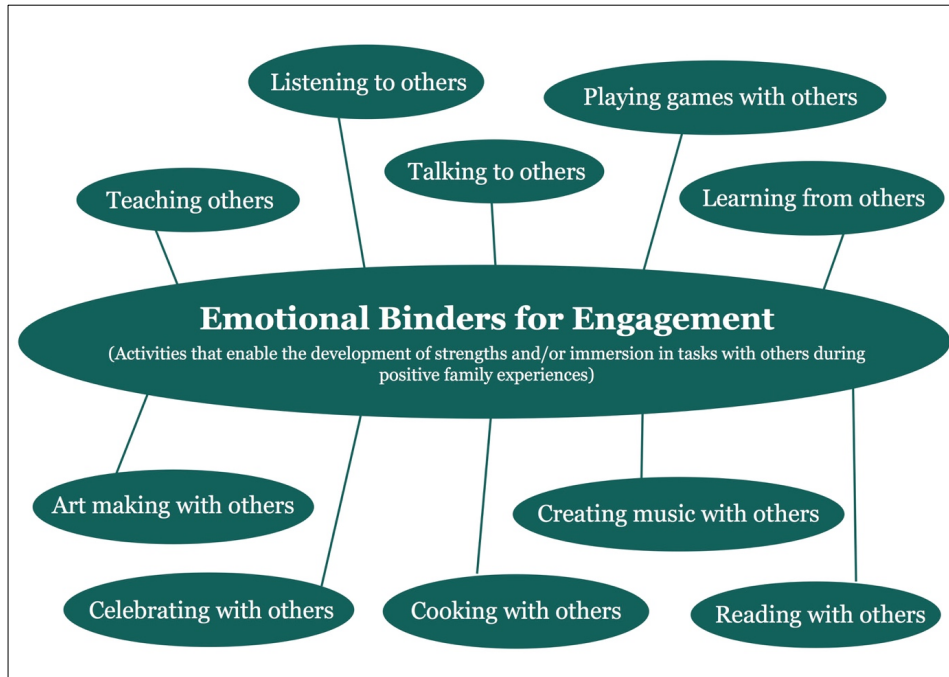


Figure 7.15 – Side 2 of Emotional Binder Sheet for Engagement Developed During Phase 3, Part 2

Lastly, blue was utilised in the Emotional Binder Sheet for Pleasure for the same rationale outlined for other Emotional Binder Sheets (see Figures 7.16–7.17).



Figure 7.16 – Side 1 of Emotional Binder Sheet for Pleasure Developed During Phase 3, Part 2

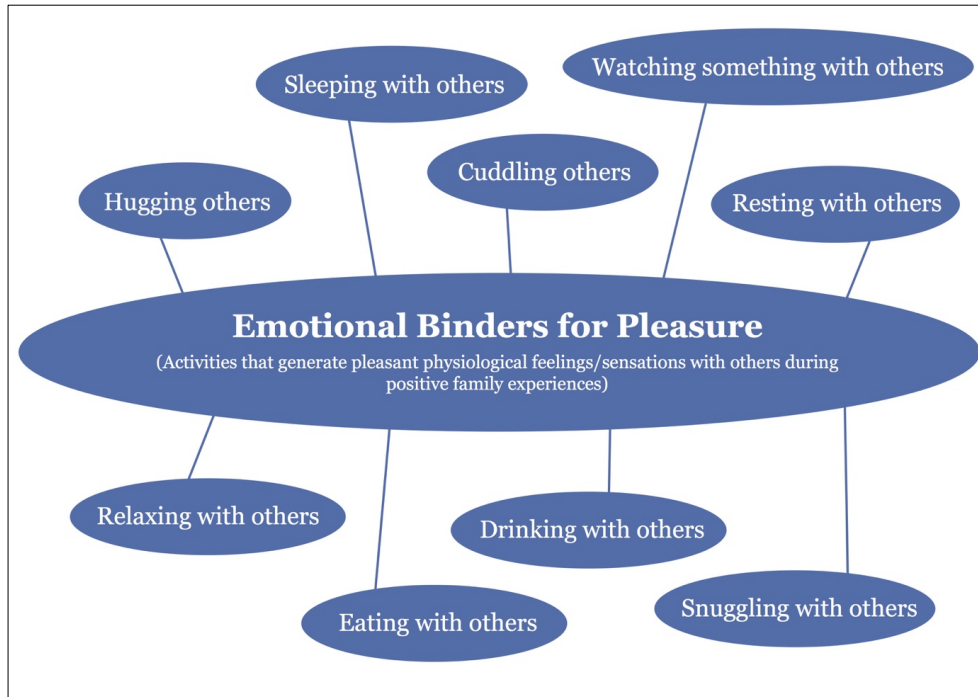


Figure 7.17 – Side 2 of Emotional Binder Sheet for Pleasure Developed During Phase 3, Part 2

Additionally, the persona used for the Main Studies pilot remained the same for use in the Main Studies with the exception of the ‘Opportunities for Design’ section (see bottom right-hand side box of Figure 7.18). This was rewritten to clearly convey that designs could be the *primary interactive physical binders* for spontaneous family experiences as opposed to pure facilitators of physical binders that led to these moments—as was the case in the previous persona version.

## THE PRAGMATIC PROVIDERS – The End Justifies the Means

*“Our lives revolve around laundry... laundry and food making... and clearing it up again! We could do with some more quality time together”*



### BACKGROUND

Sally and Harry are married with two young children. They live in a three-bedroom house in Surrey and commute into central London for work during the week. Due to high house prices in the surrounding area they were unable to purchase a property closer to their employment. However, they were happy to accept a slightly higher mortgage on their first home to be located in a safe area, relatively close to good schools for their children. As a result, they both work full-time moderate to long hours to provide a decent quality of life for the family in the future, spending little time in the home on weekdays. During the week they come home late and spend their remaining free time with their children after collecting them from childcare. Once the children are asleep, they tend to spend half an hour to an hour with each other in front of the television before going to bed.

Generally, housework is left for the weekend. At the weekend, Harry and Sally's domestic routines are also fairly regimented in order to meet the essential needs of their children and the home. The weekend is often taken up with left-over housework from during the week, and the remaining time is used for food preparation and general caring for the children. Being mindful of their finances, they spend much of their leisure time at home.

Sally (29) works as a customer services officer in central West London and Harry (31) is employed as an IT support engineer in Balham.

### MOTIVATIONS/VALUES:

- **Social harmony** – Time together is limited, so Sally and Harry will try to avoid disputes with each other and their children when possible. Additionally, as they are not living close to friends and family, they rely on each other a lot for support.
- **Teamwork** – Harry and Sally have a regular routine, and both value and appreciate each other's efforts in running the home.
- **Time efficiency** – Sally and Harry will reduce time spent on other endeavours when possible to increase family time, such as preparing quick meals and leaving laundry for the weekend.
- **Saving money** – Sally and Harry are very conscious about saving money on bills, groceries and other general expenses. They tend not to eat out and generally cook from home. However, sometimes they will treat themselves to a takeout when the children have gone to bed.
- **Quality family time** – During the week, Sally and Harry prioritise time with their children and each other for the remainder of the evenings.
- **Quiet time** – Sally and Harry really treasure the quiet time they have with each other after the children have gone to bed. This is usually spent watching TV as it's something they can both do together that is easily accessible and not too physically or mentally demanding.

### PAIN POINTS:

- **Surprise and needless expenses** – Sally and Harry are irritated when food is wasted, shopping deals are missed due to rushing and if electrical items or the heating is left on unnecessarily. Broken appliances and household repairs can also cause stress. To save time, they will hire someone to do the job if it is within budget. If not, they will research ways of fixing the problem themselves if the issue is urgent.
- **Household chores at the weekend** – Sally and Harry rarely have enough time to stay on top of household duties during the week. However, carrying these out at the weekend means there is limited family time.
- **Lack of time generally** – Harry and Sally generally feel that they do not have enough time for their children, themselves and with each other. Their preoccupation with ensuring the basic needs of the children and home are met can lead to an absence of quality family moments, which can occasionally lead to tension.
- **Limited money** – Sally and Harry, being early in their careers with a new mortgage and two young children, do not have much disposable income for home alternations, expensive outings with each other and their children. This can cause feelings of frustrations.
- **Strict routine** – With their busy schedules, there is not much room for deviation outside of the everyday routine. Certain activities like the children's bedtime preparations and the household chores can become monotonous.
- **Feelings of isolation** – Harry and Sally cannot visit relatives or friends often as they do not live locally. Additionally, due to their busy schedules, they have not had the opportunity to make friends with anyone living close by.

### OPPORTUNITIES FOR DESIGN:

Taking inspiration from Maslow's (1943) hierarchy of needs, design propositions could support happy home experiences by considering how essential home activities (i.e. cleaning, preparing food) could facilitate nonessential home actions (i.e. time with family or friends) simultaneously and vice versa.

Design (i.e. service design, products or product-service-systems), acting as the physical binder for spontaneous positive family experiences, could employ pre-existing physical aspects of the home environment (i.e. furniture, food) or surrounding community (i.e. neighbours) to facilitate happy home experiences.

Furthermore, potential designs could include a way of capturing resulting positive moments – by employing photographs, symbolic artefacts for example – in order to encourage future similar instances and make these pleasant interactions part of the domestic routine.

### KEY VARIABLES

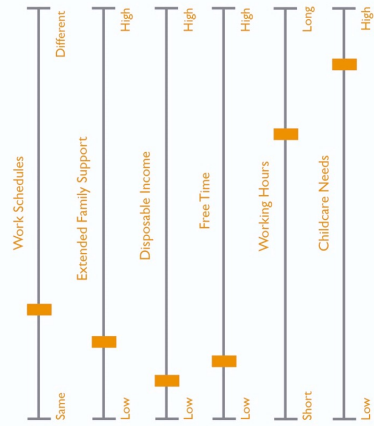



Figure 7.18 – Persona Hand-out, Final Version, Developed During Phase 3, Part 2

In this way, the revised HHDT were aimed at facilitating the creation of home happiness designs that were not prescriptive; they created contexts for home happiness.

Furthermore, the presentation at the session's beginning, elaborating on the key workshop concepts, retained a similar format to that used in the pilot. However, greater attention was given to explaining emotional and physical binders for pleasure, engagement and meaning through additional exemplary visuals and accompanying narration, extending its total time from 10 to 20 minutes. To support further concept understanding, 10 minutes for questions was added following the presentation, and Activity 1 slide (Sharing of Positive Family Experiences) was revised to illustrate prompting questions labelled by the idea they investigated (see Figure 7.19).



## **Sharing Positive Home Experiences**

**Emotional Binder(s) – What were you doing?**  
**Type of Emotional Binder(s) (i.e. pleasure, engagement and/or meaning)**  
How were you feeling physically and emotionally?

**Physical Binder(s) – What objects/environments facilitated and/or enhanced your experience?**  
**Type of Positive Family Experience**  
Would you consider this scenario planned, spontaneous, routine or a combination, and why?

*Figure 7.19 – Revised Slide for Activity 1 (Sharing Positive Home Experiences)*

Further alterations to slides for activities included supplementary visuals that illustrated the physical binder for spontaneous family experiences as the design proposition, succeeding the Activity 1 (Sharing Positive Home Experiences) slide prompter (see Appendix AD). Additionally, service design tools that had been previously been employed during Activity 9 during the pilot (see Table 6.3) were now referred to as separate activities as this gave a more accurate representation of the workshop process. Following these adjustments, the renewed



*Designing for Happy Homes Workshop* lasted approximately 4 hours and 45 minutes in total, including a 15-minute break and 1-hour lunch respite.

Subsequently, the emergent DfHH was trialled with a colleague, achieving the desired outcomes; the participant appeared to understand the theory and design tools comprehensively, using them to create a service design concept that theoretically facilitated home happiness—it connected families with opposing skill-sets and needs to support knowledge exchange and acts of kindness. Given this immediate success, it was decided to test the DfHH in its full capacity through Main Study 1 and Main Study 2. The **finalised structure for the DfHH**, including tools and procedures, is outlined in Table 7.5—also see Appendix AE for workshop protocol.

Table 7.5 – Tasks and Procedures of Designing for Happy Homes Framework, Final Version

| Task  | Procedure   | Tools/Techniques  |
|---|---|---|
| <b>Introduction</b>   | <ol style="list-style-type: none"> <li>1. Facilitator to explain the Designing for Home Happiness Theory and background research to participants using computer-based presentation (max. 20 mins).</li> <li>2. Facilitator to allow time for questions after presentation (max. 10 mins).</li> </ol>                                    | <ul style="list-style-type: none"> <li>• Oral presentation</li> <li>• Computer based presentation</li> </ul>  |
| <b>Activity 1.</b><br>Sharing of positive home experiences with others                | <p>Workshop preparation.</p> <ol style="list-style-type: none"> <li>1. Participants to reflect on a positive family experience at home (Service Safari).</li> <li>2. Participants to share these moments individually with the group while answering prompting questions depicted onscreen (see Figure 7.19) (max. 25 mins).</li> </ol> | <ul style="list-style-type: none"> <li>• Service Safari (modified for home)</li> <li>• Prompting questions displayed on projector screen</li> </ul> |
| <b>Activity 2.</b><br>Reading persona   | <ol style="list-style-type: none"> <li>1. Facilitator to split participants into two design teams and give each a persona to read (see Figure 7.18) (max. 5 mins).</li> </ol>   | <ul style="list-style-type: none"> <li>• Persona</li> </ul>   |
| <b>Activity 3.</b><br>Creating the Physical Binder(s):<br>Designing for Happier Homes | <ol style="list-style-type: none"> <li>1. Facilitator to introduce and supply Design Tool I (see Figures 7.6–7.10) (max. 5 mins).</li> <li>2. Participants to brainstorm different design propositions using Design Tool I (max. 55 mins).</li> </ol>   | <ul style="list-style-type: none"> <li>• Design Tool I (template, ENHAS, ENHAS)</li> <li>• Visual of Design Tool I on projector screen</li> </ul>   |



|  |   |   |
|--|---|---|
| <p><b>Activity 4.</b><br/>Exploring Emotional Binders: Identifying Interactions for Home Happiness</p> | <p>1. Facilitator to present and issue Design Tool 2 (see Figures 7.11–7.17) to design teams (max. 5 mins).</p> <p>2. Design teams to use Design Tool 2 to evaluate and develop design concepts (max. 15 mins).</p>                             | <ul style="list-style-type: none"> <li>• Design Tool 2 (template, Emotional Binders Sheets x3—for pleasure, engagement and meaning)</li> <li>• Visual of Design Tool 2 on projector screen</li> </ul> |
| <p><b>Activity 5.</b><br/>Offerings Map</p>  | <p>1. Facilitator to introduce and give offerings map (see Figure 6.13) to each design team (max. 5 mins).</p> <p>2. Design teams to use offerings map to compare design concepts to pre-existing similar designs (max. 20 mins).</p>           | <ul style="list-style-type: none"> <li>• Offerings Map Template</li> <li>• Prompting questions displayed on projector screen</li> </ul>   |
| <p><b>Activity 6.</b><br/>Stakeholder Map</p>  | <p>1. Facilitator to explain and supply stakeholder map (see Figure 6.14) to design teams (max. 5 mins).</p> <p>2. Design teams to use stakeholder map to identify stakeholders for design concept (max. 15 mins).</p>                          | <ul style="list-style-type: none"> <li>• Stakeholder Map Template</li> <li>• Prompting questions displayed on projector screen</li> </ul>   |
| <p><b>Activity 7.</b><br/>Customer Journey Map</p>   | <p>1. Facilitator to explain and provide customer journey map (see Figure 6.15) to design teams (max. 5 mins).</p> <p>2. Design teams to use customer journey map to illustrate a customer journey for their design concept (max. 20 mins).</p> | <ul style="list-style-type: none"> <li>• Customer Journey Map Template</li> <li>• Prompting questions displayed on projector screen</li> </ul>  |
| <p><b>Presentation of Design Outcomes</b></p>  | <p>1. Design teams to present their final design solution using results from design tools and/or additional sketches and annotations for reference and illustrative purposes (max. 15 mins).</p>  | <ul style="list-style-type: none"> <li>• Oral presentation</li> <li>• Completed design tools (i.e. customer journey map)</li> <li>• Sketches</li> </ul>   |

Collectively, the final version of DfHH followed the Double Diamond Design Process (Design Council, 2005). Please see Figure 7.20 for a visualisation of this.

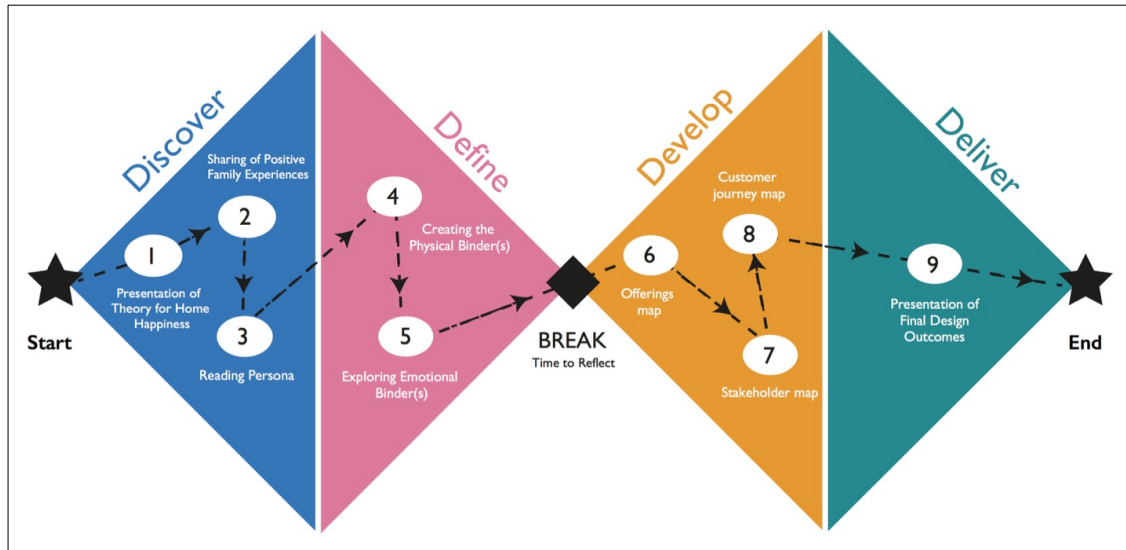


Figure 7.20 – Overview of Designing for Happy Homes Framework using Double Diamond Design Process (Design Council, 2005)

## 7.6 Main Study 1 and 2

Main Study 1 and 2 followed the finalised workshop process and design tools outlined in Table 7.5. Participants were divided into two design teams to complete the workshop activities, affording two instances to simultaneously gather and compare collected data results. The recruitment process for Main Studies included identifying and contacting design experts through email using criterion outlined in Section 3.7. Please see Figure 7.21 for an example of the final layout for Main Study 1 workshop and Figures 7.22–7.23 for visuals of work in-progress during Main Study 2.



Figure 7.21 – Final Workshop Setup for Main Study 1



Figure 7.22 – Work In-progress During Main Study 2

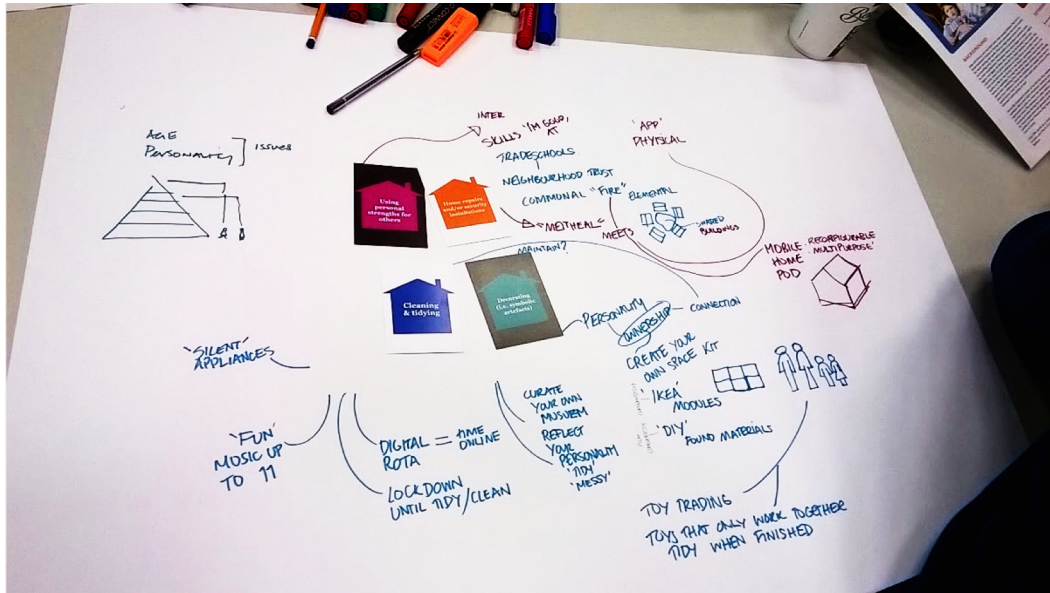


Figure 7.23 – Work In-progress During Main Study 2

### 7.6.1 Results & Findings

The use of design tools followed an almost identical pattern in both Main Studies. Results were consolidated to verify an appropriate process, and design tools for DfHH; subsequent paragraphs report on both findings collectively unless otherwise stated. Generally, Main Studies' findings revealed qualities—ability to build empathy for example—in the tools and process that assisted participants in 'designing for home happiness'. Additionally, the design tools and process appeared to demonstrate transferability in different contexts. Moreover, a compatibility between HHDT and service design approaches for 'designing for home happiness' was illustrated. The following sections discuss this in detail.

#### 7.6.1.1 Coherency and Successful Application of Designing for Home Happiness Theory

Overall, the *Designing for Home Happiness Theory* appeared to be comprehended by participants; its presentation and design tools seemed to be effective in facilitating initial ideations for home happiness designs and understandings of how design could support home happiness. For example, narration of the *Designing for Home Happiness Theory* in the introduction to the workshops appeared to create adequate understanding among participants. No questions were asked during question time in Main Study 1. Furthermore, the introductory presentation appeared to encouraged engagement and interest amongst designers in Main Study 2; following its rendition, a conversation for future research

opportunities naturally ensued without prompting, such as how the *Designing for Home Happiness Theory* might be employed to support happiness for those living alone. Additionally, the importance of promoting a happy home when children are young to facilitate adolescent happiness was highlighted. This was particularly relevant to the persona that followed as this featured a family with young children. Corresponding comments included:

“There’s a lot that resonates with our life at home when our children were smaller. But now they’re 18 and 20 the same kind of unit is there... there’s a kind of structure without them realising it that keeps them happy and secure” (Participant A5, Main Study 2)

This indicated that positive family experiences in early childhood could support future home happiness as time together becomes more subject to negotiation when the children become young adults. Evidently, designs for unhappy homes with adolescent children face greater obstacles in supporting happiness, illustrating the importance of ‘designing for home happiness’ with young families.

Lastly, very few questions occurred during the deployment of the HHDT during Activity 4 and Activity 5; review of video recordings and field notes implied participants understood the task objectives and were confident using corresponding tools. Individuals appeared engaged during activities; they exhibited deep concentration through focused gazes on emerging ideational material and ensuing conversations were reflective:

“The kids just need to be able to sit and do something while their parents are getting on with everything else but that makes them feel like they’re contributing” (Participant A2, Main Study 1)

“...if they don’t know people is there some sort of service type innovation where you can connect neighbours?” (Participant A3, Main Study 1)

### ***Building Empathy—Contextualising the Theory with Personal, and Speculative User Experiences***

Collectively, the presentation of the Designing for Home Happiness Theory, Activity 1 (Sharing of Positive Family Experiences), Activity 2 (Reading the Persona) and subsequent design activities (Activities 3 to 8) appeared to follow the four phases of Kouprie and Visser’s

empathy framework (i.e. *discovery, immersion, connection, detachment*)—explained in Section 6.3.1. The presentation of the theory, including real life examples, appeared to support the *discovery* stage. Reviews of video footage showed designers engaged by content narrated; eyes were focused on the screen and most smiled during the discussion of user experiences, suggesting some relatedness. In this way, the presentation appeared to encourage a *willingness* in designers to immerse themselves in subsequent workshop activities. The following Activity 1, Sharing of Positive Family Experiences, seemed to enable both *immersion* and *connection* stages; designers began to wander in and connect with the worlds of prospective users as they explored what made their previous home moments happy:

“...we sat in our lounge... just enjoyed eating in our brand-new home...to share it with my parents was really lovely... There’s something about sitting and eating with people that makes it that bit more special” (Participant A2, Main Study 1)

Generally, all individuals could quickly identify key physical binders that supported their positive family experiences, such as good food. Evidently, Activity 1 appeared to sensitise participants to positive family moments including why they were meaningful and what supported them, contextualising the theory to their own experiences. Consequently, they could more readily understand the persona family’s difficulties, introduced in following Activity 2. Through this, Activity 2 also assisted the *immersion* and *connection* stages. The persona appeared to provide thought provoking and believable content to focus designers’ efforts in ‘designing for home happiness’—evidenced by conversations that ensued:

“There’s no sense that they live in a community...He’s an IT support engineer so in principle its not a big deal for him to offer his skills to someone else next door (Participant A2, Main Study 2)

Upon reflection, most of the *immersion* process had already been conducted during Study 1 semi-structured interviews, the findings of which were used to create the persona. Due to time restrictions, it was necessary to accelerate this proportion of the empathy process; the persona enabled a comprehensive snapshot of prospective user lifestyles to allow designers to gain a rapid understanding of their significant needs. Following this, Activities 3 to 7 appeared to successfully facilitate the *detachment* phase; participants used reflections of their

homes experiences and the persona family to direct design outcomes using related design tools—discussed in subsequent sections.

### *HHDT as ‘Designing for Home Happiness’ Facilitators*

Overall, the HHDT appeared to be successful in supporting the creation of home happiness designs. The instructions for Design Tool 1; ‘how could design support one or more essential and nonessential home activities simultaneously?’, seemed to offer appropriate structure without hindering the design process. The *Designing for Home Happiness Theory* was embedded in Design Tool 1—employed in Activity 4 (Creating the Physical Binder: Designing for Happy Homes). Consequently, by brainstorming design concepts that could facilitate both essential and nonessential home activities using the ENHAC and ENHAS, designers were creating designs (physical binders) that could theoretically initiate spontaneous positive family experiences in unhappy homes. Through this, designers did not need to spend additional time trying to understand all aspects of the theory before designing. This enabled a form of *concept combination* most conducive to creative thinking called *concept integration* (Nagai and Taura, 2006) where essential and nonessential home activities were *integrated* into emerging design propositions. Additionally, the appearance of the HHDT, such as mainly graphical appearance with limited type, appeared to support their usage during Main Studies’ workshops; designers became quickly engaged in corresponding tasks and did not require further instruction following their introduction. Moreover, the ENHAC enabled designers to quickly pair-up and brainstorm concepts employing different home activities in a tactile and interactive fashion. Some design teams utilised post-its and recorded annotated ideas on paper around the cards (see Figure 7.24), while others employed pictorial sketches (see Figure 7.23).



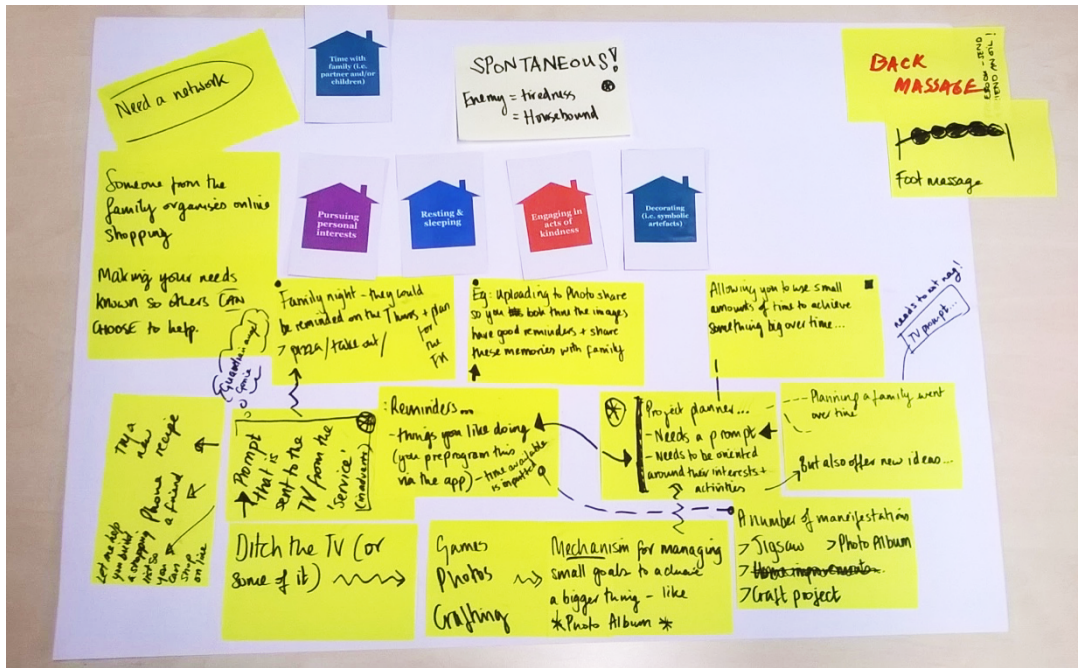


Figure 7.24 – Work In-progress during Main Study 1

Collectively, the ENHAC acting as ideational prompts in which possible design concepts that supported *both* essential and nonessential home activities concurrently could be explored on the surrounding paper. Consequently, resulting propositions, at least in theory, had a strong possibility of motivating happiness in unhappy homes—discussed in detail in forthcoming Section 7.6.1.3. Furthermore, subsequent Design Tool 2 (see Figures 7.11–7.17) provided exemplary imagery and descriptions of home happiness aspects (i.e. emotional binders for pleasure, engagement and meaning) that seemed to allow designers to link and embed these into emerging design propositions, as evidenced through observed Activity 4 conversations:

“That’s meaning. I was thinking that activity covers both [meaning and engagement]” (Participant A6, Main Study 2)

“It could include learning something new...that’s engagement” (Participant A5, Main Study 2)

Resultantly, all emerging design concepts clearly supported *emotional binders for pleasure, engagement and meaning*. For example, one design team created a service design linking family and friends to food suppliers providing home deliveries of seasonal tapas—some prepared and unprepared—to support sharing and making with others. In this instance,



*emotional binders for pleasure* were facilitated through the eating, drinking and food preparation activities; *emotional binders for engagement* were provided through ensuing social interactions; *emotional binders for meaning* could occur through sharing responsibility in planning and orchestrating corresponding events.

#### **7.6.1.2 Service Design Tools as Complementary Approaches within the Designing for Home Happiness Framework and Implications for Service Design**

Using the HHDT enabled initial conceptualisations of home happiness designs, such as what form they would take, what essential and nonessential home activities they supported, and how they facilitated home happiness. Service design tools were then subsequently employed during Activity, 6, 8 and 7 to: identify relevant stakeholders, how design concepts differentiated from similar pre-existing designs, and how users could find, purchase and use them. Overall, results indicated that the service design tools were supportive in creating home happiness designs with the HHDT. Having employed the HHDT to conceptualise initial design propositions and locate how they supported home happiness, the subsequent service design tool, offerings map, prompted designers to research comparable existing designs, list their limitations and selling points, and use these findings to illustrate and develop their design's offerings. In this manner, the HHDT, particularly the Emotional Binder Sheets employed in Activity 4, facilitated the offerings map's completion as it enabled deeper understanding of how home happiness designs could support happiness. In Activity 5 (Offerings Map), designers could then more easily identify its *offerings*, such as how their concept differed/could compete with other corresponding designs—how it facilitated long-term happiness for example. For instance, one design team used the offerings map template to locate 'Meals on Wheels' as a comparable proposition, its selling points—such as tackling community loneliness—and how their design compared. Some related reflections included that their proposition, “using creative acts to encourage children to engage with the local community”, engaged the whole family regardless of abilities and encouraged giving/sharing between households. See Figure 7.25 for the full list of their located design offerings.

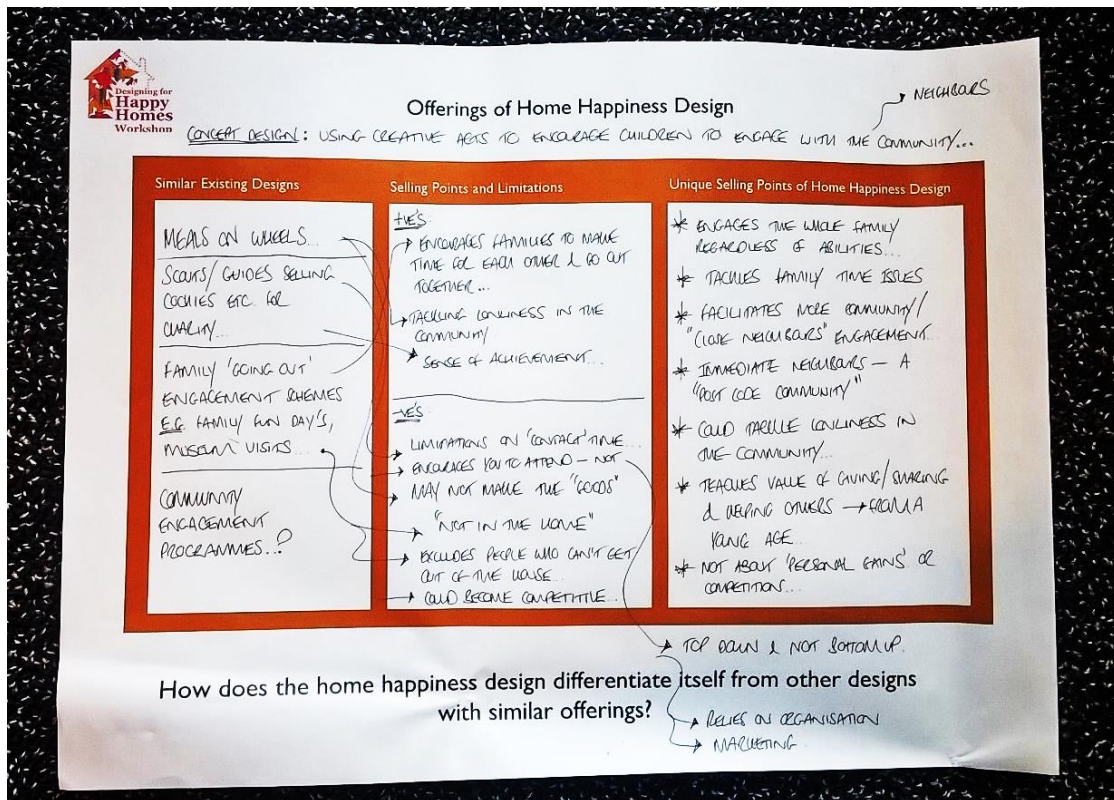


Figure 7.25 – Completed Offerings Map from Main Study 1

Resultantly, design teams employed the offerings map to develop their design propositions further, using related tasks as prompts for discussion:

“How does it actually work?” (Participant A1, Main Study 2)

“It calculates your enjoyment of the task right now rather than completion because all the ones now are about completion” (Participant A1, Main Study 2)

Subsequently, the stakeholder map was introduced in Activity 6 in which designers were prompted to locate all the direct, indirect and possible individuals responsible for launching, interacting with and maintaining their happy home design concept. See Figure 7.26 for a completed example.

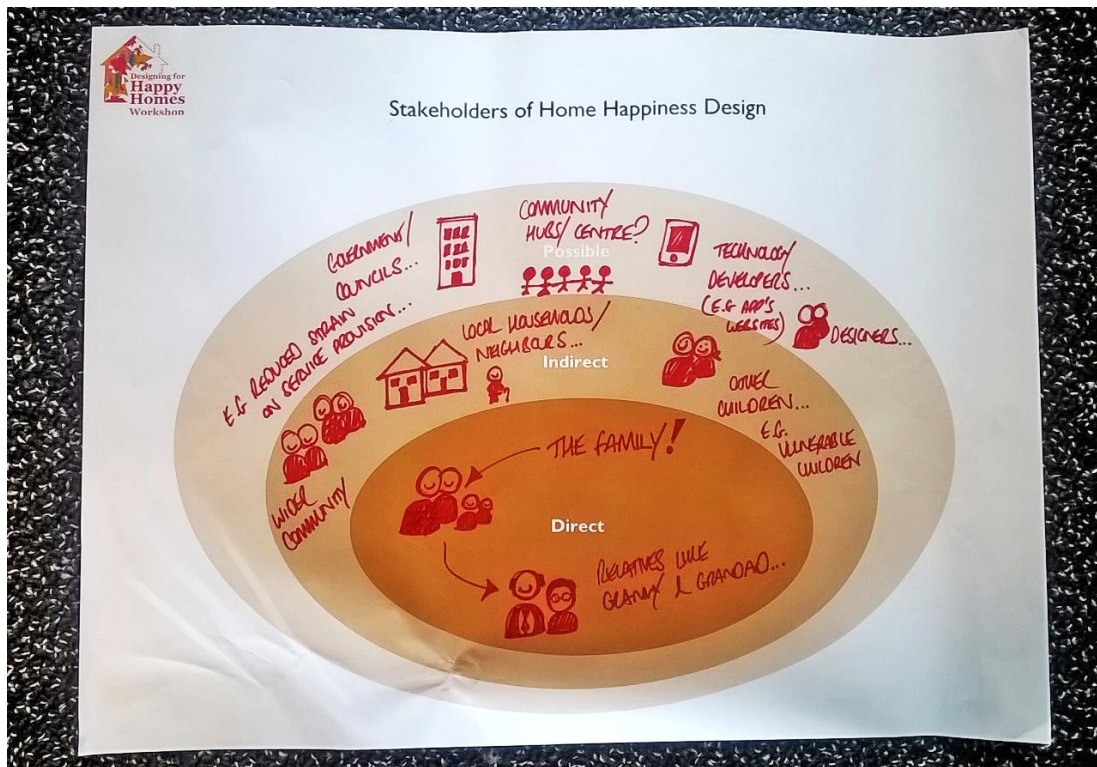


Figure 7.26 – Completed Stakeholder Map from Main Study 2

Following a similar process to the pilot, participants could identify all relevant stakeholders efficiently. Resulting discussions appeared beneficial in advancing the technicalities of design concepts, such as who would provide supplies for and/or sustain it. Furthermore, minimal explanations were required after the tool’s introduction, and it appeared to facilitate the completion of Activity 7 (Customer Journey Map). For example, one design team identified suppliers of pre-existing digital platforms (i.e. Apple Photo Sharing) and websites (i.e. BBC Good Food) as indirect stakeholders in Activity 6 that could support family activities suggested by their service concept. During the completion of Activity 7 they advanced these ideas further by assessing that the presentation of these service provider activities should be personalised to family/everyone’s needs:

“You want it to be like a friend calling you... it’s just selecting all the things that make you feel good, and it can suggest similar things at a later point in time... so it’s about you and not anyone else” (Participant A1, Main Study 1)

“So, feeding it the right information is important” (Participant A6, Main Study 1)



In this way, Activity 6 encouraged the identification of available platforms/individuals/companies that could support the concept, and Activity 7 prompted designers to consider how this would be achieved with users' needs in mind—creating a strong basis for design rationales. Additionally, participants did not require further assistance completing the customer journey map and appeared confident using it. The customer journey map led to fresh developments into how each design concept was discovered, joined/purchased, used and recommended to others—such as the importance of using inclusive 'discovery' approaches (i.e. printed advertisements as well as digital) to widen audience scope. See Figure 7.27 for a completed customer journey map example.

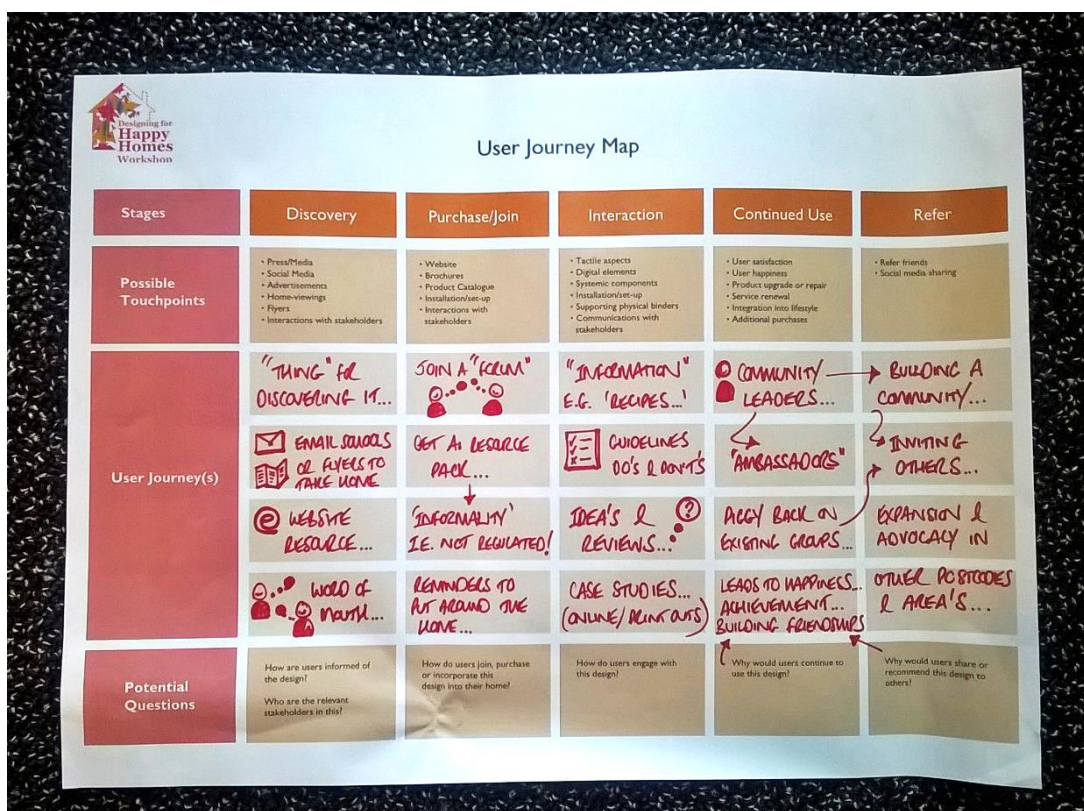


Figure 7.27 – Completed Customer Journey Map from Main Study 1

Consequently, the service design tools appeared to encourage designers to revisit, reflect on and further develop aspects of their concepts as each was employed, which led Main Studies' workshops to follow an iterative process. Given the appropriateness of resulting designs, discussed in detail in Section 7.6.1.3, these service design approaches seemed to support the development of home happiness designs through their facilitation of continued evaluation

and systemic thinking. Overall, these service design tools proved to be suitable in accompanying the HHDT, as part of the DfHH.

The DfHH combined service design tools with HHDT that developed from the results (i.e. Home Happiness Theory) of using alternative methods (i.e. art therapy techniques) (see Sections 5.5.1.3–5.5.1.8) seemingly more appropriate for deeply exploring subjective experiences than those currently available to Service Design (i.e. creative methods) (see Section 2.5.2). The final DfHH therefore appeared to provide service designers with a new creative method for directly ‘designing for home happiness’, not possible through present creative methods. Furthermore, as encouraging activities for *long-term happiness* can support more sustainable practices (Escobar-Tello, 2016), the DfHH also appeared to offer service designers a means of promoting more sustainable lifestyles through ‘designing for home happiness’.

### 7.6.1.3 Home Happiness Design Outcomes and Implications for Designing for Home Happiness

Generally, resulting designs by designers from the DfHH indicated that it facilitated the creation of home happiness designs supportive of home happiness for various people and homes simultaneously. See summarised details of outcomes below in Table 7.6:

Table 7.6 – Home Happiness Designs Resulting from Main Studies’ Workshops

| Design                             | Description  |
|------------------------------------|--|
| Digital add-on Service Design      | A service design that compiles personal preferences, such as hobbies, interests and aspirations, onto a digital platform that synchs with an individual’s television and phone through a sign-up system. It provides pop-ups reminders on these devices of activities either planned or highlighted as ‘of interest’ when completing a profile on the online website. The accompanying app helps users to plan and manage projects with others, namely family, and rate how they went while providing personalised feeds for ideas on new activities relevant to their interests, such as links to recipe sites. |
| Tapas Home Delivery Service Design | A service design available through subscription connecting families and friends with local producers of tapas dishes who provide home deliveries every week or month to encourage food sharing and social interaction during meal times. The level of preparedness and types of food can be specified online when ordering to accommodate varying time availabilities and preferences of individuals. The dishes are also seasonal to promote consumption of in-season food.   |

|  |   |
|--|---|
| <p>'Giggleometer' PSS</p>  | <p>A PSS that is built into neighbourhood home systems, which enables household tasks to be inputted, completed and recorded by family members. It documents individuals' enjoyment of tasks as well as the household's progress by providing features (i.e. scale measures) for people to record their feelings after relevant activities are finalised and to mark them as complete. These results can be shared with other homes in the area, and events are arranged or suggested by community members to encourage households to share tips on tasks and to take part in competitions (i.e. the neighbourhood's cleanest family). Furthermore, activities can be curated to suite the current school curriculum and season.</p>  |
| <p>Social Innovation for Connecting Households Through Giving and Creating</p> | <p>A community driven organisation that facilitates creation and sharing of goods, such as food and crafts, between neighbours by organising these exchanges and supplying information and ideas for related activities to interested households. This includes an online forum where community members describe previous positive experiences and swap knowledge for new collaborative tasks. Additionally, there is a resource pack that is downloadable or available through an app that allows interested individuals to explore different possibilities and previous success stories before deciding to get involved. This initiative is meant as a mediator for people to understand the true needs of their community. For example, by encouraging interactions through goods exchanges, a platform is created for neighbours to communicate other ways in which they could help each other.</p> |

All resulting designs were seemingly adjustable to needs and preferences of users. For example, the 'Giggleometer' facilitated parents' and children's happiness simultaneously by transforming necessary tasks into enjoyable learning experiences for the children and supporting their completion for the adults. Additionally, it presented potential for increasing community happiness by providing a mediating tool for communication between neighbours and the locality through competition-based activities and meet-up events to swap related knowledge. This appeared due to how the design concepts were initially conceived; generalised essential and nonessential home activities, such as cleaning/tidying and time with extended family, were employed using the ENHAC to prompt designs supportive of these concurrently. Following this process, resulting designs appeared to create supporting contexts for these activities where each could be personalised to different household and community needs—assuming the 'working for money to fulfil basic needs' home action also included completing work in a broader sense, such as reporting to the social welfare office to collect one's maintenance allowance. Given this, if the persona was composed to reflect targeted users, including significant needs, the DfHH appeared transferable to other UK home contexts and, perhaps, other Western countries as this workshop obtained similar findings when tested in an Irish context. Notably, given time and resources available, resulting designs were still very speculative in nature and could only be theorised as supporting the long-term

happiness of multiple individuals, households and communities through their identified compatibility with the *Designing for Home Happiness Theory* (see Appendix W for sample of related template analysis).

Admittedly, the Study 1 sample used to identify essential (survival) and nonessential (happiness) home activities in HHDT, forming the basis of all home happiness designs, was relatively small (13 participants in 10 UK home-owning families) and contextually based in the UK within professional middle-class households (see Section 4.3). Nonetheless, resulting designs could still be relevant for different social groups and contexts outside the UK. This home activities list was not understood to be exhaustive and intended to only cover the most prominent household activities for survival and happiness, the importance of which could vary in different social contexts, such as working-class. Assuming that everyone has core fundamental needs that motivate their behaviour (Maslow, 1943), the most significant needs for home happiness and survival could be identified and supported by locating participants' most apparent home activities and facilitating these. Furthermore, aligning the most common home activities against Maslow's Needs informed a generic list of important home actions for survival and happiness to create the HHDT, improving emerging home happiness designs' contextual transferability. Notably, Maslow's Needs may not be compatible in collective societies as it was originally developed using US participants (Gambrel and Cianci, 2003). If 'designing for home happiness' outside of a Western context, it could be necessary to employ a needs pyramid reflective of collective cultures to modify HHDT accordingly. Consequently, it could only be theorised that the DfHH could be repeated with similar results in Western individualistic countries.

## **7.7 Conclusions**

Overall, the DfHH appeared to be effective at facilitating 'designing for home happiness'. All resulting design concepts seemed to emulate the *Designing for Home Happiness Theory*; they, acting as physical binders, were found to support *emotional binders for pleasure*, and *emotional binders for engagement and meaning* by fulfilling basic and psychological needs concurrently (see Appendix W). Various workshop features, such as facilitation of user empathy, provision of suitable design tools employing the theory, and complementary service design approaches, appeared to enable this.

### *Facilitating Empathy in the Design Process*

Introductory and warm-up tasks provided suitable sensitisation to common unhappy home issues through use of a persona and reflective exercise on personal home experiences. Designers seemed to connect elements of the theory to their personal home lives through this process, accurately naming components of their home moments in relation to the theory in some cases. Furthermore, the DfHH appeared to encompass the four stages of Kouprie and Visser's empathy framework (see Section 7.6.1.1).

### *Supporting Comprehension and Application of the Designing for Home Happiness Theory*

Additionally, the Designing for Home Happiness Theory was embedded in Design Tool 1, which allowed designers to brainstorm related design ideas with minimal reading or its full comprehension. For example, the ENHAC provided an efficient means of grouping different essential and nonessential home activities to ideate relevant concepts on the surrounding paper. By exploring designs that could facilitate both essential and nonessential home activities concurrently, designers composed designs (physical binders) that seemingly supported happiness in unhappy homes; they offered a means of achieving an essential home activity (i.e. preparing food) while also motivating a nonessential home action (i.e. time with family). Furthermore, the HHDT's appearance and form seemed to facilitate their usage and understanding; designers became engrossed in corresponding activities and did not need additional assistance after each tool's explanation.

### *HHDT and Service Design Methods as Complementary Approaches*

Following the HHDT, the use of service design methods appeared to assist the design process further. As initial design concepts were conceptualised with HHDT, subsequent service design methods were employed to advance ideas; the offerings map identified how home happiness designs differentiated from competing designs; the stakeholder map located what individuals and/or groups were required to launch, maintain and develop propositions; the customer journey map contextualised how the proposition would be advertised, joined/purchased, utilised, and be referred to others by users. Design Tool 2, employed as part of the HHDT, supported the subsequent offerings map activity as it encouraged a deeper reflection of its *offerings*—such as how it enabled or could facilitate happiness. After this, the stakeholder map allowed designers to decipher practical aspects of design concepts, such as



who could supply relevant goods. Subsequently, the customer journey map motivated designers to think more deeply about how suppliers and users worked together to emphasise the design's happiness benefits.

Consequently, the service design tools encouraged and facilitated an iterative design process in which designers were observed revisiting and advancing various elements of their concepts as each method was introduced. This encouraged systemic design outcomes, appropriate to home; concept features were developed for impact and compatibility with the local community (i.e. stakeholders), targeted households (i.e. persona family) and pre-existing competition (i.e. offerings). In conclusion, using service design tools with the HHDT lead to conceptualisation of appropriate home happiness designs.

### *Contribution of the DfHH to Designing for Home Happiness*

Emerging home happiness designs from the DfHH seemed to theoretically facilitate home happiness for multiple households and individuals simultaneously; each appeared to be adjustable to varying household and community needs (see Table 7.6). Encouraging designers to brainstorm concepts initially using generalised essential and nonessential home activities, using the ENHAC, seemed to enable this. These utilised a generic collection of fundamental home activities for survival and happiness, constructed by combining Maslow's Needs with significant home activities located in Study 1, and so were theoretically transferable to contexts compatible with Maslow's Needs, such as individualistic Western countries. The DfHH therefore appeared to be applicable to other home contexts within the UK and other Western nations; it acquired interchangeable findings when trialled in an Ireland, further supporting this.

Overall, the DfHH seemed to offer a suitable approach for conceptualising home happiness designs in a UK context and other Western nations. It supported user empathy through Kouprie and Visser's empathy framework, enabling designers to understand prospective users and design outcomes accordingly. The HHDT proved effective in allowing designers to brainstorm and reflect on appropriate designs without disturbing the design process while encouraging thinking strategies that encompassed the *Designing for Home Happiness Theory*. Furthermore, follow-up service design tools were employed intuitively by designers to further develop design concepts, incorporating an iterative and systemic process

complementary to ‘designing for home happiness’. Theoretically, all resulting designs supported Seligman’s ‘authentic happiness’; they all incorporated *happiness as pleasure, engagement* and *meaning* by supporting corresponding *emotional binders* through spontaneous positive family experiences that facilitated both essential and nonessential home activities. The DfHH therefore presented a potentially effective means of ‘designing for home happiness’ and supporting more sustainable lifestyles.

## 8 Discussion

This chapter investigates additional topics that arose over the course of the research project. Included are exploratory issues such as ‘What contexts warrant the use of art therapy techniques?’ and ‘Are art therapy techniques and codesign methods compatible?’, and more practical discussions, including ‘The Transferability of the Happy-Homes Workshops’. Additionally, overall future implications of employing the DfHH and art therapy techniques within Service Design, for ‘designing for home happiness’ and the conceptualisation of social innovations are discussed.

### 8.1 Introduction

With the foundry knowledge that activities for long-term happiness can correlate with sustainable practices, this research investigated the core components of home happiness and how it could be supported through design using art therapy techniques within service design approaches. Specifically, it has explored in-depth what the most significant activities and needs are for home happiness in a UK context, utilising findings to establish opportunities for and facilitate ‘designing for home happiness’.

The overall approach was guided by the impact and value of engaging in creative practices; natural motivators of *flow* these activities were found to elicit and improve awareness of internal subjective knowledge, promote intrinsic motivation, improve mood and encourage happy feelings (see Sections 2.3.3–2.3.5). The unique aptitude of art therapy techniques to sensitise individuals to their unconscious thoughts and feelings around specific topics became increasingly apparent through literature review (see Chapter 2.5) and analysis of findings from employing these methods (see Chapter 5.5.1). Furthermore, service design tools showed potential in supporting ‘designing for home happiness’ (see Section 2.4.2). Consequently, using art therapy techniques for exploring and facilitating design for happier homes with service design approaches became a key topic of investigation.

This research identified art therapy techniques as an alternative approach for exploring subjective experiences, the results of which enabled the conceptualisation of DfHH for ‘designing for home happiness’, seemingly applicable to the UK and other individual Western contexts. Findings and conclusions are explained in depth in Chapter 5, 6 and 7

retrospectively. The following sections expands on these with special attention afforded to additional queries that emerged during the research process, including their implications.

## **8.2 What Contexts Warrant the Use of Art Therapy Techniques?**

Previous research (see Section 2.5) and findings (see Section 5.5.1) show that art therapy techniques are applicable methods for exploring subjective experiences from individuals' personal perspectives—home happiness in this case. Considering this, what other instances could employ these methods? Notably, Art Therapy emerged as a sub-set of traditional psychoanalytic techniques, originally only used for repairing mental ailments with a psychology professional (Naumburg, 1950). However, it has been suggested that art therapy techniques can also be used to explore and *highlight positive experiences* through *Positive Art Therapy*—a term describing the overlapping components of Art Therapy and positive psychology, such as Art Therapy's ability to highlight meaning and purpose while amplifying pleasant feelings and engagement (Chilton and Wilkinson, 2009). Furthermore, investigating positive as opposed to negative themes present a safer means of investigating subjective experiences in a research context to avoid surfacing unaddressed issues without official psychological supervision (Springham, 2008). Given that Service Design derives its main value and success from increasing and maintaining *positive user experiences* (Stickdorn and Schneider, 2011) art therapy techniques could be employed by service designers to investigate and create such scenarios. As made evident in Section 2.4.2.1, traditional service design tools (i.e. customer journey maps) are appropriate for visualising and conceiving of new services in a systemic and mostly objective manner (i.e. listing stakeholders and consciously drawing connections between them) but not for exploring more subjective components, such as facilitators of related positive experiences (i.e. home happiness). This additional exploratory step using art therapy techniques could create deeper understandings of more complex experiences services could offer and how to implement them. For example, there are many qualities of positive experiences, which can include both negative and pleasant emotions from varying facilitators (Fokkinga and Desmet, 2012). Exploring such positive moments with art therapy techniques may allow service designers to see past the obvious supporters of such experiences (i.e. efficient service) and create service moments that are richer and more extraordinary (i.e. the service interaction becomes part of the customer's identity—emulating their values). Furthermore, art therapy techniques' aptitude for

investigating subjective moments indicates possible transferability into other fields but this is beyond this research's scope.

Notably, art therapy techniques were employed in this research to deeply investigate positive family home experiences, having identified that such moments satisfied multiple home happiness needs concurrently. In a service design scenario, it would be necessary to locate/conceive of positive experience(s) (i.e. those that satisfy several needs relevant to that context) needed to create a successful service—for example, efficient, informative but personable doctor appointments within a health service—by exploring current related pleasant moments with users. For this, art therapy techniques could be utilised in two ways; to explore current experiences and locate design opportunities (i.e. how positive moments can be encouraged) within a specific context or pre-existing service design for example, *or* to directly investigate relevant positive user experiences—one that satisfies multiple stakeholder/user needs simultaneously—to emulate this in a service. For Service Design to facilitate such positive experiences, it is necessary to understand what those moments core components are, and how they satisfy particular needs and relate to each other; for example, all positive family experiences were found to consist of four physically enacted characteristics that facilitated emotionally felt qualities in a specific sequence (see Chapter 5.5.1.4). These results indicated that art therapy techniques could be used for identifying and illuminating these elements. Overall, art therapy techniques show strong potential in illustrating user experiences *and* investigating conditions for specific positive moments, thus presenting valuable methods for Service Design.

### **8.2.1 The Transferability of the Happy-Home Workshops—Using Art Therapy Techniques to Explore Positive Experiences**

The intricacies of service experiences or other moments (i.e. having a coffee), both pleasant and ordinary, could theoretically be investigated by employing art therapy techniques in the same format as the Happy-Home Workshops (see Table 5.7) by replacing the topic of home happiness with the experience of concern. For example, Activity 1 (image awareness) could be employed to explore other relevant contexts, such as service experiences, to sensitise participants to significant features that play fundamental roles in it, better enabling them to extract personal meanings from emerging imagery in subsequent art-making exercises. Activity 2 (spontaneous art making) could then be used to investigate participants'

unconscious thoughts and emotions around specific experiences; individuals could silently decorate a page displaying a relevant icon/symbol to prompt corresponding illustrations—for instance, if healthcare service experiences were the focus, this visual might be a first aid cross—and then discuss the outcomes with the group once task time has elapsed. Having previously reflected on significant visual aspects of certain experiences/contexts in Activity 1, these could start to emerge in participants' artworks in Activity 2, encouraging them to contemplate their meaning and narrate this more comprehensively in follow-up descriptions of outcomes.

For final Activity 3, individuals could silently create an artwork representing either previous or imaginary positive experiences—a relevant pleasant service moment for example—and then openly reflect on results with the group. As in the Happy-Home Workshops, previous activities prepare participants for this final step; the first task initiates visual thinking related to the experience; the second exercise motivates the visualisation of these thoughts and feelings; the final action focuses thinking and artistic expression directly on possible or existing relevant positive experiences, bringing together previous activities' results to highlight future design possibilities. For example, if the focus of the workshop was to improve a pre-existing service, this final exercise could involve participants visualising a *possible* positive experience within it that doesn't currently exist. If the session was aimed at investigating a particular context for design opportunities, in a local community park for example, individuals may create imagery of *present* positive experiences within it—giving insights into how a new service would accommodate and support these. Furthermore, follow-up one-on-one semi-structured interviews could be conducted with individuals to more deeply explore resulting artwork, such as justifications for colour or materials usage to represent experiences—as utilised during the Happy-Home workshops—to deepen understandings of its facilitators. Using art therapy techniques this way, it may be possible to develop comprehensive understandings of positive experiences or moments more generally in different contexts. By locating their facilitators designers can begin to explore how these can be embedded in or translated into relevant designs.

### **8.2.2 Advantages and Limitations**

Having participants engage in creative activities can have multiple benefits, as was discussed in Sections 2.3.3–2.3.5 and Section 2.4.3, and shown in Chapter 4 and 5. Specifically, it

appears that art therapy techniques could also be used to explore core characteristics of positive experiences from various user perspectives within relevant services and/or varying contexts and embed these in new or existing services and/or PSSs. Furthermore, they appear to reduce the danger of personal biases affecting findings by limiting analysis to participants' renditions of their artworks and incorporating silent art making activities to encourage individual reflection and focus. In comparison to codesign methods, such as generative toolkits (discussed in Section 2.4.3), they appear to require less preparation and are more appropriate for extracting detailed results about subjective moments. For example, generative toolkits tend to be curated to each investigation, usually requiring multiple trials and refinement to create the finalised version (Sanders, 2000). Furthermore, instructions for codesign tasks are intentionally ambiguous to allow participants to project their thoughts and views onto emerging artefacts (ibid), which may not always retrieve useful data if the study's focus is the exploration of specific subjective moments. Additionally, as artwork analysis in art therapy techniques tends to be restricted to participant descriptions, this could generate faster findings in comparison to other creative design methods that include examinations of participant-made artefacts—cultural probes for example.

Although, some individuals could find the silent art making activities used within art therapy techniques challenging as they may rely on conversation to stimulate ideation. For example, participants are usually actively encouraged to discuss and narrate their ideas during codesign sessions. Silence could help to focus some individuals while causing difficulty for others, depending on the participant group preferences. Furthermore, before employing art therapy techniques, it is necessary to identify what moments are worth investigating, requiring some preliminary research beforehand. For example, positive family experiences were identified as moments that could satisfy the most home happiness needs simultaneously during this research, needing further examination.

Art therapy techniques could also potentially be used as this exploratory tool; by asking participants to reflect on and illustrate their thoughts and feelings within specific contexts, underlining needs and the experiences that satisfy them could be identified. Follow-up sessions could then be employed to examine these more deeply. Admittedly, when improving or constructing a service design, it is also important to investigate the needs of different stakeholders (Sanders and Stappers, 2014a). This could be conducted through art therapy

techniques by investigating their personal experiences—although, possibly leading to a substantially time-consuming research process. Of course, if the research/brief focus was ‘designing for happiness in the workplace’, art therapy techniques could be employed immediately to explore *positive work experiences* and ways design could support these.

#### **8.2.2.1 Attracting a Predominantly Female Sample**

Notably, of the 11 participants that took part in Study 2, 10 were female. This is significant as previous research argues that conceptualisations of home always carry some gender bias (Madigan, Munro and Smith, 1990). There may be several reasons for this female majority. Women have a tendency to be more concerned about the home than men, and can achieve more enjoyment from it (Mason, 1989; Hochschild and Machung, 2014)—perhaps making them naturally more receptive to the study. Additionally, Study 2 Happy-Home workshops were advertised as free artmaking classes to improve home happiness (see Appendix AA). In accordance with traditional notions of the ‘masculine ideal’, such as exercising autonomy, self-sufficiency and emotional restraint (Milligan *et al.*, 2013), *seeking help* to improve oneself or home may not come as naturally to men, as supported by the sample turn out. Furthermore, art for men appears to have a dichotomous image—it is favoured in masculine terms if professionally pursued but is *devalued* as feminine engagement (i.e. that which counters the ‘masculine ideal’) in educational settings (Imms, 2003). However, Vick (2015) suggests that art therapy techniques are complimentary to men’s common way of emotionally relating, such as ‘connection through action’ (Pollack, 1998, p. 8) as opposed to conversing—by using silent art making for example. Additionally, men appear to require a period of ‘timed silence’ to process feelings for sharing (ibid), again a pattern echoed in art therapy practices (Vick, 2007). Correspondingly, the male participant did not seem to struggle with the workshop activities and even remarked that it was “nicest thing” he had done that day. In this manner, to avoid such an unbalanced sample in the future studies, it appears advisable to reframe recruitment strategies away from a focus on *self-help education*, and instead towards *practice oriented social action* that serves the community. For example, Men in Sheds, a UK based social innovation for male wellbeing providing hands-on activities for mainly older men (50 years+), has proven widely successful with some reasons cited as its provision of action-based activities and potential to influence the locality (Reynolds, 2011).



Notably, all female participants talked about events that took place *within* the home and the male participant described an occasion *outside* in the garden. This may have been due to men and women's different associations of home in which men can perceive it as a *symbol of success* and women tend to consider it a *haven* (Somerville, 1997) or generally feel physically closer to it (Mason, 1989; Hochschild and Machung, 2014). Additionally, there is prior research that shows women as predominantly the maintainers of household artefacts and their display, and men as their primary accumulators, further emphasising this point (Saunders and Williams, 1988). Considering this, men may tend to derive their home happiness from its exterior and physicality (i.e. DIY), viewing it as a material object of achievement that demands admiration and maintenance. Moreover, women could obtain home happiness more from home interiors where its personalised surroundings make them feel 'at home'. Resultantly, most Study 2 data focused on events *within* the physical home, suggesting that the recruitment of additional male participants could have retrieved more results situated in or about external and/or structural home surroundings.

### **8.3 Are Art Therapy Techniques and Codesign Methods Compatible?**

Codesign methods, such as generative toolkits, are most commonly employed at the fuzzy/exploratory stages of the design process, as explained in Section 2.4.3. They could therefore provide complementary approaches to art therapy techniques by identifying the positive experiences and contexts to be investigated. For example, toolkits are usually employed to facilitate group creative activities, the results of which can reveal 'underlying patterns' (Sanders and Stappers, 2014b). Service design projects, especially open-ended ones, can benefit from the initial application of toolkits to locate design opportunities, such as significant user needs and experiences to be explored more deeply using art therapy techniques. Furthermore, codesign methods, such as generative toolkits, can be used to sensitise participants to relevant subject knowledge and encourage collaborative work between multiple stakeholders to create culturally relevant designs (Sanders and Stappers, 2012). A deeper understanding of related experiences through the use of art therapy techniques could inform the creation of generative toolkits to explore new design alternatives and scenarios. For example, once the facilitators of desired positive moments (i.e. a comfortable communal space) are identified (i.e. through art therapy techniques), codesign sessions using generative toolkits to generate applicable design outcomes that support or act

as these can be more easily formulated. One such exercise might be to explore how a comfortable communal space can be created/supplied through a service design in a healthcare setting (i.e. using Inspiration Cards to create new narratives around this or collage making to explore what a ‘comfortable communal space’ is in this context)—assuming this was a facilitator for a positive healthcare experience.

Moreover, probes could sensitise participants to topics of interests prior to use of art therapy techniques and codesign workshops employing toolkits. Collectively, probe completion could improve participant engagement with subsequent art therapy techniques, and results from art therapy techniques could be used to identify features (i.e. facilitators of positive experiences) worth focusing on in codesign sessions. Additionally, prototyping could be employed after art therapy techniques and codesign sessions to test and refine emerging designs with stakeholders. Participants could either be presented with preliminary/low-fidelity design outcomes and asked to give their opinions and/or use design prototypes, recording their impressions. Considering this, codesign methods, such as probes, toolkits and prototypes, appear to be complementary in developing new or improving services or PPSs with art therapy techniques.

#### **8.4 Using a Relatively Happy Homes Sample**

Most of Study 1 and Study 2 samples appeared to come from predominantly happy homes. The recruitment process for Study 1 directly inviting people to share aspects of their home life through self-documentation, which retrieved a very happy sample—understandably, unhappy homes would feel less comfortable doing this and were therefore absent from the sample. If attempting to target groups from unhappy home environments, such as those from low-income backgrounds or individuals suffering a bereavement or long-term illness, incentive-based recruitment strategies appear to be necessary. Research has shown that those experiencing unhappiness are less likely to engage in pro-social behaviour (i.e. research)(Lyubomirsky, King and Ed, 2005) and in this case could be encouraged by some reward or collective community intervention. For instance, if reaching out to these groups, connections could be formed with local community groups or organisations with interests in improving home happiness where the research process could be embedded in a community wide intervention to improve the lives of members of the locality. Such an approach was taken in the Design Council’s Knee High Project (2016) where they formed a partnership

with Guy's and St Thomas' Charity and London Boroughs of Southwark and Lambeth to research, create and fund new services for families of young children in poor London areas.

Study 2 advertised free artmaking workshops to enhance home happiness. Given this different approach, one participant in Study 2 did appear to volunteer for self/home improvement purposes and naturally disclosed barriers to home happiness during the workshop and semi-structured interview discussions. Although the main themes explored were positive, such as pleasant family experiences, this appeared to provide a safe guard in examining more sensitive issues, such as home unhappiness—discussed in Section 5.5.1.2. Participants from seemingly happy households, could also indirectly discuss home unhappiness by mentioning things that could improve their home experience. Given the effectiveness of art therapy techniques in surfacing emotions, it would have been ill-advised to focus on negative themes or target individuals from unhappy homes without a professional therapist present. Furthermore, exploring pleasant themes through art creation tends to be more effective in encouraging positive valence than 'venting' strategies (Dalebroux, Goldstein and Winner, 2008), which, in turn, was shown to improve participant engagement (see Sub-Section 5.5.1.1). Resultantly, exploring positive home themes with a mostly happy home sample appeared to be suitable in understanding home happiness barriers. It guarded against participant emotional vulnerability by indirectly addressing factors that contributed to unhappy homes.

## **8.5 Ethical Considerations**

Art can be a powerful communication tool. Consequently, it can harm as well as help individuals when used within Art Therapy (Springham, 2008). For example, an individual with a history of violence sustained multiple injuries during an art making therapy session; he was asked by the organiser to visualise all the bad things in his life, resulting in him physically attacking the image. Three significant issues were made apparent here; the facilitator was not an art therapist; the participant was mentally vulnerable and was instructed to talk *to* the image as oppose to *about* the visual, provoking an over-validation of the subjective experience—the painting became reality as opposed to a depiction (ibid). Consequently, creating negative images could require professional psychological supervision in research scenarios as it might lead to negative/dangerous reactions from individuals.

However, as results from Study 2 demonstrated, art therapy techniques can be used without the presence of an art therapist when focusing on positive topics with mentally well individuals. For example, the Happy-Home workshops conducted during Study 2 (see Chapter 5) employed art therapy techniques to encourage participant reflection on mostly positive home aspects, inducing pleasant emotions by highlighting family meaning and importance. This approach was reflective of *Positive Art Therapy*—previously explained in Section 8.2. Given this, it seems that with carefully workshop planning, such as focusing tasks on a positive topic—improving the local community for example—and recruiting psychologically healthy individuals, negative participant experiences can be greatly avoided. Although, as previously discussed in Section 3.9, contact details for psychology professionals should be collected beforehand in case of emergencies. Furthermore, discussing session plans, such as concepts to be used, with an art therapist prior is invaluable in highlighting any foreseeable issues (ibid), as was the approach taken in Study 2 (see Appendix H).

#### **8.5.1 Seeking Participants of Sound Mind**

Springham (2008) defines *art as therapy* as having three features; (1) it is conducted with vulnerable participants; (2) it involves an art activity; (3) emerging material is meaningful for the individual. Notably, when art making is employed within a research context, it is important that it is not *art as therapy*, such as it is not interpreted as therapy and/or is not accidentally used in this manner. The primary purpose of employing art therapy techniques in research is to use *art making* to create *significant imagery for individuals* that, in turn, allows the researcher to gain a deeper understanding of the topic. It is not directly aimed at emotional healing and development. Although, these may occur as positive by-products given art's naturally ability to improve mood and elevate stress (De Petrillo and Winner, 2005; Bell, Chloe and Robbins, Steven, 2007). Understanding this, participants selected for studies employing art therapy techniques should be *not* come from vulnerable groups unless an art therapist can be present. As previously stated, for this research, this was implemented by overtly stating that sessions did not involve therapy in participation-calls, with criteria that included 'over 18 years of age'. Furthermore, the facilitator's introduction to Art Therapy-Led workshops for Study 2 highlighted that, although employing/borrowing some art therapy techniques, it did not provide therapy. Additionally, in future related research,

‘no history of mental illness’ could be added to the recruitment criteria as a supplementary measure.

### **8.5.2 Keeping the Focus Positive**

Admittedly, individuals who have underlying psychological problems may unknowingly be recruited to studies using art therapy techniques. Participants may not be aware of existing emotional difficulties and never have been formally diagnosed. However, it seems that employing *positive art therapy techniques*, those that encourage pleasant feelings, engagement and recognition of life meaning, could provide some safeguarding as they are centred on positive themes and are less likely to bring up negative emotions for participants. Furthermore, participants could be encouraged to talk *about* their artwork as opposed to talk *to* it during sessions employing art therapy techniques to reduce the risk of them embodying strong feelings from images (Springham, 2008). Additionally, the facilitator should not push participants to say more than they are comfortable with by observing body language (i.e. open and closed), responses (i.e. enthusiastic or reserved), and adopting a mostly listening stance to maintain an enjoyable workshop atmosphere—as was the procedure followed in Study 2 (see Chapter 5). Furthermore, for this research, Study 2 follow-up semi-structured interview questions were carefully chosen for their relevance to the topic under study to remove resemblance of a therapy session (see Appendix I).

## **8.6 Reliability of Findings**

Although the researcher employed triangulation, peer review, some participant feedback (i.e. through email and feedback forms) and systematic analysis techniques as part of a grounded theory strategy, outlined by Corbin and Strauss (2015), there are further measures that could have been taken to increase the reliability of findings. For example, having another researcher code data from either of the studies could have promoted *intercoder reliability* and reduced unconscious biases of the researcher affecting findings (Hruschka *et al.*, 2004) by evaluating the accuracy of emerging codes, themes and theories. As the research coding process was guided by theoretical frameworks from Complexity Theory, Critical Theory, and Self-determination Theory, and characteristics for happy and sustainable societies from ‘Design for Happiness’ it was not possible to find an additional coder with understandings of these concepts or with time to study them prior. Additionally, one of the downsides of employing

a ground theory strategy is the large quantity of data generated, which also presented obstacles in recruiting another researcher to code it during this research. Nonetheless, it would have been a beneficial further step in improving the validity of results.

Moreover, although participants were invited to give feedback on Study 1 findings through email, none replied. On reflection, using a focus group of participants to check findings (Creswell and Miller, 2000) would have been more successful in obtaining these. Also, although participant feedback was gathered from feedback forms and semi-structured interviews for Study 2 workshops, this did not explore resulting concepts (i.e. Home Happiness Theory). Instead triangulation was used in which a survey gathered responses to compare with those of Study 2 (see Chapter 6). It would have therefore been ideal to facilitate a focus group with Study 2 participants to gather their live feedback on resulting concepts.

## **8.7 Implications for Service Design**

The DfHH appears to provide service designers with a design process and tools to directly ‘design for home happiness’. The accompanying tools, such as HHDT, embed the Designing for Home Happiness Theory into accessible design activities and the service design methods allow initial ideations to be translated into systemic design concepts, such as social innovations, service designs and PPSs. Furthermore, as the Designing for Home Happiness Theory was based on characteristics for happy and sustainable societies (i.e. designs supporting positive family experiences can facilitate more sustainable behaviour through individuals spending time together and sharing resources), the DfHH also seems to present service designers with a framework for designing for sustainability by supporting designs for home happiness *and* sustainability. Furthermore, the DfHH took an expert-led approach during Main Study sessions, using a persona as guidance for user perspectives and needs. It did not include members from the local community as it was deemed important that the DfHH took an expert-led approach to first test the usability of the design tools and process, and their underlying theories, with their primary intended users (i.e. designers). However, it seems conceivable that the DfHH could be employed using a codesign approach by service designers now that it has received some validation (see Chapter 7). For example, stakeholders of a community could be recruited to work with designers using the DfHH. The presence of the stakeholders would offer immediate user feedback and input during design sessions, replacing the persona in the DfHH, otherwise the design process and tools would remain the

same. The HHDT have been purposely created to ease creative activities without full comprehension of the theory and designers could guide community members in the use of the service design tools.

Art therapy techniques, as a unique creative method, also suggested additional implications for Service Design. Although, some service design methods, such as service safari and shadowing—where one visits a context as a user or follows and watches user moments to understand it from their perspective—can be used to define design directions, they are still reliant on the observations/interpretations of the researcher and not the individuals, reducing insight reliability. Furthermore, other similar methods, such as contextual interviews and contextual inquiry, that involve interviewing individuals and witnessing them performing tasks in relevant contexts (Beyer and Holtzblatt, 1998), are subject to knowledge of the participant in that moment; for example, the interviewee may not have a deep understanding of what is happening and could therefore only offer surface responses. Accordingly, in situations where the initial design concept—its format (i.e. service, PSS) and relevant stakeholders for example—has not been set, additional methods are necessary during exploratory stages to examine the context with minimal personal bias, and support mechanisms for immersing participants in the study topic beforehand. Correspondingly, art therapy techniques were used in this research to provide participants with a prolonged period of sensitisation to their thoughts and feelings about home and positive family experiences (see Chapter 5). Resultantly, individuals could offer detailed answers during follow-up semi-structured interviews, which lead to the eventual conceptualisation of the Home Happiness Theory (see Section 5.5.1.8). Furthermore, restricting analysis to participants' explanations of their artworks reduced the risk of investigator interpretations distorting results. Consequently, art therapy techniques appear to offer appropriate approaches for exploring new contexts, such as experiences of interests and service experiences, within Service Design to better understand user perspectives and build empathy.

Notably, codesign methods, such as generative toolkits and probes, can also offer avenues to achieving new insights about relevant stakeholders and target audiences. However, as previously discussed (see Section 2.5.2.2) there are several differences between art therapy techniques and creative methods, including codesign methods. To recap, art therapy techniques can involve actively encouraging silence during art making sessions followed by

open reflection from the individual of what they have created; art materials are general unstructured (i.e. paint, collage materials, found objects) as opposed to employing preselected imagery, words and shapes (commonly used in toolkits); the meaning of the artwork comes from its creator and a preparatory ‘image awareness’ exercise can sensitise participants to the meaning of their artwork. These features allow art therapy techniques to deeply explore a person’s subjective experience as they facilitate deep personal reflection and reduce contamination from outsider perspectives. In comparison, codesign methods are successful at sensitising participants to relevant subject knowledge, and supporting collaborative work between designers and stakeholders to reach new understandings about what is required and how it could be implemented (Sanders and Stappers, 2012). As previously suggested in Section 8.3, art therapy techniques and codesign methods are not incompatible methods and could be jointly employed in service design projects. Art therapy techniques could be used to sensitise participants to relevant themes while also identifying the particulars of these moments that could be used to formulate specified codesign activities for creating related designs.

Generally, art therapy techniques seem to provide a unique creative method allowing service designers to deeply investigate subjective experiences of the *individual*, rather than facilitate codesign—as is generally the case with existing creative methods. They encourage comprehensive participant reflection, restrict analysis to their personal contemplations resulting from artistic practice and provide a format seemingly transferable for use in multiple contexts (see Section 8.2.1). Collectively, art therapy techniques appear to supply service designers with a means of understanding positive experiences, especially their facilitators, and, in this way, how they could be included in relevant services.

## **8.8 Implications for Designing for Home Happiness**

This research identified several home happiness needs (see Section 4.5.1.4), many of which could be supported by positive family experiences that facilitated basic and psychological needs simultaneously (see Section 5.5.1.5). Although the DfHH provided a means of ‘designing for home happiness’ with these concepts in mind, could the positive family experiences models (i.e. *planned*, *spontaneous*, *routine*) (see Figures 5.27–5.29) be used separately for this purpose? Notably, the pleasant family scenarios with the most potential for increasing home happiness were *spontaneous family experiences* as they required minimal



preparation, were initiated by visual cues in the environment—a fire for example—and could lead to *routine positive family experiences* (see Section 5.5.1.7, Figure 5.27). All spontaneous family experiences began with a *physical binder*, and a design (i.e. service or PSS) could be that *physical binder* to encourage subsequent components of that moment—*togetherness*, *synchronised rest periods* and *emotional binder* (see Section 7.4.1). To create an appropriate physical binder, it had to draw homes and/or household members together (*togetherness*), encouraging them to make time for this interaction (*synchronising rest periods*) by communicating that certain important needs would be met, and emerging activities (*emotional binders*) had to fulfil those needs. Consequently, referring to the spontaneous positive family moment model in isolation could lead to large quantities of time being used to understand how design might support its components instead of developing the concept itself. Furthermore, the DfHH supplied an implicit way of achieving this without distracting from the design process (see Section 7.6.1.1). Considering this, rather than employing the spontaneous positive family experience model alone, the DfHH appears to present a better overall approach for ‘designing for home happiness’.

Moreover, as the DfHH was developed with cohabiting scenarios in mind, could it be employed for single occupancy households? Notably, it is understood that all households will have similar home happiness needs, the predominance of which will change with each scenario (see Section 4.5.1.5). Furthermore, positive family experiences were found by this research to satisfy most of these concurrently under certain conditions (see Chapter 5.5.1.6). Additionally, it has been suggested that belongingness and close social relationships (Baumeister and Leary, 1995) or the ability to use one’s talents to benefit the local community are the most significant human needs, more generally (Deci and Ryan, 2000)—assuming basic physiological requirements have been met. Given this, supporting spontaneous positive family experiences could still be applicable for facilitating home happiness in single-occupancy households; positive *family* experiences could instead be referred to positive *community* experiences to emphasise that social engagements for home happiness need come from beyond the home in these situations. The components of spontaneous positive *community* experiences and the sequence in which they occur could remain the same as those in spontaneous *family* moments, such as *physical binder*, *togetherness*, *synchronised rest periods* and *emotional binder*. For example, an applicable design concept might include a social innovation (*physical binder*) that connects knowledgeable older people

living alone with local families (*togetherness*) needing their expertise (*synchronised rest periods*). Through this, reciprocal relationships could develop where social engagement needs are met through information/skill sharing activities, such as DIY or craft activities with parents and/or children (*emotional binders*). Positive affect from these interactions could then transfer into individuals' solitary time as they mend or make something for neighbours, providing a sense of connection and meaning within the locality even when alone. Considering this, assuming the persona utilised within the DfHH was adjusted to reflect these lifestyles, the DfHH could potentially support home happiness designs for individuals living solitarily.

## **8.9 Implications for Social Innovation**

Although social innovation was not directly included as an investigative topic for this research, the findings have indicated some benefits and applications to this area. Social innovations involve the generation, organisation and implementation of new solutions meeting a social problem that are more sustainable, just or efficient and that primarily benefit society collectively (Mulgan *et al.*, 2007; Phills Jr. *et al.*, 2008). Furthermore, service design methods have been commonly used to conceptualise social innovations (Hillgren, Seravalli and Emilson, 2011), recognised for their effectiveness in this area (Murray, Caulier-Grice and Mulgan, 2010). It therefore seems plausible that the DfHH—by using service designs methods and facilitating the creation of home happiness designs that encourage social/community engagement for the needs of multiple individuals—could also be employed for this purpose. Correspondingly, one of the design outcomes emerging from using the DfHH in Main Study 1 was referred to as a 'Social Innovation for Connecting Households Through Giving and Creating' (see Table 7.6). Additionally, social innovations frequently contain service design elements by taking the form of 'new services or models' that encourage 'new social relationships and collaborations' (Bureau of European Policy Advisers (BEPA), 2011). In this manner, other emerging design outcomes (see Table 7.6) in the Main Studies could potentially contribute to the development of social innovations or become these; they all emphasised social connections through spontaneous positive family experiences that could foster 'new social relationships and collaborations'. Understanding this, it appears that the DfHH could lead to the conceptualisation of social innovations and/or the creation of designs that foster their development.

Moreover, how could the DfHH intentionally be employed for developing social innovations? Using the DfHH, ‘designing for home happiness’ involves achieving most of each need-set outlined in Maslow’s Hierarchy Needs (see Figure 2.2, p. 19) through relevant home activities, with ‘being familiar with the locality (i.e. knowing neighbours)’ included as an *essential* home activity (see Figure 7.7). Resultantly, emerging home happiness designs either implicitly or explicitly include positive interactions with the locality. Correspondingly, most design concepts emerging from the deployment of DfHH in the Main Studies involved directly forming greater connections with the local community. Considering this, the DfHH could be modified for ‘designing for happy communities’ through social innovations, such as services and/or organisations led and sustained through the local community, by changing the deliverable from a design to a community organisation, using a codesign approach. To do this, the initial design activity prompter on Design Tool 1 could be rephrased from ‘how could design support one or more essential and nonessential home activities simultaneously?’ to ‘how could the local community facilitate essential and nonessential home actions concurrently?’ and community members could be recruited—through research talks at public events and poster advertisements in communal spaces—to work with designers during the workshop. This transfers the focus from creating a design concept to understanding how members of the locality, could come together through mutual exchanges supportive of community happiness needs. Follow-up service design tools, such as stakeholder and user journey map, could then be used to refine and structure this social activity into a service and/or community organisation, naturally fitting the criteria of a social innovation (see top of Section 8.9). Accordingly, supplementary social innovation methods—the social innovation journey (SIJ) for example illustrates key pre-incubation, incubation and growing stages to build and sustain a social innovation (Meroni, Corubolo and Bartolomeo, 2017, pp. 166–167)—and codesign approaches, including empathic conversations amongst stakeholders and prototyping scenarios, could be used subsequently to solidify emerging social innovations.

Additionally, art therapy techniques could be employed prior to using the DfHH for conceptualising social innovations to better understand current experiences of local inhabitants and to sensitise them to relevant themes in preparation for upcoming design activities—in the manner outlined in Section 8.2.1. Relevant findings could then be used in the DfHH by embedding them in personas employed in Activity 2 (see Table 7.5), such as

providing detailed accounts of the target audiences' hopes and dreams. Together, art therapy techniques and the DfHH show potential in supporting the conceptualisation of social innovations from a 'designing for home happiness' point of view, optimising positive community contexts for happier and more sustainable lifestyles.

## 9 Conclusions and Future Work

The final chapter presents a summary of all the results and findings from previous chapters. Through this, it illustrates how the research aim and objectives were achieved and how the research questions were addressed. The overall conclusions of this research and its contribution to knowledge are also presented, including its limitations and recommendations for future work.

### 9.1 Meeting the Research Aim & Objectives

This research was positioned in the context of a currently unsustainable and generally unhappy world; two issues demonstrated to be intrinsically linked through an examination of current social values, and their effects on mood and the environment. It was discussed that extrinsically motivated behaviour (i.e. acquisition of material status symbols) appears to dominate the present social paradigm, having adverse effects on happiness and the environment. These practices are deeply engrained in everyday life, making sustainable initiatives appear chastising to many. It was therefore determined that alternative interventions to support more sustainable and happier lifestyles were necessary in today's social climate. Home was identified as an influential in this agenda given its central role in many people's lives, including their daily practices, and its potential to affect social interactions beyond its confines. Similarly, design's pivotal role in supporting current society was also located as a mediating force that could transform it towards happier and more sustainable behaviours through the same process.

Service Design, being a research context requirement of this PhD (see Section 1.2), was found through literature review to present a potential approach for facilitating 'designing for home happiness'. Emphasising the holistic user journey, it offered design tools that acknowledged home as a complex system. Furthermore, creativity, specifically engagement in image making such as art, was shown to improve mood, build emotional awareness, encourage intrinsic over extrinsic behaviour and elicit unconscious thoughts and feelings—demonstrating potential in illuminating and supporting conditions for home happiness and more sustainable lifestyles. Art therapy techniques especially illustrated a strong aptitude for deep individual emotional exploration around home happiness. Together art therapy

techniques and service design methods presented complementary approaches to explore and deliver interventions for happier and more sustainable home experiences.

Correspondingly, this research’s aim was ‘to explore how creative techniques within art and design, specifically Art Therapy and Service Design, can contribute to designing for happiness in the home’. This was accomplished by employing a literature review to extract the most promising creative methods for exploring home happiness and creating applicable design concepts, and then utilising these in subsequent studies. Study 1 used photo elicitation as combined creative and interview technique to reveal several home happiness needs. Having found positive family experiences to satisfy multiple home happiness needs simultaneously from Study 1 findings, Study 2 subsequently used art therapy techniques to explore conditions for positive family experiences. The final research phase then involved translating these findings into design language (i.e. HHDT) and then coupling them with select service design tools to create the DfHH. Accordingly, this was tested and verified in terms of application and usability for ‘designing for home happiness’ in two different contexts, Loughborough (UK) and Limerick (Ireland) with design experts, yielding promising home happiness design concepts, solidifying its high potential for improving home happiness and sustainability. Consequently, the research objectives were also met following this same process. They are discussed in detail in Table 9.1:

*Table 9.1 – How the Research Objectives Were Achieved*

| Objective   | How it was met   | Chapter |
|---|--|---------|
| 1. To review the literature relating to the main research aim, such as the current socio-economic paradigm and its effects on happiness, meanings of home, creativity, design as a facilitator of happiness and creativity, Service Design and Art Therapy. | A literature review was conducted into these areas, creating a better understanding of relevant phenomena, such as current societal values, concepts of home, role of creativity in emotions and happiness, and applicable tools for investigating home happiness and developing home happiness designs. | 2       |
| 2. To identify ways of enhancing home happiness.  | The photo elicitation method was used to carry out semi-structured interviews, employing participant generated imagery, with 13 adults from 10 UK families, leading to the identification of several home happiness needs.   | 4       |

|   |   |                |
|---|---|----------------|
| <p>3. To test the use of art therapy techniques in conceptualising home happiness triggers into explanatory terms, such as design tools and frameworks.</p>   | <p>In Chapter 5, art therapy techniques were trialed in exploring home happiness through a pilot study, creating original Happy-Homes Workshops that employed the most successful of these methods. Subsequently, two Happy-Home Workshops were deployed in Study 2, leading to the conceptualisation of the Home Happiness Theory, including positive family experience models (i.e. planned, spontaneous, routine). Following this, these models were used to develop HHDT to accompany service design methods, comprising the preliminary DfHH in Chapter 6.</p> | <p>5 and 6</p> |
| <p>4. To develop and implement 'designing for home happiness' design tools and framework for use with service design approaches.</p>  | <p>The initial format for the DfHH was created from the Home Happiness Theory and applicable service design methods—previously identified from Chapter 2 literature review—in Chapter 6. In Chapter 7, this DfHH version was tested through a pilot study, the results of which were used to modify, refine and create the finalised DfHH, which was subsequently launched in two different contexts through the Main Studies.</p>  | <p>6 and 7</p> |
| <p>5. To examine the implications of using art therapy techniques within service design approaches to improve home life happiness for future happy homes, Service Design and social innovation.</p> | <p>The results of the Main Studies were explored in relation to their perceived impact for Service Design and 'designing for home happiness' in Chapter 7. Overall research findings were then investigated for their general application and relevancy to these areas in Chapter 8.</p>  | <p>7 and 8</p> |

## 9.2 Conclusions

This research set out to identify alternative approaches for 'designing for home happiness' to address societal unhappiness and unsustainability. It therefore focused on investigating home happiness activities also supportive of sustainable behaviour, developing creative methods to firstly identify significant needs for home happiness and, secondly, understand how design could support these through applicable theories (e.g. Home Happiness Theory). Subsequently, resulting theories enabled the conceptualisation of the DfHH, including original HHDT and applicable service design methods for 'designing for home happiness'. The following sections summarise the key conclusions from this research overall:

### *Literature Review*

- Traditional service design methods (i.e. offerings maps, personas) facilitate group work, objective thinking and visualisation of service systems (i.e. customer and employee interactions with it) but do not currently offer a means of deeply

exploring individual subjective experiences, necessary when ‘design for home happiness’

- There are many differences between art therapy techniques and creative research methods including types of material employed (i.e. structured vs unstructured) and usage (i.e. spontaneous vs planned art making), talking during sessions (i.e. silence vs encouraged), preparatory activities (i.e. probe vs ‘image awareness activity’), and interpretation of results (i.e. by the researcher and, sometimes, participants vs by the participant only).

### *Study 1*

- Employing photo elicitation as creative method in the home, where participants capture imagery to illustrate their domestic routines, provides an unobtrusive approach for investigating home happiness; recording the imagery seems to emotionally sensitise participants to the significance of their daily activities allowing resulting photographs to serve as memory aids and introductory prompts to discussions around important qualities for home happiness at interview stage.
- Positive family experiences can support several home happiness needs simultaneously when they include activities for lower and basic needs (i.e. eating), and for higher and psychological needs, (i.e. playing), collectively.

### *Study 2*

- Art therapy techniques facilitate deep *individual* reflection and awareness of one’s *pre-existing* thoughts and feelings. They therefore present an alternative approach for exploring subjective experiences in design research.
- The Home Happiness Theory illustrates that positive family experiences can be defined as *spontaneous*, *routine* or *planned*, and that all are comprised of four physically enacted core components—*togetherness*, *synchronised rest periods*, *emotional binders* and *physical binders*—the sequence of which is determined by the experience type. Activities within positive family experiences seem to emotionally bind individuals to the moment and are therefore referred to as



*emotional binders*; object/environments that support these interactions appear to physically bind participants to the situation and are hence called *physical binders*.

- Spontaneous family moments are the most applicable for facilitating home happiness through design in unhappy homes; they are initiated by the physical binder, which the Designing for Home Happiness Theory shows can be a design concept (i.e. PSS or service design); they required no prior planning/action from participants and can naturally evolve into routine positive family experiences if particularly successful at enhancing homes happiness.

### *Main Studies*

- The DfHH seems to effectively translate the Home Happiness Theory and Designing for Home Happiness Theory into original design tools and related process. Resulting designs appear to support home happiness of multiple households and individuals concurrently as they support generalised happiness interactions, such as gift giving, that could be specified to different personal preferences.
- The DfHH shows potential in facilitating ‘design for home happiness’ with service design approaches for social innovations. Emerging designs appear to create the right social context for social innovations as they encourage positive social interactions within the community. Furthermore, the DfHH could possibly be used to conceptualise these directly by placing the focus on social organisations as opposed to design outcomes, employing a codesign approach.

### **9.3 Limitations of the Research**

Although a broad range of insightful findings have been collected over the course of this research, there have been notable constraints which need to be acknowledged. These are segregated under the following titles: Time Limitations, Social Resource Limitations, Contextual Limitations.

### **9.3.1 Time Limitations**

Much of this research focused on trialling art therapy techniques within a design context for the first time to deeply explore home happiness and support succeeding design activities, achieving the research aim (see p. 308). This presented time constraints in developing emerging creative methods and analysing data. For example, despite activities within the DfHH being aligned directly to the Double Diamond Design Process (Design Council, 2005), it is a *discovery stage* approach for conceiving preliminary design possibilities that require further development. Resulting design propositions need additional steps to create prototypes to be tested within real-world contexts. The projected benefits of employing the DfHH for ‘designing for home happiness’ are therefore only speculative. Furthermore, the persona utilised to guide outcomes in the DfHH was constructed from relatively happy household accounts; it would have been beneficial to construct a persona from unhappy home data to better explore the DfHH’s potential contribution to home happiness.

The researcher also attempted to use data management software, NVivo, to analyse data. However, given the large quantity of data (i.e. 25 interview transcriptions, 390 images, 22 artworks) and the researcher’s lack of experience with NVivo, this approach was abandoned for a manual approach (i.e. coding documents individually on and off screen) to complete analysis in decent time. This presented additional difficulties when trying to visualise findings and the analysis process; emerging codes and themes were segregated amongst multiple items of data and had to constantly be reviewed and compared against each other individually. This may have led to some human error in interpreting results. The utilisation of qualitative analysis software would therefore be invaluable in future work for organising, analysing and presenting findings, especially when employing a grounded theory strategy.

### **9.3.2 Social Resource Limitations**

Collectively, the samples employed at each research stage met the specified criteria required to conduct studies and attain the research objectives. However, samples for Study 1 (Table 3.3) and Study 2 (Table 3.4) all came from professional middle-class backgrounds. This led to less socially comprehensive data when identifying important home happiness needs and investigating how positive family experiences occurred. Furthermore, all participating households came from relatively happy homes and were family-based. As identified home happiness needs were compatible with Maslow’s Hierarchy of Needs, these could also be

relevant to other living situations with each need's importance shifting with different circumstances. Nonetheless, it would have been desirable to explore home happiness in these corresponding alternative scenarios to see if this was the case.

Moreover, this research tested art therapy techniques as a creative method with a mostly female sample leading the results of Study 2 to be at risk of gendered bias. Although, there is evidence to suggest that art therapy techniques are applicable for male audiences (Vick, 2007, 2015). As previously acknowledged in Section 8.2.2.1, different recruitment strategies will be necessary in future work to obtain a more gendered balanced sample and to properly evaluate the method's usability with male participants. Such approaches may also include making contact with and presenting research informally to local men's groups /clubs (i.e. Men in Sheds) to encourage male participation directly.

Main Study 1 also recruited participants based at Loughborough University, which presented issues of positive bias. To counter this, Main Study 2 was carried out at Limerick University. However, individuals for Main Study 1 and 2 also consisted of a mainly academic audience, who may have been more receptive to the theoretically driven DfHH design tools (i.e. HHDT). Attempts were made to recruit individuals outside this network, but the length of the workshop (4 hours and 45 minutes) was off-putting as it required volunteers to take time off work. Moreover, recruitment for participants for Limerick University was restricted to academic staff due to its context and its distance from the researcher. Ideally, Main Study 1 and 2 samples should have comprised of professionals from academic *and* industry backgrounds, and Main Study 1 sample should have involved individuals from outside of Loughborough University.

Lastly, the DfHH was tested with design experts from mainly product design disciplines (Table 3.5), knowledgeable of service design approaches. It would have been beneficial to also test this framework with service designers to better evaluate its possible contribution to Service Design having identified service designers as key beneficiaries of this approach—this was only realised once all findings had been collected and analysed, after which there was not sufficient time to orchestrate this.

### 9.3.3 Contextual Limitations

This research was conducted with family households and mostly design experts within the UK. The results, such as unique home happiness needs, positive family experience models and the DfHH, are therefore primarily applicable to this context. However, the home happiness needs (see Section 4.5.1.5) and emotional binders (activities) within positive family experience models (see Section 5.5.1.5) were shown to relate directly to Maslow's Hierarchy of Needs, displaying at least some potential transferability beyond the primary research context (UK) and sample (UK family households). Furthermore, the DfHH, informed by these findings, was tested in Ireland, retrieving similar results to its deployment in the UK, illustrating its potential for supporting 'designing for home happiness' in other Western countries (see Section 7.6.1.3). However, the DfHH does not appear to have any obvious contributions to unhappy homes in developing nations; the HHDT use Maslow's Needs pyramid, originally conceived from a US sample, and were constructed using data around home happiness from UK professional-middle class families. Accordingly, it would be ideal to explore the DfHH in different cultural and national contexts to test and validate these assumptions further.

## 9.4 Contribution to Knowledge

This research establishes novel theories and creative methods for exploring 'designing for home happiness' to support more sustainable lifestyles. It has pioneered the use of art therapy techniques within design research, introduced new theories and frameworks to facilitate designs for happiness within the home and community. This research poses potentially positive ramifications for Service Design, creative design methods, social innovation, Design for Happiness and Design for Sustainability.

### *Design for Happiness*

This research examines home for the first time from a *long-term happiness perspective* to located 'Design for Happiness' opportunities in this context, identifying *unique home happiness needs, complementary to the characteristics of happy and sustainable societies*. The resulting Home Happiness Theory and the Designing for Home Happiness Theory explain how designers can 'design for home happiness' by supporting these needs, activities and characteristics.

### *Creative Design Methods*

The creative methods used and developed in this research also present new knowledge for creative design methods. Photo elicitation was employed as a creative method to explore home happiness, presenting a *different approach* for investigating design in this context. Additionally, this research provides the *first comparison* between art therapy techniques and creative design methods, locating current gaps in design knowledge. Furthermore, it *pioneers art therapy techniques in a design context*, providing a *new creative method* to potentially explore and design for positive experiences. The DfHH also supplies novelty to this area by being the *first creative design method for 'designing for home happiness'*, employing *original Home Happiness Design Tools* and process.

### *Service Design*

Art therapy techniques (i.e. Happy-Homes workshops) afford service designers with *a new creative method to investigate experiences/contexts*. They appear enable the explanation of subjective moments, showing potential in facilitating the development of new or existing related services and/or PSSs. Moreover, the DfHH could enable service designers to *directly design for home happiness* by using original HHDT with service design tools to conceive home happiness designs, applicable for further development in codesign sessions.

### *Social Innovation*

The DfHH also possibly provides some contributions for social innovation; it could present an *alternative method for social innovators*. By employing a codesign approach and shifting the end goal from design outcomes to community organisations, social innovations might be designed directly using the DfHH.

### *Sustainable Design*

Lastly, these research results appear to provide contributions to Design for Sustainability; if activities for long-term happiness can encourage more sustainable behaviour, the DfHH possibly supplies an *unconventional design method for Design for Sustainability* by facilitating 'designing for home happiness'.

## 9.5 Recommendations for Future Work

This research presents promising opportunities to improve home happiness, motivate more sustainable lifestyles, and create deeper understandings of subjective experiences in future design, Service Design and social innovation projects. It is hoped that the DfHH and Happy-Home workshops could be used as complementary approaches to codesign methods to inform future design in these areas. It is anticipated that the DfHH could be employed by designers more generally, such as product/industrial designers, service designers, interior designers, architects, and potentially community members to create corresponding designs and/or social innovations supportive of happy and sustainable practices around home and the locality. Art therapy techniques, applied in the format of the Happy-Home workshops, could also provide a novel approach for design researchers, and possibly researchers from other fields and design practitioners to investigate subjective experiences to inform related projects. Opportunities for continuing and advancing this research are listed in the following:

- Recruiting a group of all design practitioners to create outcomes with the DfHH to evaluate its usability with this audience.
- Employing the DfHH in a codesign manner, where community members play an active role in conceptualising home happiness designs with designers to test its usability through this approach.
- Testing the DfHH in creating home happiness designs and/or social innovations for disadvantaged communities that include those cohabiting and living alone. Propositions resulting from workshops should be presented to relevant stakeholders to develop concepts into prototypes to be launched and trialled over a period within the neighbourhood. Results from the intervention should be analysed for evidence of enhanced home/community happiness, using a mix of quantitative (i.e. Likert scale questionnaires) and qualitative (i.e. semi-structured interviews) methods achieving the following:
  - Further validation of the DfHH's appropriateness in creating designs propositions that are applicable to unhappy homes.

- A context to evaluate the DfHH's predicted ability to complement and supplement codesign sessions.
- Verification for the DfHH and corresponding theories for improving home happiness by assessing the successfulness of home happiness designs in improving home happiness.
- Conclusive evidence of the DfHH's suitability for creating home happiness designs relevant for single occupancy households as well as those cohabiting.
- Applying the DfHH in other countries to investigate its relevancy within these instances and locate additional areas of investigation for 'designing for home happiness'.
- Exploring art therapy techniques, using the Happy-Home workshop format, in other design research contexts with a gender balanced sample to inform and support service design projects, design concepts more generally and social innovation to:
  - Add further robustness to using art therapy techniques for exploring designs for positive experiences with groups of women *and* men.
  - Provide further insights into how these methods could be used within design research.
  - Present opportunities to test the transferability of the original Happy-Home workshop format in other contexts while also highlighting any necessary adjustments.

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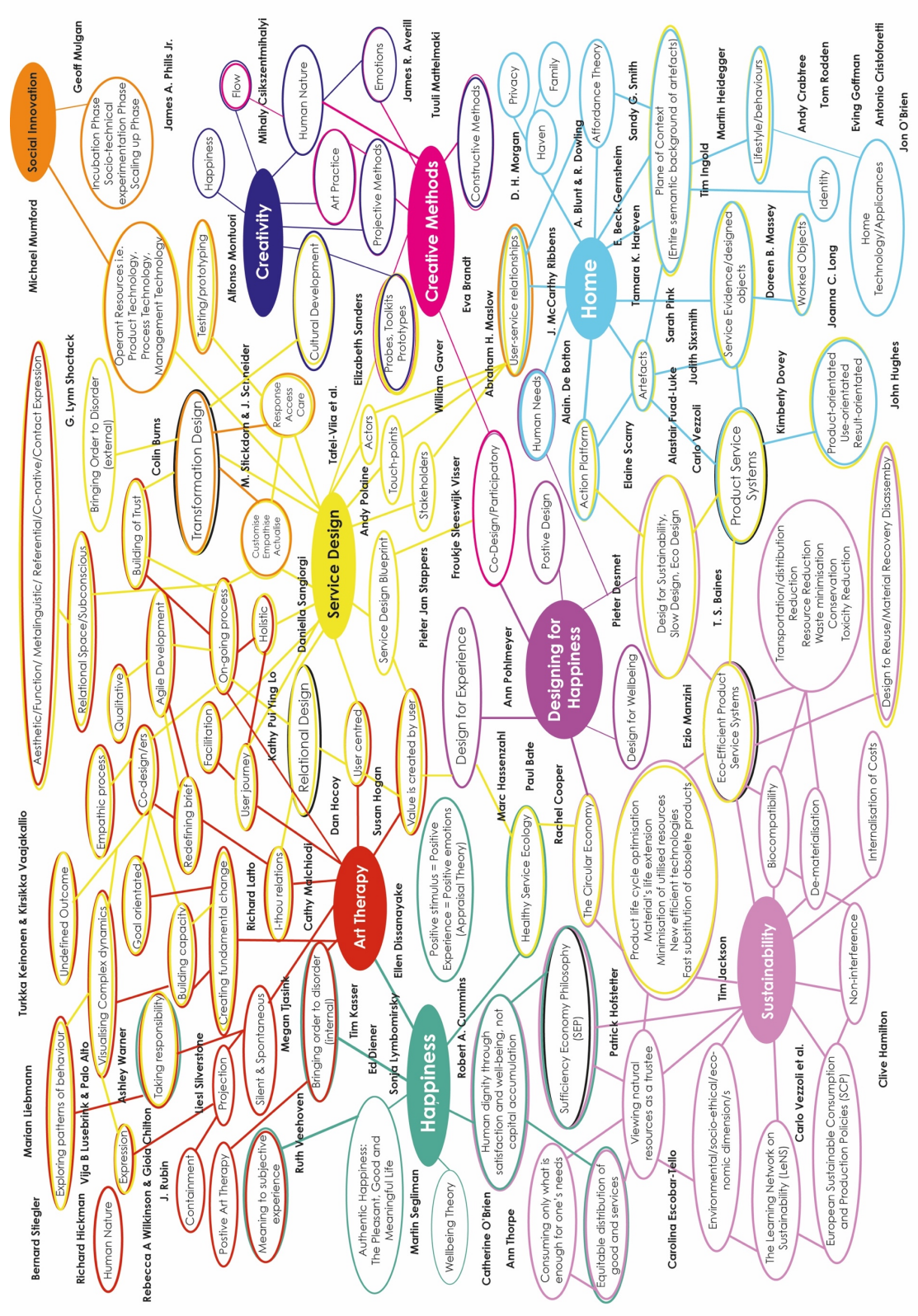
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# Appendix A.

Map of Key Concepts and Authors within Research Context



# Appendix B.

## Phase I Semi-Structured Interview Schedules

## **Preliminary Study Semi- Structured Interview Questions (Photo Elicitation)**

- Introduction
  - Introduce self
  - Purpose of interview
  - Confidentiality
  - Permission to take notes/and or record interview
  
- Warm-up questions
  - What did you think of the task? (enjoy or not enjoy it)
  - Do you have any favourite images? / Highlights of home life? / What would you like to start with?
  
- Main questions
  - What were you feeling when you took this image?
  - Why?
  - Feelings/actions before/after image taking if appropriate
  
- Cool-off
  - Have you found this useful?
  - Why?
  - Is there anything that you will do differently? What & why?
  - Describe your ideal home... things that are important in a home and fantasy home

## **Preliminary Study Semi-Structured Interview Questions (Video Elicitation)**

- Introduction
  - Introduce self
  - Purpose of interview
  - Confidentiality
  - Permission to take notes/and or record interview
  
- Warm-up questions
  - What did you think of the task? (enjoy or not enjoy it)
  - How did it make you feel?
  
- Main questions
  - Did you become more aware of your home environment and if so in what way?
  - Is there anything that you will do differently? What & why?
  
- Cool-off
  - Have you found this useful?
  - Describe your ideal home... things that are important in a home and fantasy home

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## Study I Semi-Structured Interview Schedule

### **Warm up** (5mins)

How did you find the exercise? Did you enjoy it?

### **Main Questions** (up to 50mins)

#### Part 1 – Images (for each day)

1. Tell me a story of what you did that day and refer to the images.

*(Optional prompts for each image)*

- Where was this image taken?
- What time of day was it?
- What were you doing/thinking/feeling?

#### Part 2 – Reflections on Home

2. Do you have a favourite place/activity in the home? Where/what and why?
3. Do you have a least favourite place/activity at home? Where/What and why?
4. Is there anything that you became more aware of by doing this exercise?
5. Is there anything you would change as a result?
6. What makes home feel like home for you?
7. Have you ever had a pet in the home? What was that like?
8. How does your home reflect/not reflect you?
9. What do you *need* in a home?
10. Where do you and your family spend most of your time together?
11. Do you think this area could be improved and how?
12. Do you get enough family time together at home?
13. When do you get 'me time'?

### **Cool off** (5mins)

14. What would your ideal home look like?
-

# Appendix C.

## Samples of Preliminary Study Data Analysis

| Photo Elicitation Method   | Memo Extract   | Field notes Extract   | Emerging Codes   |
|--|--|---|--|
| <p>What do these <i>images</i> infer about the person in relation to home happiness?</p> | <p>Objects that symbolise personal relationships are very important. They appear to offer individuals a sense of connection to others. Customisation is important. There appears to be a tendency for both homeowners and renters to personalise their home environment. However, renters seem to focus more on temporary alterations due to having less control over their home environment. Feeling safe and secure also seems to feature a bit but not as strongly as connection to others through artefact displays, and creation of comfort through the same means. Pets also seems to play a role here. They contribute to that feeling of home.</p> | <p>This participant enjoys nature and being outside. They also seem to have a very keen interest in cats. Their home has lots of cat orientated imagery and ornaments. They also don't seem to like clutter. Their home is quite minimalist in places. I think I see an image of a pet cat. Yes, participant confirmed it is their pet.</p> | <p>Display of artefacts for meaning<br/>Evidence of connection to others<br/>Personalisation<br/>Control<br/>Values<br/>Security<br/>Comfort</p> |



|   |  |  |  |
|---|--|--|--|
| <p>Are there certain artefacts and/home environment scenarios that feature during positive or negative experiences?</p> | <p>Broken appliances or those that work badly, and objects associated with household chores seem to occupy a lot of negative imagery. Positive experiences appear to be supported through control over the space, to create comfort, somewhere that reflects one's tastes, such as personal tidiness standards and ornamentation. Security was also expressed as a concern for some, especially when they are the only person in the house. Again, there seems to be a connection between home happiness and having a sense other people around—either physically or through the display of corresponding imagery (i.e. family photos). Green space is also an important feature—perhaps because its ties in with a sense of freedom and control in the world. Being out in the world can often be associated with achieving a goal. Achieving goals is included as a characteristic of happy and sustainable societies as part of 'Design for Happiness'.</p> | <p>The garden features heavily in this participant's enjoyment of home. They even have a window set up next to the window where they sometimes work as its quieter to work there than the office sometimes. Again, they stress that control over noise and access to natural light is very important. They don't like being alone and sometimes find that security is a concern because they are alone a lot in the house. They are very aware of locking the door and making sure that the house is secure.</p> | <p>Lack of control<br/>Lack of freedom<br/>Control<br/>Comfort<br/>Values<br/>Personalisation<br/>Security<br/>Connection to others<br/>Freedom<br/>Achieving goals<br/>Happ-sus practices</p> |
| <p>Is there enough content to make useful conclusions about home happiness, answering the second objective?</p>         | <p>A lot of content has been generated by this method. 5 people have created almost 200 images. There definitely seems to be promise in employing this method to explore home happiness. The images are effective prompts to guide interview discussions and to pick up on points that could otherwise be missed. The participants also seem really engaged as they get to speak about imagery they have captured at home, which generally means that it has emotional relevance to them.</p>  | <p>Yes, we have only examined about 10 images and already I see themes for the need for security, open space and freedom to pursue one's interests and exhibit imagery that display one's values.</p>  | <p>Enjoyable<br/>Emotional<br/>connection<br/>Abundant<br/>Engaging prompts<br/>Identifying home needs</p>   |

|  |  |   |  |
|--|--|---|--|
| <p>Are any modifications necessary?</p>  | <p>This method seems relatively easy for participants use and they have reported enjoying the process. However, a lot of content has been generated between five people and it was hard in some instances to get through it all with participants within 40 minutes. It's hard to tell how these images relate to practices in the home or daily routines, which could be useful in understanding what happiness enhancing activities are more important than others. The days of recording imagery should be restricted to two typical days, maybe one working and one nonworking. If participants were asked to capture routines instead of emotions, surely their emotions (i.e. happiness or sadness) would come through in their conversations and how they describe their time on each task.</p> | <p>The participant seems happy and enthusiastic to go through the images. The interview could definitely last longer as the time is almost up and we're only just over half way through the images. Maybe a full hour would be better rather than 40 minutes.</p> | <p>Easy<br/>Enjoyable<br/>Time consuming<br/>Abundant<br/>Relationship to routines<br/>Modifications<br/>Potential</p> |
| <p>Video Elicitation</p>   | <p>Memo Extract</p>  | <p>Field notes Extract</p>  | <p>Emerging Codes</p>  |
| <p>What do these <i>interactions</i> infer about the person in relation to home happiness?</p> | <p>They illustrate natural goings-on in house, but they are very hard to decipher in relation to home happiness. Although it's clear from the shaking clips that the recording is at least having some interference on the home activity being depicted.</p>   | <p>I don't think they really say anything about home happiness unless the participant properly elaborates on the depicted activity. But even then, they end up discussing how the method interfered with the task.</p>  | <p>Hard to decipher<br/>Interfering with home practices</p>  |

|  |  |   |   |
|--|--|---|---|
| <p>Are there certain interactions and/home environment scenarios that feature during positive or negative experiences?</p> | <p>The participants found the task a bit irritating. Having to hold a camera while performing home activities created a disturbance and appears to have even interfered with home happiness in that moment. It's really hard to decipher what emotions are going on in the video footage. The movement seems ambiguous in relation to home happiness. I can input my own emotional reactions onto the footage I am seeing but cannot make any clear interpretations of how each clip relates to the individual's happiness.</p>  | <p>Having to use the method caused some irritation in participants when carrying out activities, and some cases also their household members. I think it directly interfered with a need for functionality and privacy in the home.</p> | <p>Interfering with home happiness?<br/>Interfering with home practices<br/>Hard to decipher<br/>Bias</p> |
| <p>Is there enough content to make useful conclusions about home happiness, answering the second objective?</p>            | <p>No, I really struggled to construct useful interview questions from this content. I spent most of the interview asking the participants to explain to me what was happening in each image, what time of day was it and if it represented any particular feelings for them. They both confirmed that it was difficult to decipher the accuracy of their feelings in that moment as it was distracted from using the camera. Also, others in the house kept asking 'what are you doing?' and some got annoyed as they didn't want to be in the view of the camera.</p>  | <p>No, this method requires serious alterations to become a useful elicitation tool for this project. I not sure if it worth exploring as the photo elicitation method interviews have been going a lot better.</p>                     | <p>Lots of alternations needed<br/>Hard to decipher<br/>Interfering with home happiness?</p>              |
| <p>Are any modifications necessary?</p>  | <p>Yes, if I was to modify this method, it would need to cause minimal disruption to home life by either not needing to be held by the participant and perhaps situated in one or two main rooms of the house for one typical working and nonworking day. That way participants could be observed in a more natural way and it may record more meaningful footage, such as how participants negotiate and share the kitchen space, and that may or may not lead to happy home experiences. However, this would involve sourcing equipment and finding participants that are happy to have this set up in their home.</p> | <p>Yes, this interview is not going well. I'm struggling to find things to talk about with this participant. I think we will end the session early.</p>   | <p>Lots of alternations needed<br/>Hard to decipher<br/>Time consuming</p>                                |

## Appendix D.

Samples of Study I Memos and Session Summary Sheets

## Study 1: Analysis of Participant H5A1 Images before Interview 26/5/15

(Non-working day)

1. Baby having breakfast (happy), in the dining area
2. Child watching TV in the living room, lots of toys and birthday card, very colourful environment
3. Child painting in the dining area and baby eating, packaging of paints open on the table and breadstick package on the ground
4. Child painting again and baby eating
5. Laundry hanging outside, colourful, blue car next to it.
6. Laundry (dirty/clean) and washing machine

(Kitchen dining area seems to be the main area for activity – eating, creativity)

7. Worktop outside kitchen area, bagels, other food, toy blue cars, birthday card, hand cream?
8. Family together, eating dining area
9. Kitchen area
10. Baby sleeping, dressed in blue
11. Laundry basket, window sill, with toys (bedroom)
12. Bedroom, mother's hand, child
13. Bedroom, child and mother in bed reading
14. Same
15. Kitchen, dishwasher, cleaned containers (for recycling?), very colourful, pills of clean dishes above dishwasher

Overall impression – very busy with moments of quiet, chaotic at times but full of colour and life! Dining room area appears to be the centre of activity in the home.

(Working day)

1. Child in parents bed watching something on an ipad device, in bedroom
2. Baby trying to get breakfast food on the table in dining room area
3. Baby upset that they can't get at the food on the table, in dining room
4. Packed bag for work?
5. Child holding toothbrush – toys on floor behind
6. In bathroom, bathroom counter and mirror with toothbrush, toothpaste, medicine spoon
7. Baby coming into bathroom, mixture of things on the floor on the landing in the background
8. Baby and toothbrush – she doesn't look happy
9. Baby using tooth brush
10. Same
11. Child on the bottom of stairs (clothes on the stairs and bottom of stairs)
12. Same but children are putting on shoes, can see adults shoes at the bottom of the image.
13. Same without adults shoes
14. Baby in blue car, about to leave for work?

15. Dining area, children eating, piano/electric piano in the background – who plays it and when? (Things on top of it, does it get used often?)
16. Washing machine close up
17. Conservatory area, washing machine, laundry with basket of clothes (clean or dirty?), garden area, toys and hardware and plants (tomato) on top of washing machine.
18. Kitchen worktop, bagel partially eaten
19. Microwave, kitchen worktop, bread, sultanas
20. Dinner? Living room area, toys almost framing the TV, postits on left-hand side wall
21. Same

## **Study 1: Session Summary Sheet for Semi-Structured Interview with Participant HIAI 2/6/15**

### **1. Who was involved?**

Researcher and participant from household 6

### **2. What issues were covered?**

- The exercise was hard to get into because their routine can be quite regimented and fast moving so taking pictures can be difficult to remember to do.
- Wake up every morning is by two children need to 'do a poo' in the en suite bathroom of the parents' bedroom. First child comes in and then the second child. Parents usually get to sleep in between the children coming in.
- Breakfast usually happens after. They tried to time it so the children have their breakfast in the kitchen together and then they can have their toast and tea in the lounge with the TV so have some time to themselves
- Lunch time that day (day off) had to be quick as daughter was getting upset. She gets very grumpy when she is hungry
- After trip out the children were playing quietly and this allowed the participant and husband to have some down time which involved biscuits, tea and TV.
- They went swimming and the children have the remainders of the meat pie for dinner. Adults tend to eat later on not with the kids as meal times with the children can be quite stressful. Sometimes go for run before dinner but hard to motivate self to do it, says they're not 'very good at running'.
- Easy to watch kids if doing activities 'stuff'
- Regimented bedtime routine but hard to capture and do at the same time hence no images.
- Evening tends to entail sitting in front of TV with husband (possibly with wine at the weekends) and some reading in bed before sleeping
- Same wake up call on work and nonworking days but morning is a rush on weekdays. Daughter picks a toy to take to nursery in the morning and this can take a while.
- Does night classes in drawing once a week for 2 hours in the evening and loves this. Part of them 'getting their life back'.
- Love dining room as it has patio doors that look onto the back garden, round dining table, kids don't really go there, comfy chair, their 'cup of tea place', art folders
- Like the kitchen when it's tidy, everything is in the right place. Love the garden and enjoy doing gardening. Lounge is dark but 'comfy'
- Don't like putting the washing away as it's monotonous, takes time to sort through and put on the hangers.
- Doesn't like the 'nerd cave' upstairs. Messy, partner's space but always messy. Nice room but always messy. Use oil pastels in that room but need tidy the room before they can use it.
- Exercise made them wonder why their son always gets up to use the toilet in their room too but didn't make them want to change anything.

- Home feels like home with husband and kids, pictures of family, nice rugs and comfy cushions and lots of stuff the family have made
- Never had pets as husband is allergic to every animal
- Need warmth, family in a home as they're always playing, laughing, cuddling, pleased to see you, smiles
- Would like the kitchen to be bigger.
- Feel they get enough family time together – not much support from extended family
- Ideal home would have a nice big garden – some where the kids to run around that is safe, a dedicated art room, bigger kitchen as in current kitchen you need to move table around, another room for Jim – current room is dark with sloppy roofs.

### **3. Relevance to research question?**

(What are the most important qualities for a home from a happiness/wellbeing perspective?)

Time for yourself and to follow your hobbies (spaces that you can do this in) and when you have children time away from the children. A safe place for the children to be so the parents can relax. i.e. garden, playroom. Place of comfort to relax. That tactile aspect i.e. comfy cushions and rugs. T.V seems to play a special role during times of relaxation. Used when enjoying tea or wine when children are elsewhere. Generally, on in the background during periods of relaxation.

### **4. What new questions are suggested?**

When you have 'me time'?

### **5. What are the implications for the next round of data collection?**

Perhaps a further focus on how parents achieve time for themselves while maintaining their children's safety is important to look at. They try to achieve a balancing act between personal and their children's wellbeing/happiness. It is this balancing act that I am starting to find fascinating. A home with a large garden seems instrumental in this. I wonder how this differentiates for people not living with young children. Do they instead try to incorporate social interactions? Their priorities will naturally be different.



## **Study I: Memo Samples**

### **Memo 15/7/15**

Stress seems to be a factor in the routines of home and in governing how they are shaped... 'if I time it just right I can go into the lounge and have my breakfast which makes a really nice start to the day'. This causes the need to for relaxation in some cases a separation from the children but only as long they are judged to be safe. Meal times with the children are stressful (too much noise i.e. talking and spillages) and are therefore generally kept separate which causes two sets of different meals being cooked during the week. Everyone has their own separate schedule which can make collective meal times difficult to navigate. The desire for a big garden 'for the kids to run around and hide in' perhaps away from the parents is quite appealing because parents know they are safe and can properly relax. It's (use of time) as much about the parents' wellbeing as the children's. Currently TV and the reduction of general chores/delaying of them also plays a role in the need for relaxation. The difficulty in participants remembering to take photos could indicate just how much of our daily routines are done on autopilot and we are rarely consciously aware of them. Bedtimes are 'full on' and very regimented and hard to capture. It's just about getting it done. Perhaps there is a way to change the perception/experience of home to reduce stressful times or the perception of the franticness... to encourage more activities that can be done together as a family i.e. cooking and meal times. Perhaps the presence of a creative artefact in the home could trigger future creative endeavours. Are there ways of seeing things from other perspectives using art therapy? /but how does this relate to sustainability... greater cooperation and family cohesion in the home? Would this in turn encourage greater time spent together? How I can I limit the escapism needed from each other?... building even greater closeness and thus resilience. Perhaps this could be done using ideas from positive art therapy?

### **Memo 16/6/15**

There seems to be an awful lot of emphasis on time... something I expected but also on the ownership of time i.e. her time, his time and me time and how this plays into overall wellbeing and happiness and of course trying to get a grasp on it. Performing a task 'if can'. So there's ownership and control all relating to time... fear of children growing up and leaving... disruption of home routine... what makes home feel like home... the people. Idea of giving children time 'her time' 'his time' but also creating 'adult time'. There are positive times and negative times throughout a day. It is possible to transfer the negative time in a day to positive later on. You can recreate or control your own concept of time i.e. wasted or productive. Some activities offer a greater reward than others... planting the garden shows flowers and plants growing over time, cooking has physical outputs. Routines can almost be seen as to stand time still or create an artificial stillness even though time is forever moving... repetition can even seem comforting i.e. the cat signalling the evening... comes to join in the living room... creates the illusion of control by its expected behaviour. Perhaps a happy sustainable home can be seen as one which creates the illusion of control... even control of time i.e. I have time to... I give her time to .. he has time to ... that gives me time to...time to do the things you want on a regular basis. Contradiction though, if something streamlines routines then time appears to go much faster but perhaps this doesn't matter if the 'time' been seen to be productive and entails a variety of work and family-based activities. Perhaps this is what would constitute a good day as opposed to a bad day. Maybe I should email participant's this as a follow up question... What constitutes a good day at home and what constitutes a bad day at home?

## Appendix E.

Samples of Study I Thematic, Open and Axial Coding

# Study I: Interviewee HIAI, Sample of Thematic and Opening Coding, 2/6/15

- Time
- Action
- Emotion
- Privacy
- Thoughts
- Household Routines/Norms
- Needs
- Home Facilities
- Physical factors for home life happiness

Household 1 Transcription 2/6/15  
LDS 1.24, 10am – 11am

I found it difficult to remember at the start of the day

Once I'd remembered then I was fine but I did lose it on the Saturday on the second day near the evening that's just because everything... when the kids

0:26 go down... it just sort of goes out of your mind. en ye it was fine

0:51 I focused on a bit of routine and things that made me happy. [The things that made me sad I didn't take pictures of... So I can... Zoe had a hissy fit not that it made me sad but made me cross but you can't really go and get your phone and take a picture of somebody having a hissy fit so em ye its fine

Commented [SS1]: Images are a reflection of happiness

1:57 If it was the weekend one I think the week day starts the same and its how we're woken up with either one of the children coming in to go to the toilet... for a pool So that's how we start our day. We don't bother with alarm clocks anymore we just have them come in at 6 in the morning so that's why there's a toilet there

Commented [SS2]: Personal hygiene, family care

2:28 I'm pretty sure this is the weekend you know coz I'm pretty sure they both came in whereas on the weekday they didn't

2:39 So we go back to sleep for a little bit and then we get woken up again... ye that's them going to the toilet again

Commented [SS3]: sleep

Commented [SS4]: Personal hygiene

3:01 Then they went and played downstairs quietly so we could then have a bit more sleep so that works but quite nice

Commented [SS5]:

Commented [SS6]: noise

Commented [SS7]: sleep

3:10 and then we get the kids breakfast

Commented [ED8]: Family care

And then while they're have their breakfast, then I get mine... I make sure they're sitting having theirs, then I get mine and I take mine into the lounge and I have TV mummy time which is really nice so I always time it so that they're sat eating before I get mine otherwise if I get mine they'll come in and play with me while I'm eating my breakfast which I don't want

Commented [SS9]: Eating well

Commented [ED10]: Self care

Commented [ED11]: Family care

Commented [SS12]: privacy

Commented [ED13]: relaxing

Commented [SS14]: need for privacy

4:00 They're in the kitchen

4:09 that's me getting my toast ... cup of tea

Commented [ED15]: Self care comfort food

4:16 And actually that can make a really nice start of the day if I get it timed right so that I get a bit of time just to have my tea and toast in quiet and that's quiet nice

Commented [ED16]: noise

Commented [ED17]: noise

4:33 That's the TV, watching the TV while I'm eating my breakfast

4:44 And then it's getting them dressed and their teeth cleaned and then I get my makeup ready while they carry on playing upstairs

Commented [ED18]: family care

Commented [ED19]: self care

4:57 That's me getting ready. And then because it was a weekend we then went to Bragget Park

6:06 This is lunch time. It had to be quick coz at this point Zoe was kicking off coz once she gets hungry that's it, game over. So that was beans on toast. I had planned to give them pie cooked pie but coz we stayed longer than we thought we would it has to be a quick quick meal. ... I think we had sandwiches Jim and I

Commented [ED20]: family care

Commented [ED21]: self care

6:39 [They went off and played really nicely coz I think they'd had a lot of outside time so we could sit down and have a cup of tea and biscuits ... haha that's always really nice

Commented [SS22]: Green spaces having a positives effect on behaviour

Commented [ED23]: self care relaxation comfort food

7:04 After this we then went and discovered he'd (Isaac) had done a really nice picture. We've got a set of doodle draws in the kitchen so they can just help themselves to different things so then ye Zoe she was just rolling around on the floor but actually being quiet. She's quite a chatterbox but em.. so it's quite a nice after being outside to then have a cup of tea

Commented [ED24]: family care

Commented [SS25]: creating appropriate space for self needs

Commented [ED26]: noise

7:28 I think the next picture is a cup of tea and a tele... and while this is going on I think the next one Zoe is she's just lying on the floor playing with the cushions... just entertaining herself so that's really good

Commented [ED27]: self care comfort food

Commented [ED28]: self care relaxation, comfort food drink

8:06 And then we went swimming

Commented [ED29]: self care family care exercise

8:34 And then we came back and I think that's when I sort of forgot so ... pictures the next day

8:47 This is tea... I made a pie. So that's a meat pie. Ye my mum taught me. It's something I've had all childhood and then she taught me that week... so I made it for us. It was really really nice. And the kids loved it so that was really really good

Commented [ED30]: Family care

Commented [ED31]: family care

Commented [ED32]: family care

9:21 But we don't eat with the kids. We eat later on. I don't think I took a picture of that

9:28 \*Long inhale\* We're trying to eat more with the kids at the weekend but you just can't really enjoy your food

## Study I: Sample of Further Theme and Properties Development using Axial Coding

### Community Care

(Self-esteem & resiliency – support network)

(consistency) (companionship)(Security) Knowing & socialising with neighbours

(companionship) Participating in local area i.e. clubs, volunteering

(Self-esteem) **Self-care:**

(Physical self-care)

(consistency) (self-love) (Comfort) Relaxing

(consistency) (self-love) Adequate Sleep

(consistency) (self-love) Eating well

(consistency) (self-love) Exercise

(consistency) (self-love) Personal hygiene

(Psychological self-care)

(consistency) (self-love) Pursing one's interests

(consistency) (self-love) Achieving one's goals

(companionship) Extraversion/socialising

(reflection of self) Performing acts of kindness/Altruism

(reflection of self) (freedom) (self-love) Self-expression (dressing/presenting yourself and/or living space to reflect you values/preferences)

(comfort) Exposure to nature

(Self-esteem & resiliency) **Family care:**

Psychologically caring for each other

- (companionship) listening & talking to each, laughing
- (companionship) spending time together
- (reciprocal love) compromising
- (reciprocal love) showing appreciation
- (reciprocal love) Teaching/learning from each other

Physically showing care for each other

- (reciprocal love) (comfort) physical affection
- (reciprocal love) (consistency) performing basic needs tasks for others (i.e. preparing food)
- sharing spaces and resources
- (reciprocal love) working as a team
- (consistency) Maintaining functionality of space for all occupants to fulfil self-care needs
  - (reciprocal love) (comfort) repairing basic needs spaces & appliances
  - (reciprocal love) (comfort) cleaning basic needs spaces & appliances
  - (reciprocal love) (comfort) tidying/ordering of inside and outside domestic spaces
- Creating appropriate space for all occupants to fulfil self-care needs

- (reciprocal love) (Freedom) (Privacy) Personal space
- (reciprocal love) (comfort) (Freedom) Enough space for occupants' basic needs

(Self-esteem – home is a reflection of values)

**Home care** (to one's personal satisfaction/taste, space of comfort/relaxation):

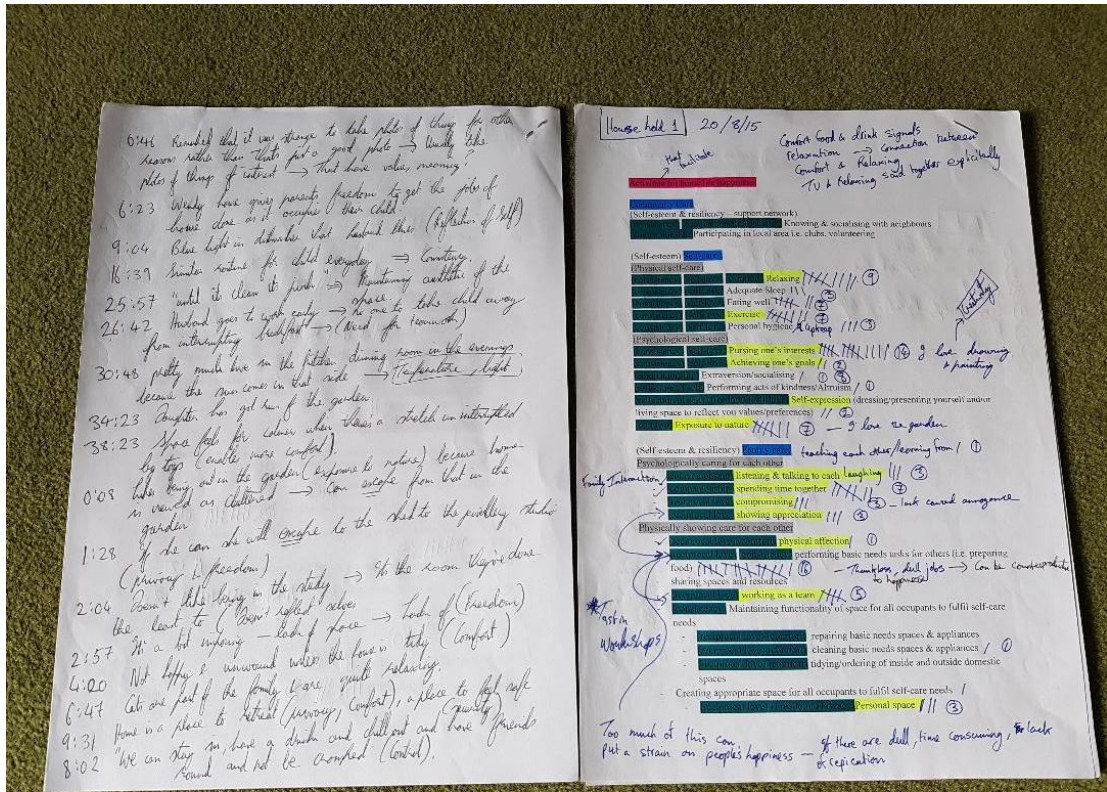
- (Comfort) (Freedom)(Control) Creating physical comfort
  - noise level
  - temperature
  - lighting
  - smell
  - use of soft furnishings
  - access to comfort food and drink
  - Creating the right balance between order and messiness
- (Comfort) (Freedom)(Control) Maintaining desired appearance of the space
  - Redecorating
  - Cleaning/tidying
  - Repairing
- (Comfort) (Freedom)(Control) Personalisation of space (to preferred aesthetic & to reflect values)
- (Comfort) (Freedom)(Control) Creating separation between work and home life space
- (Freedom)(Control) (Privacy) Tailoring a space to one's interests or personal tasks (creating personal space)

## Appendix F.

Samples of Counting Technique Usage During Study I



# Study I: Print-out Sheets Used for Counting Theme and Code Occurrences in Transcriptions with Accompanying Handwritten Memoing





## Appendix G.

Samples of Study I Deductive Analysis Using Escobar-Tello's (2010) A  
Priori Codes

**Study 1: Further Development of Themes into Need Groupings with Corresponding A Priori Codes in Green** (yellow highlighted text indicates those that are the most promising for further development)

**1. Love (Self Love)**

1. Pursuing interests **Achieving/pursuing Goals, Self Esteem**
2. Extraversion/socializing **Extraversion, High interaction**
3. Achieving goals **Achieving/pursuing Goals, Self Esteem**
4. Relaxing/resting **Slow Change, Holistic Health, Self Esteem**
5. Exercise **Extraversion, Holistic Health, Self Esteem**
6. Eating well **Holistic Health, Self Esteem**
7. Acts of Kindness, Exposure to Nature **Acts of kindness, Low material consumption**
8. Personal Hygiene **Holistic Health, Self Esteem**
9. Adequate Sleep **Holistic Health, Self Esteem**
10. Self Expression **Holistic Health, Extraversion, Self Esteem**

**2. Love (Reciprocal)**

1. Family time together **Extraversion, High interaction, Low material consumption**
2. Satisfying basic needs for each other (i.e. cooking, cleaning) **Satisfying Basic Needs**
3. Working as a team **Extraversion, High interaction**
4. Acts of Kindness **Acts of kindness, Self Esteem**
5. Listening, talking, laughing with each other **Holistic health, Extraversion, High interaction**
6. Creating personal space for each other (i.e. giving each other privacy) **Acts of kindness**
7. Compromising **Extraversion, High interaction**
8. Physical Affection **Holistic Health, Extraversion**
9. Showing appreciation **Extraversion, High interaction, Acts of kindness**
10. Sharing spaces and resources **Extraversion, High interaction, Sharing products & resources, Low material consumption**
11. Teaching/learning from each other **Extraversion, High interaction, Virtuous Skills & Ethics**

**3. Companionship**

1. Family time together **Extraversion, High interaction, Low material consumption**
2. Extraversion/socialising **Extraversion, High interaction**
3. Knowing and socialising with neighbours **Extraversion, High interaction, Strong communities**
4. Participating in local area i.e. clubs, volunteering **Extraversion, High interaction, Strong communities, Active citizenship**

**4. Comfort (ability to mentally and physically relax) – it has been suggested in the data that company of others, the sounds they make allow for further relaxation**

1. Creating physical comfort (i.e. temperature, noise, lighting, smell, soft furnishings, balance between messy and tidy) **Holistic Health, Satisfying Basic Needs, Self Esteem**
2. Relaxing/Resting **Holistic Health, Self Esteem**

## 5. Reflection of Values

1. Maintaining desired appearance of space (i.e. cleaning/tidying, redecorating, repairing) **Slow Change, Self Esteem, Achieving/pursuing Goals**
2. Personalising the space to one's aesthetical preference **Holistic Health, Self Esteem**

## 6. Consistency (allows for...)

1. Spending time together **Extraversion, High interaction**
2. Achieving goals **Achieving/pursuing Goals, Self Esteem**
3. Relaxing/resting **Holistic Health, Self Esteem**
4. Exercise **Holistic Health, Self Esteem**
5. Eating well **Holistic Health, Self Esteem**

## 7. Freedom (allows for...)

1. Pursuing interests **Achieving/pursuing Goals, Self Esteem**
2. Achieving goals **Achieving/pursuing Goals, Self Esteem**
3. Personalising the space to one's aesthetical preference **Holistic Health, Self Esteem**
4. Tailoring space to one's personal tasks **Holistic Health, Self Esteem**

## 8. Privacy

1. Creating personal space for each other (i.e. giving each other privacy) **Acts of kindness**

## 9. Control (allows for...)

1. **Achieving goals** (could be conducted with others) **Achieving/pursuing Goals, Self Esteem**
2. Personalising the space to one's aesthetical preference **Holistic Health, Self Esteem**
3. Tailoring space to one's personal tasks **Holistic Health, Self Esteem**

## 10. Security

1. (allows for) Relaxing/resting **Holistic Health, Self Esteem**
2. Knowing and **socialising** with neighbours **Extraversion, High interaction, Strong communities, Active Citizenship**

**Study 1: Interviewee HIAI, Applying Themes, Codes and Deductive Analysis using A Priori Codes, 2/6/15**

| Responses  | Activities/codes   | Needs/themes  | A priori codes  |
|--|--|---|---|
| <p>And then while they'll have their breakfast, then I get mine... I make sure they're sitting having theirs, then I get mine and I take mine into the lounge and I have TV mummy time which is really nice so I always time it so that they're sat eating before I get mine otherwise if I get mine they'll come in and play with me while I'm eating my breakfast which I don't want</p>   | <p>Eating<br/>Caring for family<br/>Relaxing<br/>Time alone</p>  | <p>Self Love<br/>Reciprocal<br/>Love</p>                                      | <p>Happ-self<br/>Happ-give<br/>Sust-holistic<br/>Happ-slow<br/>Sust-slow</p>            |
| <p>... we take it in turns to read the story the one who's not reading the story to [son] is the one cooking the tea so but this night was really nice because neither of us had to cook the tea so it was just a take away so that was nice... so for this particular evening it was really nice because we think I read a story to [son] then came down... [husband] had ran for the curry and we just had to wait for it to arrive. We had a glass of wine and waited and just watched Tele... it was a real slobby day... slobby evening but we'd had a full-on</p>  | <p>Teamwork<br/>Relaxing<br/>Caring for family<br/>Achieving goals</p>   | <p>Self Love<br/>Reciprocal<br/>Love</p>                                      | <p>Happ-give<br/>Happ-slow<br/>Sust-slow<br/>Happ-self<br/>Happ-goals</p>               |
| <p>I've got four [favourite rooms] if I really think about it. The first one, the dining room. It's a got a lovely round dining room table in there and I just love all the look of it and I've got the patio doors. So it's quite a light you know you can see the garden and stuff so I like... and it's the room that the kids don't really go in so quite often I'll go there and I've just rearranged it so there's a comfy chair in there so that's my cup of tea place now...and the reason I like it at the moment is that's where I've got my art folders and I quite like looking through what I've done and I get quite a bit of enjoyment from sort of re-finding myself. I mean having that so that's my little... that's my really nice place. Another favourite is the kitchen... em when it's tidy, only when it's tidy because if it's not tidy I can't bear it. I like that just because of the way I've got the table. The kids will be doing pictures while I'm washing up. I love the</p> | <p>Relaxing<br/>Personalisation<br/>Achieving goals<br/>Time alone<br/>Cleaning<br/>Caring for family<br/>Pursuing interests</p> | <p>Self Love<br/>Reflection of Values<br/>Reciprocal<br/>Love<br/>Comfort</p> | <p>Happ-give<br/>Happ-slow<br/>Sust-slow<br/>Happ-self<br/>Happ-aware<br/>Sust-virt</p> |

## Appendix H.

Study 2 Pilot Sample Questions and Answers from an  
Art Therapy Expert

| Questions   | Answers   |
|---|---|
| 1. Do you understand art therapy techniques as a way to create awareness of one's pre-existing feelings?  | "Absolutely, yes... gaining insight into what has happened to you, how you can try and live with it or get over it or do something positive about it. Yes, I would say that's part of Art Therapy"  |
| 2. Does Art Therapy ever involve the creation of new knowledge?   | "Often people find things out about themselves that they didn't even know so in a way that's new knowledge"   |
| 3. Are there particular theoretical frameworks that are used predominantly over others within Art Therapy?  | "The most popular now is the person-centred way of working... believing that the person can work it out for themselves of you give them enough help and that empowers the individual and it means that you're not projecting something onto them... So now we're very much focused on the voice of the patient and what it means for them, their experience and you can't really get that without a person-centred approach."   |
| 4. The meaning of the image created can change over time in an art therapy context – would you agree with this?   | "Other images you make can link to that image and then you can remember something else through that image and I supposed people can change the meaning that they put to the image at the beginning and give it another meaning at the end. I guess they can"  |
| 5. Constraints to the art making process should be limited as tasks that are too circumscribed can interfere with the individual finding their authentic self – you would agree?                                      | "That is an art therapy idea. From an art therapy point of view there are people at this end saying never dictate to anyone what they should use and there's people... at the other end that will often restrict... and often are directive... it depends also on whom you're working with... So, for example if we're running a group I might say ok today we're going to draw a something that happened in our week so it gives them a focus and it can be anything from their week... it's giving it a framework but there is some movement within..." |
| 6. From an art therapy perspective, images we surround ourselves with can influence our unconscious and, subsequently, what we create when we visualise thoughts and emotions – do you agree with this?               | "Absolutely... I think all the time we're taking in images and they're in the unconscious and they come out in different ways"  |
| 7. Our personal art history can also influence how we respond to art materials, and it is important to explore this to avoid this impacting on us negatively when we try to do an art making class – would you agree? | "Yes, often people think ah I can't draw, I can't draw a straight line so there's a resistance sometimes to this idea to drawing or art ... I think it might be worth focusing on that just as an initial thing, asking has anyone got any hang ups about it from school..."  |
| 8. Silence can be incorporated into the art making process to aid in concentration and encourage a  | "A lot of art therapists are quite interested in silence... I know in mental hospitals they often   |

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|   |   |
|---|---|
| greater emotional authenticity in the outcome – do you agree?   | use silence... I suppose it stops contamination in way”   |
| 9. When talking is encouraged in a group scenario, after the image is completed, collective learning is facilitated, which enables deeper reflection in others about the topics under discussion – would you agree?   | “That’s always an aspect of group work – to actually discuss it at the end”   |
| 10. Is spontaneous art creation a visual form of free association?  | “It can be”   |
| 11. Would you consider art creation a form of amplification?  | “Absolutely yes, sometimes an image can shout louder than anything else...”   |
| 12. Is the interpretation of the image by the facilitator or therapist more limited now in contemporary Art Therapy?  | “Ye absolutely, it’s not something in British Art Therapy that we do... Even if it looks glaringly obvious to us we won’t because you’re projecting... You’ll be safe by sticking to what the participant says it means”  |
| 13. Active and empathic listening, this is a means of actively enhancing the individual’s need for being heard by listening to them and by only asking questions that either assert or increase your understanding of what they’re saying – would you say that this is a similar technique that people use in interviews? | “No, because I think in interviews there’s always a sense that they’re trying to catch you out”   |
| 14. Do you think it’s possible to use techniques from art therapy to explore emotions around particular themes or do you think you need to have an art therapist present?   | “Well there are two different things going here. Art therapy is one thing and you’re using the art for a therapeutic outcome. Whereas what you’re doing is using some art therapy techniques, not as therapy for people but as a way of eliciting information. So, you are using it as a research technique... If you go down the art therapy route you’re going to have to back it up with art therapy literature. Whereas if you go down the art as research then you go down a different route obviously and back it up with literature... Some people would say well if you haven’t got the presence of an art therapist you’re not doing art therapy, but I think art can be used in a therapeutic way, obviously, without an art therapist... Because basically asking someone to draw a black line outline of house is not exactly Art Therapy but the way you discussed it afterwards might be. The way they all shared their information and talked about that. However, you have to be prepared for... the flames might have been the house burning down and her parents being killed, something like that coming up in the middle of these little sessions.” |
| 15. Would that happen if you keep the whole thing positive? If you say to people to ‘think of a positive family experience’ would that still occur?   | “People are people and if it triggers something then they might talk about it but I don’t think you should let that stop you really. Just be aware and maybe have some leaflets about   |

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counselling on you or just recommend that they go to speak someone about it. But I think if you're focusing on the positive then you should be alright really"

16. The images we surround ourselves with can influence our unconscious and subsequently what we create when we visualise thoughts and emotions. Do you agree with that?

"Absolutely, I've seen it many times through design and... just walking past something, you don't even take it in consciously but unconsciously it goes in and you use that in something later on. So, I think all the time we're taking in images and they're in the unconscious and they come out in different ways"

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# Appendix I.

Study 2 Sample Semi-Structured Interview Schedule

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**Warm up** (5mins)

1. How did you find the workshop? What are your general thoughts?
2. Has it made you more aware or reconsider any aspects of your home life?
3. If so, what and why?

**Main Questions** (up to 20mins)

4. Your experience of art has been relatively positive?
5. Would you consider yourself quite comfortable using art as a communication tool?
6. Are there any red items in your house that you might connect to the red you used, and the feelings you talked about when discussing your image from Activity 2?
7. Are there any blue items in your house that you might connect to the blue you used, and the feelings you talked about when discussing your image from Activity 2?
8. Are there any yellow items in your house that you might connect to the yellow you used, and the feelings you talked about when discussing your image from Activity 2? For example, you talked about a yellow jug that has the Chocolat logo on it and how it reminds you of “small people being small” and “hot chocolate being used as way into a hot drink and that sort of being a symbol of family time”.
9. Why did you use paint?

*General questions for positive family time image (Activity 3)*

10. What’s happening in this image from Activity 3? – Where are you, who are you with, what are you doing?
11. Describe what you are feeling in this experience? Why?
12. What does it mean to be happy in this scene?
13. What does it mean to be happy generally at home?
14. Is there a certain aspect of or point in this experience that you are enjoying the most? Why?
15. How is the space enabling or adding to this? What objects, shapes, colours, smells or tastes are facilitating this experience?
16. How are other family members enabling or enhancing this experience?
17. How have you and others ended up in this situation? Who has instigated it and how?
18. Is this a ritualistic event or something more spontaneous?
19. Are there times when you might have a similar experience without your family?
20. If so, where and how?
21. Is there something unique that your family brings to this experience that improves it in a positive way?

*Image Specific Questions for Positive Family Time Image (Activity 3)*

22. Do you think there’s connection between the prominence of the Rale Doofy print in your home and the content of your final positive family image? Please explain.
  23. Why did you choose to use this material?
  24. Does this experience remind you of another one that is similar – that makes you feel in a similar way? For example, you used wood in this image and it reminded me of the wooden canoe paddles you discussed in Activity 1.
  25. Similarly, you have used the colours blue, red and yellow. Is there any connection between the feelings you expressed in Activity 2 using these colours in relation to those used in this image?
  26. Whose feet belong to who and why have you made them those colours?
  27. What did you make first and why did you do this?
-

- 
28. Why have you positioned the feet at the bottom of the page and the fire in the centre?
  29. Is there anything missing from this image that you would like to add now? What and why?

**Cool off** (5mins)

30. Is there anything else that you would like to reflect on or add?
-

# Appendix J.

Study 2 Workshop Sample Feedback Form

# Feedback



## Presentation

- 1. The information was presented in a way that was easily understandable. Q1.
- 2. The presenter communicated the information at the right level. Q2.
- 3. The presentation provided the right amount of background information. Q3.

## Activity 1 (Image awareness & personal art history)

- 4. The task had adequate time to be completed. Q4.
- 5. The instructions for the task were clearly presented. Q5.
- 6. This activity drew awareness to my aesthetic and pictorial preferences. Q6.
- 7. This activity drew awareness to my personal perceptions about art. Q7.

## Activity 2 (Spontaneous art making)

- 8. The task had adequate time to be completed. Q8.
- 9. The instructions for the task were clearly presented. Q9.
- 10. This task provided enough structure and freedom for the exploration of the materials. Q10.
- 11. This task triggered visuals relevant to feelings about home. Q11.
- 12. This activity was enjoyable. Q12.

## Activity 3 (Visualising positive family time)

- 13. The task had adequate time to be completed. Q13.
- 14. The instructions for the task were clearly presented. Q14.
- 15. This activity drew awareness to the role I play in my family. Q15.
- 16. This activity was enjoyable. Q16.
- 17. This activity made me appreciate the role my family plays in my life. Q17.
- 18. This activity made me feel happier momentarily. Q18.

## The workshop overall

- 19. The silent periods helped me to concentrate and become engrossed in the task. Q19.
- 20. It had an adequate selection of materials for the activities involved. Q20.
- 21. It was interesting and engaging. Q21.

## Further comments:

Thank you! It is interesting what someone can find out in objects or situations that apparently are very common.

## Appendix K.

Sample Study 2 Session Summary Sheets and Memos

## **Study 2: Session Summary Sheet for Happy Homes Workshop 1/03/16**

The preparation of the workshop was very stressful. I did not give myself enough time for set up and the materials were all mixed up from the previous session. Furthermore, the tea and coffee never arrived which was a bit embarrassing.

### **Actions for future workshop:**

- Allow a full hour for set up
- Outline exactly what you want the other person to do during setup and the workshop
- Separate and organise materials properly
- Go through the layout and procedure with the second individual prior to the workshop
- Remind reception about the tea and coffee on the day
- Have plenty of snacks available as a backup plan
- Arrange these in the centre of the table to make it more inviting

### **The session itself:**

It appeared to run smoothly. The atmosphere felt very pleasant and relaxed. One participant found the silence difficult as they would have liked to talk to others to get some ideas. This may be because they joined in last minute and didn't have time to properly complete the preparation exercises beforehand.

Another thing to think about is do I want to encourage more discussion between participants while they're sharing their stories. Perhaps welcoming comments from other participants before or at the end of each activity might enable this without taking the platform away from the person talking. This was picked up by one participant who wasn't sure if they were allowed to give their input or not.

Perhaps I could add a bit more about why we're using art therapy techniques and how they work so participants feel a bit more relaxed with the openness and freedom of the tasks....

For example, art therapy works by using art making to engage the unconscious which allows our true feelings and emotions to surface and be discovered. In this way, it can lead to new personal insights about yourself, furthering emotional development. Only you will know what your image means so I invite you to think hard about the significance of what you create in this class. You, in a sense, hold the key to your own personal understanding. Purposely I won't be telling you exactly what to create in this class as I want you to allow a personal image to come, one that feels right for you. To aid this process, we will conduct the art making activities in silence but we will have a discussion about what we created at the end.

### **Other notes/thoughts:**

Because people are influenced by the images they surround themselves in their spaces it will be important to listen closely to what people are describing in the image awareness exercise to see how those images and objects might be occurring in their later artworks – refining interview questions to draw attention to this and identify any possible links. Also, noting how participants feel about art, it will be possible to see how this influenced their artwork.

production. Was there a material they considered using but shied away from? Do this bring up negative feelings that may have impacted on what they produced?

The workshop needed to find a balance between being engaging, encouraging reflection but not being too exhausting or timing constraining for those taking part. 6 participants seem appropriate as a maximum number. There is a lot of listening involved and waiting. I didn't want participants to feel restless. Need to emphasise listening and perhaps give some space at the end for other to interject with additional thoughts.



## **Study 2: Session Summary Sheet for Semi-Structured Interview with Participant H5A1 8/03/16**

### **1. Who was involved?**

Researcher and Participant H5A1

### **2. What issues were covered?**

The participant's prominent use of the colour yellow as it signifies positive emotions and activities such as time with family making hot chocolate or time spend in the studio. He describes himself as a forward-thinking person who needs yellow/bits of hope everywhere in his daily life. This exemplified by the presence of his yellow pencil case, yellow pen and sharpener.

The participant's strong art and design background may have made the analysis process more difficult as he was designing his image from an aesthetical point of view instead of "drawing from within". It would be very hard to shut this off over a short period of time.

### **3. Relevance to research question? (What are the barriers or conditions for positive family experiences?)**

Having time and space for personal contemplation sometimes alone and sometimes with family. The fire facilitates this. It gives all family members a focal point while keeping them together.

### **4. What new questions are suggested?**

Is it possible to create a product service system that enables personal alone time as well as positive family experiences? Perhaps for some individuals (including myself) there is a necessity for complete alone time in order to facilitate positive family experiences. How would such as device/system accommodate these two needs?

### **5. What are the implications for the next round of data collection?**

Investigate alone time as a later facilitator of positive family experiences in some instances.

# Appendix L.

Study 2 Sample of Open Coding and Use of Sensitising  
Questions

## Study 2: Sample Opening Coding of Happy Homes Workshop I Transcript 1/3/16

went travelling. It just reminds me of the **time before having children** and then **a vase that my mum has** bought me which is decorated from whit bean and it has memories and things like that.

{Is there anything that you would like to change in your environment?} I really struggled with that. The only thing I could think about was, I couldn't think of anything that I would like to change because that objects that are there I like coz I like them. .em I couldn't think of anything.

15:48 (Debbie) Em I chose the lounge as well because that my favourite place I guess because it had all the bits that we've collected over the years, pictures or ornaments. I guess the key things were **things that people had made**. The kind of **paintings** that my **husband's father** who passed away. He started painting when he was in his 70's and em started framing them up and we've **got two** of those which we really love because it's **a really nice memory of him**. And they were quite sort of beautiful bits. And we don't have many small ornaments around, we've got three small kids and they won't last five minutes, perhaps. We've a few bits and bobs. One of those bits, I starting getting with **one ceramic rabbit**, it's a 1950s company called Silver Back. It's my Grans and it's about the only thing from my grans house but it really reminds me of the **sort of look of her house**. And since then people have sort of bought me these little silver rabbits. I've got four, they're really hard to come by. But they're quiet special because I know when people have bought them its been quite hard to find. They have nice memories too.

17:01 The other bits I guess are years ago I bought **two illustration** by an artist I really liked who has since inspired me to go back and do **some screen printing and some linocut stuff**. I love those two pictures so I thought I could do that and I started doing that again. I like the idea that having something in the house inspires you to sort of being creative. The one thing that is in our house and is quite dominant in our house is, I really don't like it and if I could change it, would **be a mirror that we have above the fireplace**... why anybody would have a mirror because all I ever see as you walk past is your own reflection, that's the least beautiful thing in our house that's the one thing that I would probably take down and put something again that I would want to see everyday up there. So almost like a vacuous space really. Our faces beaming back so that's what I would change.

17:56 (Jane) It's weird really because we have moved a lot in the last few years. I've got two sons who are quite boyish in terms of their own bedroom style. One of things that kind of quite important to me to have a home that felt **peaceful and it was a safe place** for us to come home to, that's calming. And but also feminine side to it that the boys could actually live with. They're 15 now and its funny actually because we've just in a sort of temporary place at the moment I ended up somehow with one son in North Hampton and one that's here. It's not been ideal but Bradley even said to me this morning but look at the way we put our things in the room look at how lovely it looks. And these things aren't necessarily expensive. They're **just things that we've grown to love** and so we have... so three or four pictures or prints that work really well together. They happen to all be neutral in that they've got some black to them and some **monotone grey shades**. One is a ballerina believe it or not but it's just very beautiful and calming to me. I don't do ballet so I don't know what the connection is. But it's how it works with the sofa, the cushions, it's all **very neutral** but I love it... em have I answered all the questions? What stood out for me is I have one massive print and there is some greeny tiny bluey touch to it. But that's... I'm obviously not colourful sort of person on my décor around me. It's almost like I have so have really calming calming colours. A splash of red won't kind of work for me. I don't know what that says about me but it works for the boys aswell. So you might come in and think oh my goodness this is all very

Commented [ED6]: Life narrative, significant relationships **HISTORY CONNECTIONS**

Commented [ED7]: Symbols of heritage – part of something bigger than yourself , life markers **CONNECTIONS**

Commented [ED8]: Signifiers of significant relationships (made artefacts or old belongings) – part of something bigger than yourself **CONNECTIONS**

Commented [ED9]: Symbols of heritage, significant relationships **ROOTS CONNECTIONS**

Commented [ED10]: Symbols of heritage – part of something bigger than yourself **ROOTS**

Commented [ED11]: Signifiers of significant relationships **CONNECTIONS**

Commented [ED12]: Aspirational signifiers **ASPIRATIONS**

Commented [SS13]: Interfering =with the hearth of the home?

Commented [ED14]: Aspiration signifiers – trying to create a sense of peace and calm in the home **ASPIRATIONS**

Commented [ED15]: Aspirational signifiers **ASPIRATIONS**

## Study 2: Initial Resulting Themes from Opening Coding of Happy Homes Workshop I Transcript 1/3/16

### **Reflection of values – ways of creating the right platform for a happy home environment**

Aspirational signifiers – (paintings, beautiful imagery – you want it in your home to reflect your ideals, your ideal identity, you want it to be part of you, they may even motivate a particular related action from the individual) ASPIRATIONS

Ways of making your life more meaningful

Things that you aspire to be...

### **Strengthens the meaning in one's life by amplifying and reminding individuals of experiences of hedonic and eudemonic joy:**

Signifiers of **significant relationships** in one's life (artefacts made by significant others or gifts from them, family photos, photos with friends) (connection to others – part of something bigger than yourself – meaning) CONNECTIONS (evidence of significant relationships with others or your life with others)

Symbols of **heritage** (artefacts made by or belongings of relatives – to feel part of something bigger than yourself – meaning) ROOTS (evidence of family heritage or life before you)

Signifiers of positive experiences (life achievements, milestones in life, obstacles overcome – part of a **narrative** – part of something bigger than yourself – meaning) HISTORY (significant events of your life)

### **CONNECTIONS (evidence of significant relationships with others, your life with others part of something bigger than yourself)**

Gifts from others

Photos of loved ones

### **HISTORY (significant events of your life – highlighting experiences of hedonic/eudaimonic happiness)**

Photos signifying happy memories

Objects signifying significant life events

### **ROOTS (evidence of family heritage or life before you – part of something bigger than yourself)**

Belongings of relatives

Objects that signify a relative

### **ASPIRATIONS (Ways of making your life more meaningful – eudaimonic happiness – going after what you aspire to be)**

Aesthetically pleasing objects – integrating them as part of your identity

Aesthetically pleasing imagery – integrating them as part of your identity

Motivational objects

Motivational imagery

{all purposely on display}

## Study 2: Sample Opening Coding of Semi-Structured Interview Transcript with Participant A3 4/2/16

### Emerging codes:

Togetherhness

Talking

Relaxing

Space that enhances/facilitates particular activity (comfortable communal space, presence of food and drink – aids in the creation of the right atmosphere)

'Space to sit around and talk'

Sense of control

Synchronised rest period

Small/intimate/private

Shared history

Routine/consistency

Playing

Awareness of each other

Comfortable/ stress free

Time doesn't matter

Inclusive activities

Supported & protected

Emotional support

### Explain to me what you're doing in this image again...

Ye it's home isn't it? My parent's home. So we have the garden. It's not so much like the actual garden. You know it's a garden space, green and tree like without any walls. And then the sky, this area on the right is the patio bit which there is the garden. It does have walls yes. In real life there are walls so that's why its funny to look at it like that. I don't think I did that deliberately... well I don't think so consciously.

Commented [ED1]: He depicted the most memorable aspects

This is supposed to be a flower bed although it looks like fire but I think that was just the time to cut things out. And this is our family in... well normally we sit outside and drink either wine or tea or something and just to simplify that it's just the faces if family members in the wine.

Commented [ED2]: I didn't make this connection at all. He saw this straight away in the image and had to comment on it.

Commented [ED3]: Again food and drink playing a major role

### So who are you with on the patio?

I wo brothers, parents, of the will be me I guess yes.

### And is that your entire family or is it just usually you who sits in the patio?

No that's the entire family ye.

### So describe what you're feeling in this experience?

I think warm, relaxed possibly, stress free I think. That's the important aspect. Em... comfortable. I would definitely emphasis the stress free.

### And why do you think that is? What do you think is aiding that experience?

Because I think here in this small world I'm the child with no responsibilities. I'm not at work. I know I'm on holiday. I'm there. I'm just sat living rather than just having to deal with the outside.

Does it feel almost like time stands still?

03:18 ye a bit like that. The time doesn't matter.

So what does it mean to be relaxed and stress free in this particular environment? Do you think it feels different from other times when you feel relaxed and stress free in other environments? Is there something that makes this environment particularly suitable for that?

You can go on holiday and not have to worry about things like this but here I don't have to worry about anything. I don't have to worry about buying food or you know things are there, there're already in the house. I don't have to do anything.

Commented [ED4]: Different dynamic going on

And is there a particular aspect of this experience that you are enjoying more than others?

I think that I enjoy in a way being closed off from other people outside of people that I know very well and that I don't, you know you can sit in silence with them. You don't have to worry about the people. Whereas outside this environment there's issues of interaction, not that obviously it's enjoyable! But sometimes you just...

Commented [ED5]: Comfortableness, again no effort

It's not the same?

Exactly.

Why is not the same?

I guess because they've known me all my life. So there's a lot of history there. There's not so much that needs to be said. You're not really trying I suppose.

So how do you think that the space itself is adding to this nice, warm, comfortable experience? Are there particular objects, shapes, colours, tastes or smells that are facilitating this with your family?

I think the greenness is important. Because where they live is in valleys. From the garden you seen just green hills and it does have an impact because even when you get into that area you feel different just looking at the... it feels more open and the big sky and stuff like that. Em smells... I think it's probably more colour than anything else. There are... I mean it does smell like a garden and wine certainly has a distinctive smell and the colours would be foremost and then.

Are there chairs in the patio?

Yes and a table but I'm not sure how many chairs.

Enough for everybody to sit?

I don't think there are. I think normally there's sort of three people there at once rather than everyone all standing or... ye the chairs are comfortable. They're not... they're very standard chairs. Almost like these with a kind of cushion. Not reclining or anything like that.



## Study 2: Sample of Sensitising Questions Usage 1/3/16

| <b>What supports positive family experiences?</b> | <b>How?</b>                                      | <b>Why?</b>  |
|---|--|--|
| Shared history                                    | Encourage more time with each other              | Family members are socially comfortable around each other                                  |
| Familiar environments                             | Have designated spaces for family time           | Builds consistency and aids in everyone feeling comfortable                                |
| Having common interests                           | Talking to each other to find out                | Gives family members something to talk about and pursue together                           |
| Reminders of previous happy memories              | Photographs, talking, organising similar events  | Encourages family members to recreate them   |
| Celebrations                                      | They become ritualistic family events            | Offers family members and excuse to take time out and enjoy luxury food and drink together |
| Synchronising rest periods                        | Having routines in place                         | Each family member will need to rest eventually  |
| Essential tasks are complete                      | Synchronising rest periods                       | Time can be considered leisurely or not at all   |
| Comfortable communal spaces                       | Create a space that accommodates multiple people | Allows family members to sit near each other (close proximity)                             |
| Similarities in individuals                       | Biologically related                             | Family members are more likely to understand each other (eg. similar sense of humour)      |
| Offering emotional support                        | Talking & communicating                          | Allows family members to feel that they "are there for each other"                         |
| Having roles                                      | Using your strengths within that system          | Family members feel that they are part of the family (system)                              |
| Working as a team                                 | Completing a task together                       | Family members feel supported and are part of something                                    |
| Acceptance of each other                          | Communicate more to understand each other better | Family members feel that they are be themselves around each other                          |

# Appendix M.

Samples of Study 2 Annotated and Visual Theoretical  
Memoing



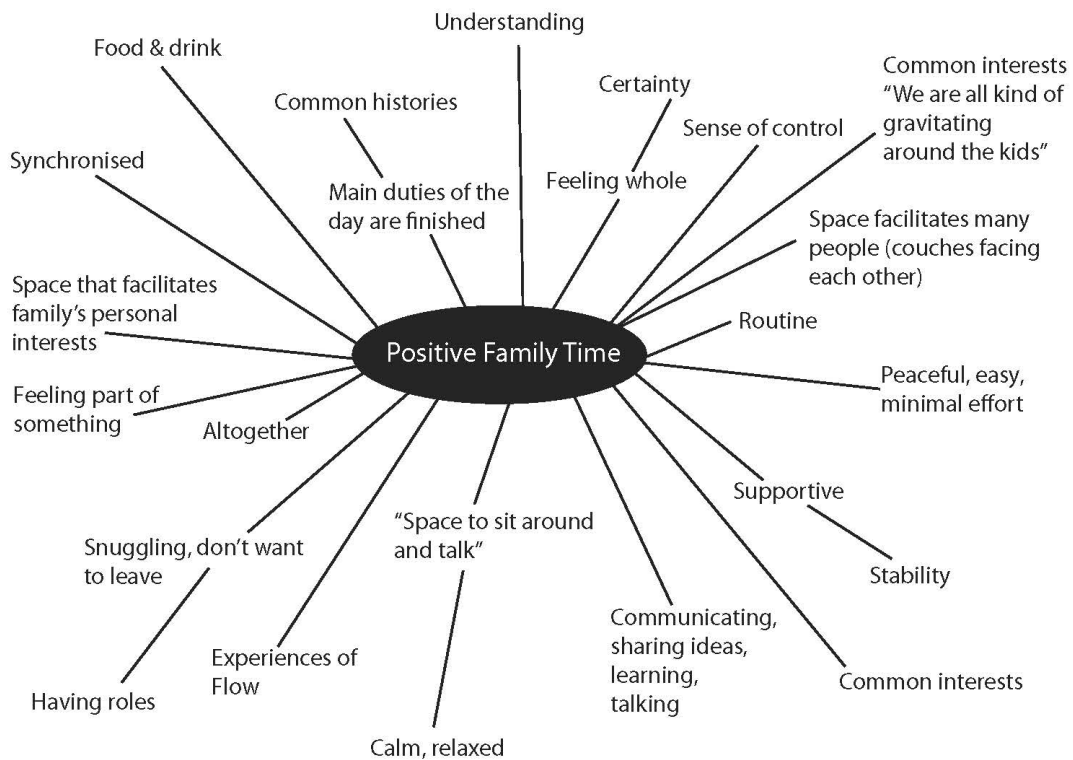
**Initial Resulting Themes from Workshop:**

Emotional Support  
 Celebration  
 Feeling Whole  
 Relaxation

**Themes break down into:**

Actions – celebrating, resting, talking, being productive  
 Emotions – enthusiastic, excited, calm, supported, feeling whole

Further concepts emerging after semi-structured interviews:



**Preexisting Family qualities**

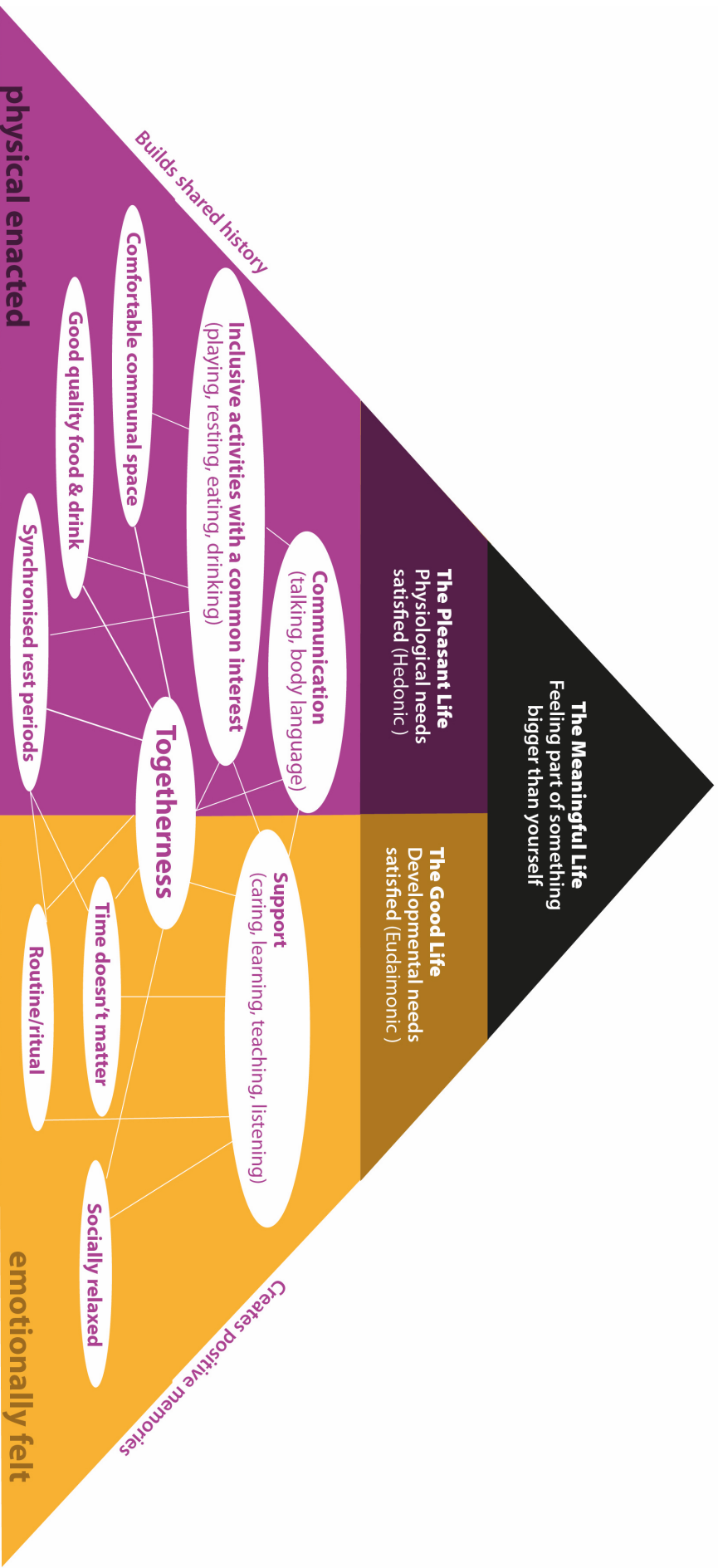
Shared history  
 Unique knowledge of each other

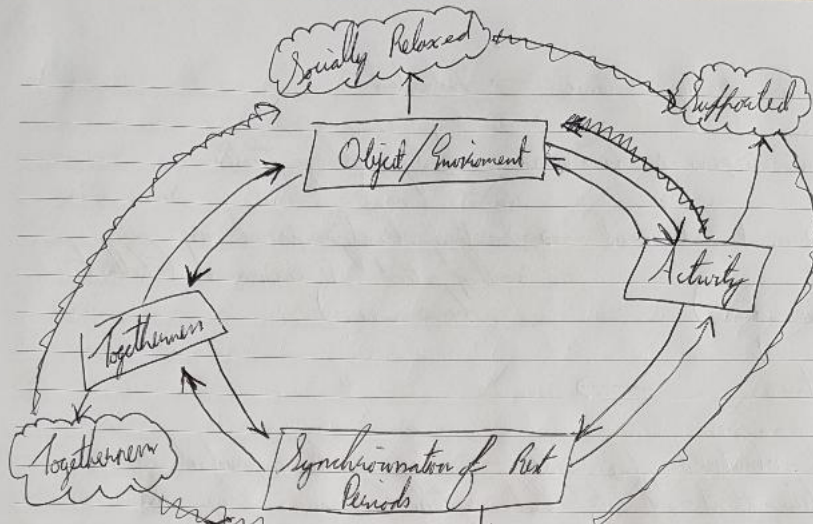
Family therefore has the ability to →

Be caring  
 Be supportive  
 Provide learning  
 Provide happy experiences



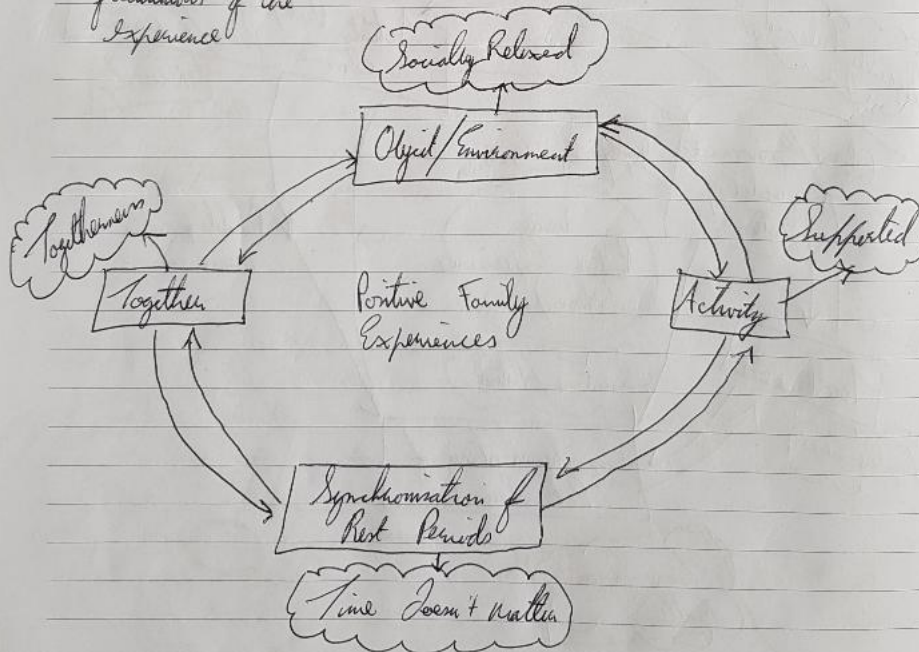
experiences of "flow"?





Positive interactions feed back to the other facilitator of the experience

Time doesn't matter



## Appendix N.

Sample Extract of Study 2 Semi-Structured Interview  
Transcription with Revised Codes and Themes

**Participant H2A1, 28/3/16**

| Questions and Responses   | Codes  | Themes                                     |
|---|--|--|
| <p><b>What does it mean to be happy and relaxed in this situation?</b></p> <p>I suppose happy that we're altogether. That's mostly what makes me happy. Happy I'm not at work because it was Christmas. I love Christmas because your kind of get a long stretch of time off and everybody else is off as well. So you're not coming back to a great long list of things to do because everybody else is relaxing which is great. So, I think Christmas is probably one of the most relaxing times.</p> | <p>Together<br/>Time doesn't matter<br/>Supported<br/>Synchronised rest period</p> | <p>Emotional felt<br/>Physical enacted</p> |
| <p><b>Is there a particular aspect of that experience that you're enjoying the most?</b></p> <p>I think the contact. Definitely, the physical contact. When you're lying on one another and if ever I'm allowed to... in fact my son strokes my hair as well... I think that's quite nice. I like that.</p>   | <p>Together<br/>Together<br/>Supported</p>   | <p>Emotional felt<br/>Physical enacted</p> |
| <p><b>How are other family members enabling or enhancing the experience?</b></p> <p>Well I think the enhancing is just the physically being there and being together. The physical contact again, the stroking heads, the snuggling up is nice. I suppose just by engaging in the activity whether you do it or not. You're kind of doing it for the people.</p>  | <p>Supported<br/>Together<br/>Together</p>   | <p>Emotional felt<br/>Physical enacted</p> |

**What's happening in this image?**

So this is specifically last Christmas. I think we probably have two weeks when all of us were at home or people were doing various things and we talked about watching the movie Inside Out for quite a long time. I don't know when it came out. It was quite a while ago wasn't it. I think we just did on the other on demand thing and we knew it was probably going to on there at Christmas and we said we've got to watch this over Christmas at some point and it was the only film that we all would have probably sat down and watched together. I'm not sure what else we'd watch together. Harry Potter is something like that that we might all watch. But it's really rare to find a film that we all want to watch. And my son was probably there, not under sufferance but I think he knew we wanted to so it as a group and he probably wanted to watch it as well. So we're in the living room sometime over Christmas in the afternoon. I've done clouds outside but I'm not sure it was dingy outside. But I had the feeling that it was in that we're all cosy inside watching Inside Out which was brilliant, I absolutely love it... And with our drinks and nibbles which would also make us happy. And I was thinking, I can't remember, I wasn't sure of that's where we were. Me and my son were on one sofa, my husband and daughter were on the other sofa. Don't know who was lying on who but I remember there was lots of lying around and I do quite often my son will come down and I'm in that position and he'll come and lie on me and I like when he does. And he sometimes lets me stroke his hair for a very small moment but I may well of been lying on him I'm not sure. None of us fell asleep which is always a good thing because sometimes that happens when you're watching films in the middle of the afternoon. So we were probably there for an hour and half, whatever it was. I can't remember what we did after.

Synchronised  
rest period  
Time doesn't  
matter  
Communication  
Support  
Inclusive  
activity of  
common  
interest  
Together  
Comfortable  
communal  
space  
Food/drink  
Socially relaxed  
Together

Emotional  
felt  
Physical  
enacted

## Appendix O.

Sample of Questions from Anonymised Questionnaire Issued on  
Facebook and Twitter During Phase 3, Part I

### Phase 3, Part I: Anonymised Questionnaire Questions 25/8/16

Happy Home Experiences

1. Describe a positive family moment with your family in the home.

– Where were you?

– Who were you with?

– What were you doing?

– What time of day was it?

– Were there any physical objects in the environment, such as furniture or food, that enhanced or contributed to the moment?

2. Was this experience planned, part of your daily/weekly routine or spontaneous?

Planned

Spontaneous

Routine

3. Explain why it was planned, spontaneous or routine.



## Appendix P.

Sample of Responses and Template Analysis of Anonymised  
Questionnaire Employed During Phase 3, Part I

**Phase 3, Part I: Anonymised Questionnaire Responses and Template Analysis 25/8/16**

| Questions   | Reponses  | Theme   | A priori codes   | Order of Occurrence   |
|---|---|---|--|---|
| <p>Q1. Describe a positive family moment with your family in the home.</p>                | <p>We were in the living room. We were with my partner, his sister, two cousins, two friends. It was in the evening between 11pm and 5am in the morning. We had a television, a large sofa bed on which all of us could sit or lay down, some other chairs, a space to dance. One of the guys had his computer, amazon drive to check some movies and some good speakers. I had some corn to make some popcorn. We were sorted. Some mobile cameras to film and take snap chat.</p> | <p>Spontaneous positive family experience</p> | <p>Passive physical binder<br/>Interactive Physical binder<br/>Together<br/>Synchronised rest periods<br/>Lower emotional binder<br/>Higher emotional binder</p> | <ol style="list-style-type: none"> <li>1. Physical binder (the living room and garden provided comfortable communal spaces for group interaction)</li> <li>2. Together (subsequently, they ended up there together)</li> <li>3. Synchronised rest periods (they spent free time with each other)</li> <li>4. Emotional binders (i.e. sitting, dancing, listening to music)</li> </ol> |
| <p>Q2. Was this experience planned, part of your daily/weekly routine or spontaneous?</p> | <p>Spontaneous</p>  |   |  |   |

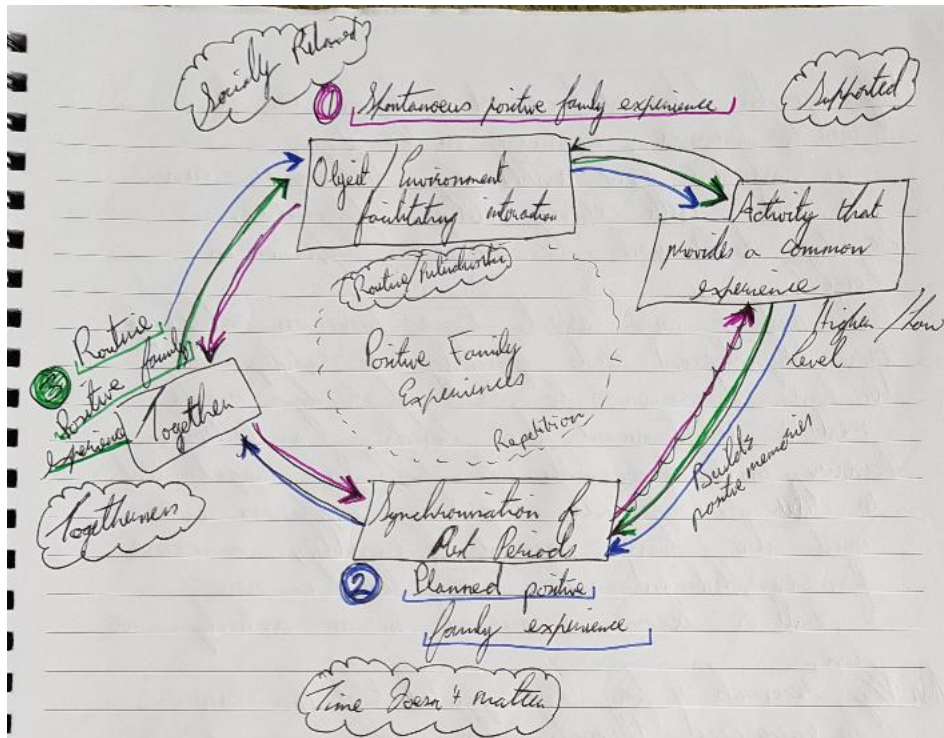
|  |   |  |  |  |
|--|---|--|--|--|
| <p>Q3. Explain why it was planned, spontaneous or routine.</p> | <p>Well, we knew that family would sleep at home on that particular night but we did not really plan how many there would be and what we would do. We had a party - well three different events on a same day - the day before and we were recovering. We stayed in the garden for most of the day with a barbecue and in the evening. We were keen to watch Welcome in America on TV. We did that and then we put some music on and started just messing about. It was very nice. I felt very good on that day. It was just spontaneous and I was not feeling overwhelmed.</p> |  |  |  |
|--|---|--|--|--|

|   |  |   |  |  |
|---|--|---|--|--|
| <p>Q1. Describe a positive family moment with your family in the home.</p>                | <p>Christmas day dinner at 3pm with my mum, dad, sister, and husband. There are always certain items of tableware that are only used for this to make the event more special - I always associate Christmas dinner with the white tablecloth with embroidered Santas. We seem to have had this ever since I was a child.</p> | <p>Planned positive family experience</p> | <p>Passive physical binder<br/>Interactive Physical binder<br/>Together<br/>Synchronised rest periods<br/>Lower emotional binder<br/>Higher emotional binder</p> | <ol style="list-style-type: none"> <li>1. Synchronised rest periods (i.e. Christmas dinner is planned for 3pm)</li> <li>2. Together (i.e. this arrangement causes family members to come together)</li> <li>3. Physical binder (tableware and food facilitates experience)</li> <li>4. Emotional binders (eating and celebrating occurs from the presence of food and meaningful decorations)</li> </ol> |
| <p>Q2. Was this experience planned, part of your daily/weekly routine or spontaneous?</p> | <p>Planned</p>   |   |  |  |
| <p>Q3. Explain why it was planned, spontaneous or routine.</p>                            | <p>It's part of family tradition.</p>  |   |  |  |

|   |  |   |  |  |
|---|--|---|--|--|
| <p>Q1. Describe a positive family moment with your family in the home.</p>                | <p>Long evening meals with family - good food, wine and conversation. Always in the dining room with music playing and candles on.</p> |   |  |  |
| <p>Q2. Was this experience planned, part of your daily/weekly routine or spontaneous?</p> | <p>Routine</p>   | <p>Routine positive family experience</p> | <p>Passive physical binder<br/>Interactive Physical binder<br/>Together Synchronised rest periods<br/>Lower emotional binder<br/>Higher emotional binder</p> | <ol style="list-style-type: none"> <li>1. Together (i.e. family naturally comes together for a meal every evening without prompting)</li> <li>2. Physical binder (i.e. meal, music, candles—sets the scene for interaction)</li> <li>3. Emotional binders (i.e. eating, talking ensues from this preparation)</li> <li>4. Synchronised rest periods (this comfortable situation encourages the family to interact for a prolonged period)</li> </ol> |
| <p>Q3. Explain why it was planned, spontaneous or routine.</p>                            | <p>It's a way of spending quality time together every night.</p>   |   |  |  |

## Appendix Q.

Samples of Reflective Hand Scribed Memos Used to Develop Design  
Tools During Phase 3, Part I



3 areas points into positive family Experiences

- Planned
  - Already present in routine (together naturally)
  - Introducing objects/environment that encourage togetherness
- Find out routine or look at general routine / break times such dinner, lunch breakfast

I'm providing the system for them to create a service or product - service system for

Pleasure Activities

Engagement Activities

Meaning Activities

|                                       |                   |                              |
|---------------------------------------|-------------------|------------------------------|
| Cooking for others                    | Conversation      | Cooking, cleaning for others |
| Laughing with others                  | Playing games     | Making things for others     |
| Others cleaning for each other        | Craft making      | Being rewarded, rewarding    |
| Games - amusement                     | Sewing, knitting  | Connecting with other        |
| Kindness - through cleaning           | Games room        | Leaving each other           |
| No longer just satisfying basic needs | Sewing room       | Thank you notes,             |
| Relaxation, joy                       | Craft room        | Compliments in public        |
| Life                                  | Organizing events | Prizes                       |
|                                       | Kindness          | Awards/prize                 |
|                                       | Leadership        | Friendly competitions        |
|                                       | Creativity        |                              |

Pleasure Objects

Engagement Objects  
Pleasure Environment

Meaning Objects/  
Environments

|                          |  |                            |
|--------------------------|--|----------------------------|
| Food                     | Room for sewing  | Materials                  |
| Gifts                    | Art & Crafts   | People being present       |
| Handmade                 | Games room   | Gratitude board            |
| crafts                   | lots of activity   | Compliments board          |
| Drink                    | board rooms  | Thank you notes            |
| Soft comfortable seating | Noticeboard to arrange activities, different events, hold meetings | Physical prizes            |
| Communal faces           | Materials  | Gifts                      |
|                          | Cooking utensils   | Photos of enjoyable events |

Because we start with basic needs there will be natural overlaps

Positive Relationship Messages Evoked by Design

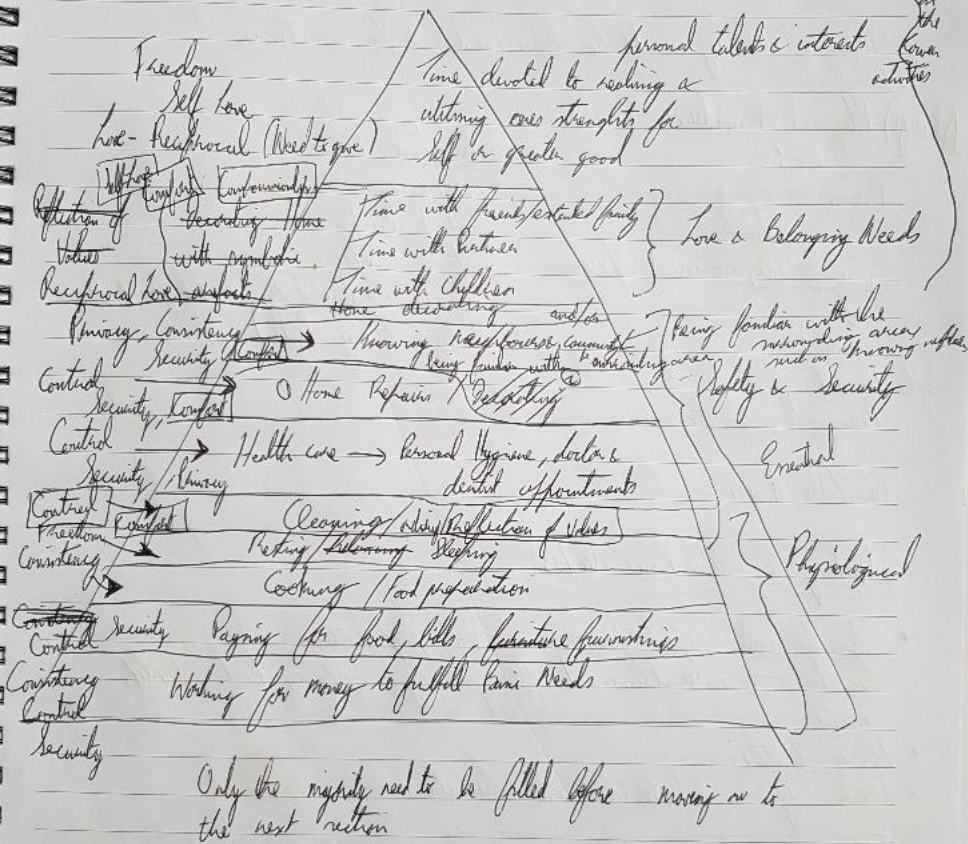
Images of comfortable Command  
be part of a community  
Security - some time  
Money  
Chairs with names on them

If you've done the initial exercise correctly then the pleasure activities will naturally lead us back to the engagement activities



We use time trying to save money, use of up time trying to make <sup>save</sup> money  
 support a basic need = to free up time → then we use up money trying to save time  
 Essential & non-essential activities

These all frustrated in the house activities

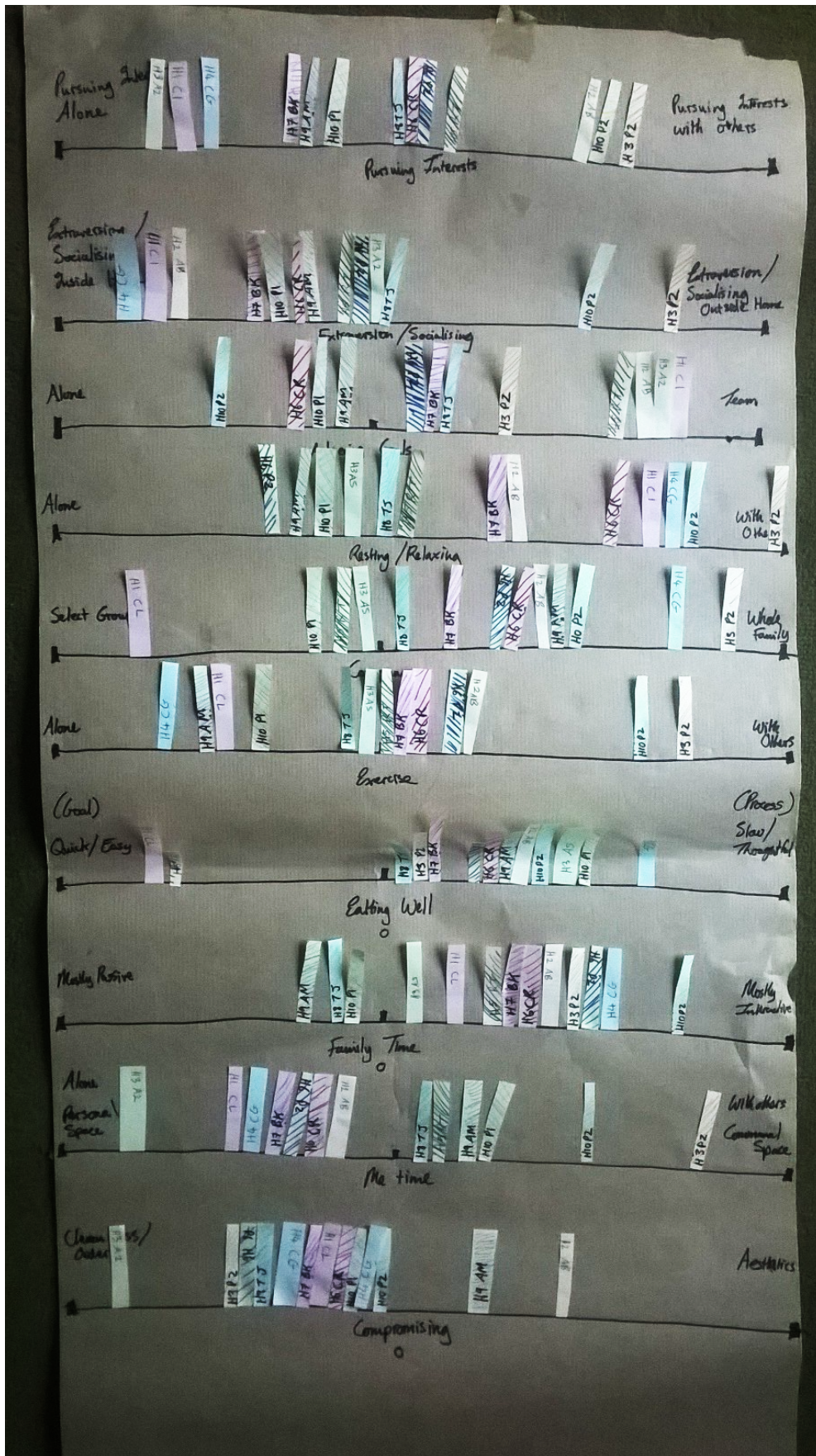


Freedom, Self love, Reciprocal Love → Self Actualization  
 Self love, Companionship, Comfort, Reciprocal Love → Love & Belonging Needs  
 Privacy, Consistency, security, comfort → Safety & Security  
 Control, security, comfort → Physiological  
 Control, comfort, reflection of values  
 Freedom, Consistency, control (sleeping, eating)  
 Consistency, control  
 Security, Control



## Appendix R.

Visual of Rating Scales for Behavioural Variables During Persona  
Development in Phase 3, Part I



## Appendix S.

Memo Sample Employed to Develop New Variables During Persona  
Development in Phase 3, Part I



#4 CG Able to achieve goals & interests while interacting  
spending time with family. Seems to really benefit  
the household.

### Work & family life integration

#5 RT Eat without children during the week to have  
some adult space - job too stressful  
(Energetic Home) Want to do more things as a family but need  
to wait for the kids to get better.

Wind down evening time with partner  
Teamwork is important with two children. Homework feels like an  
impediment on relaxation time -> low priority

#6 CR Brown up time after child goes to bed again  
(Home of work & leisure) Homework feels like an impediment on family time

#6 P2 Pursuing interests doesn't happen much but he would like  
it to happen more in the future.  
Life is very orientated ~~out~~ around child  
(The means justify the ends)

#7 BK Life is very orientated around child  
Eat separately to young child

\* Extreme of minor issues that  
occurred in sample

|        |                                |   |
|--------|--------------------------------|---|
| (Low)  | Free Time                      | Low-Moderate time (Partner)               |
| (High) | Child care<br>responsibility   | Low-Moderate (Personal space)             |
| (Low)  | Time for<br>Personal Interests | Low Satisfaction with<br>Home environment |
| (High) | Housework responsibility       | Low Ability to Relax                      |

## Appendix T.

Memo Sample Used to Construct Motivations and Pain Points During  
Persona Development in Phase 3, Part I

## Journal 1 CH

- Adequate sleep → Got woken up by the children to use the toilet at the weekend
- They go & play quietly down stairs so the parents can have more sleep
- [ Balance between satisfying basic needs & adequate sleep ]  
Harmony
- Balance between creating personal space & satisfying basic needs
- That "Harmony" makes a really nice start of the day if she times it right
- Children play while mother gets makeup ready
- Lunch had to be quick → daughter getting hungry & bucking off
- Children played really nicely because they had a lot of outside time → Allowed the parents to rest, sit & eat
- The fact that children can play & entertain themselves creates a really nice harmony for the adults to relax while enjoying the children's company
- Mother taught her how to make mince pie so the family could enjoy it → Allowed her to do something nice for the family
- They don't eat with the kids to reduce stress  
Wanted to eat more with them but it's tricky
- Also in an attempt to create comfort & they talk a lot
- Running is both exercise & personal time → Also achieving a goal because she has to force herself to go
- Lying was a real treat because they had such a full day
- Putting the kids to bed is very functional
- Food team work, compromising & time with partners
- Easier to keep the kids happy (harmony) if doing stuff
- Really good when both parents are there but can become really

## Appendix U.

Main Studies' Workshop Sample Feedback Form

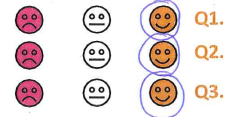


## Feedback (Page 1 of 2)



### Presentation

1. The information was presented in a way that was easily understandable.
2. The presenter communicated the information at the right level.
3. The presentation provided the right amount of background information.



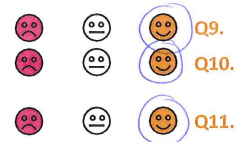
### Activity 1 – Sharing of positive home experiences with others, and introduction of persona

4. The task had adequate time to be completed.
5. The instructions for the task were clearly presented.
6. This activity helped create a better understanding of how positive home experiences are made.
7. The persona provided believable and inspiring user information for later design concepts.



### Activity 2 – Creating the Physical Binder(s): Designing for Happy Homes

9. The task had adequate time to be completed.
10. The instructions for the task were clearly presented.
11. The cards of essential and nonessential home activities were appropriate for brainstorming design outcomes that could facilitate these.



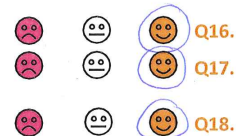
### Activity 3 – Exploring Emotional Binders: Identifying Interactions for Home Happiness

12. The task had adequate time to be completed.
13. The instructions for the task were clearly presented.
14. The visuals of emotional binders for pleasure, engagement and meaning were useful for understanding different home happiness activities.
15. The visuals of emotional binders for pleasure, engagement and meaning helped locate happiness activities that could be supported by design in the home.



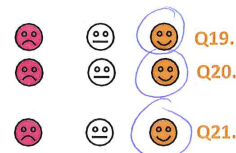
### Activity 4 – Offerings Map

16. The task had adequate time to be completed.
17. The instructions for the task were clearly presented.
18. The offerings map was appropriate for identifying unique selling points of developing design concepts.



### Activity 5 – Stakeholders Map

19. The task had adequate time to be completed.
20. The instructions for the task were clearly presented.
21. The stakeholder map was useful for locating significant and potential individuals needed to orchestrate the design solution.





## Feedback (Page 2 of 2)



### Activity 6 – User Journey Map

22. The task had adequate time to be completed.



23. The instructions for the task were clearly presented.



24. The user journey map was suitable for illustrating speculative user interactions with design concepts, such as real world impact and feasibility.



25. The service design tools (Activities 4-6) allowed for the further development of design concepts created using the design for home happiness tools (Activities 2-3).



26. This workshop facilitated an effective design process for designing for happier homes.



### Comments:

I thoroughly enjoyed the workshop today. It has certainly made me think about how I can facilitate some activities in my home to make it a happier place! The work described was very interesting, extremely well presented and very visually appealing. It has made me want to follow your work and I wish you the best of luck in the future.

## Appendix V.

Sample of Sensitising Questions and Thematic Analysis During Phase  
3, Part 2

### **Phase 3, Part 2: Sensitising Questions and Responses Coded by their Representative Theme Listed Further Below 24/2/17**

#### ***How does the home happiness tools and framework facilitate the creation of designs for happier homes?***

The design is understood/presented as the physical binder, within a spontaneous positive family experience, that initiates random pleasant home moments. The design proposition does this by enticing the family to engage with it through the facilitation of essential home activities—those of which unhappy homes tend to focus on when resources, such as time and money are low, as they are essential to survival and therefore cannot be readily neglected, as is the case with nonessential home activities. Consequently, by offering a means of supporting essential home activities with additional benefits, such as nonessential home activities, the household is encouraged to come together and synchronise their rest periods from the other tasks to engage with the design concept. The embedded nonessential activities make subsequent interactions more enjoyable than essential home activities normally completed at home without design intervention, convincing the family to make this interaction routine. Accordingly, this process encourages the development of designs for long-term home happiness by forcing designers to consider how propositions could facilitate both essential and nonessential home activities simultaneously during early developmental stages. In effect, this moves the design focus from practical and rational benefits, such as efficient products for cooking and cleaning, to enabling activities for long-term home happiness from a happiness perspective. It breaks the complexities of long-term happiness down into manageable chunks that are still broad enough to be personalised to each individual and family.

#### ***What are the benefits of using these tools over others? (thinking back to codesign tools and 'Design for happiness' framework)***

These can be used to create more generalised responses to improve home happiness in multiple homes and communities.

#### ***How do the home happiness design tools complement the use of service design methods?***

The tools and workshop process aim to unpack the complexity of meaningful experiences that lead to long-term happiness in order to enable designers to embed them into design propositions

#### **Possible themes related to questions:**

**Theory facilitates 'designing for home happiness'**

Complex interactions are identified (i.e. positive family experiences that support long-term happiness) are broken down into components that are transferable to design—designers must consider how their proposition will support spontaneous family experiences, such as how will it act as the physical binder that brings people together, convinces them to spend a prolonged period together and interact in a positive way that supports both physiological and psychological needs (in an already happy home could get away with only supporting psychological or physical)

### **Home happiness tools support 'designing for home happiness' in unhappy homes**

Designers' are encouraged to consider *both* essential and nonessential home activities, made accessible through use of the card deck, speeding up design and creation process. Breaks down components of long-term happiness into activities using emotional binder example sheets, allowing these to be linked and/or embedded into emerging design propositions to measure and develop how they may or may not support happiness.

### **Benefits of using home happiness design tools over other design methods**

Specific to the development of home (long-term) happiness designs.

Are generalised and can be applied to multiple contexts, supporting the happiness of various people and households simultaneously

Take both all aspects of basic and psychological needs into account—purely supporting basic or psychological needs through design will not necessarily be enough to facilitate long-term happiness in certain circumstances. Ideally, designs for home happiness should support experiences of pleasure, engagement and meaning simultaneously to enact the greatest benefit on potential users.

### **Benefits of using home happiness design tools generally**

Encourages designers to think of the psychological implications of their designs as opposed to their practical impacts and how these could be used/developed to support happier and more sustainable lifestyles

Enables designers to conceptualised designs that contribute to the (long-term) happiness of the home as a system/household/part of the community by taking a systemic approach (Service Design Approaches)—in this manner supports the long-term happiness of the household and possible community as opposed to specific individuals

## Appendix W.

Sample Extract of Main Studies' Template Analysis

| Main Study No. | Reponses  | THEME: Design Type/Physical Binder | A priori codes   | How the design/physical binder contributes to home happiness (reflective memo)   |
|----------------|---|------------------------------------|--|--|
| I              | <p>“Our idea is looking at trying to engage families with their local community but not the wider community. Within their postcode area...because this family does not know anyone... It’s kind of a social innovation. You’re being provided with information and ideas for what you could do as a family but it’s more of facilitator rather than a service. So information could be sent via schools or information to take home. There would be a website resource and obviously through word of mouth but the main idea is the get the family to create something, whether its cookies or cakes or some kind of art to take round to their neighbours to either give as a gift or to sell to them to make money for the local community or whatever charity they might choose to try and facilitate a conversation between the family and their local group of homes. So they’re getting exercise because they’re getting out. They’re interacting together because they’re creating something together. And they’re also interacting with the local people and they might be able to also make connections with those local people that lead onto childcare or engaging with older people so they’re then no so lonely... It’s a planned activity but then it becomes routine... there could be an online forum where people discuss their ideas and chat about their experiences. You get a resource pack that you can download or an app to go through ideas... Maybe community leaders would take this on and then make it more of a wide spread thing and they could create little events that might happen every three to six months. It leads to happiness through people’s sense of achievement and building up of</p> | Social Innovation                  | <p>Emotional binder(s) for pleasure (basic needs)</p> <p>Emotional binder(s) for engagement (psychological needs)</p> <p>Emotional binder(s) for meaning (psychological needs)</p> | <p>This design intervention supports families who are willing and wanting to engage more in their local community but lack ideas and the know-how of how to proceed in this. It facilitates creative ventures, getting to know the locality, family time, acts of kindness and development and/or utilisation of one’s skills by supporting activities such as making things, offering these results to the neighbours. Social connections can be constructed from these initial interactions, which can then grow to be more concrete in the future and self-sustaining through repeated interactions and events set up by community leaders.</p> |

|          |   |                               |  |  |
|----------|---|-------------------------------|--|--|
| <p>2</p> | <p>“A built into the house system where tasks can be fed in by the parents that needs to be done. The whole family goes about one of those tasks. It could be upturning all the furniture in the living room. Cleaning away all the dust, rearranging the furniture so that the cushions get fluffed up and the chairs get put back in the right position. You feedback when you’re finished a task by touching a screen or we had a bobpet which was a physical manifestation of this thing and it could be played with the local community. There would be interactive gatherings where people share their tips about what worked for them and for others. There would be Ireland’s cleanest family, Ireland’s greatest children...” (Participant A5)</p> <p>“You get a deck of cards with different chores that are seasonal, age appropriate...It’s about slowing down and measuring the enjoyment as you’re doing it. So when the kids get out on their own they know how to iron... could also feed in the joke of the day. Houses could be connected together in a virtual space, which forces you to get to know your neighbour and you could have competition between households or streets or neighbourhoods. It should be given for free or as an update on your Nest or Alexa. It could be linked to the school curriculum. You could add homework to one of the tasks and Joe Duffy [Irish radio personality] could promote it... It alters your routine so it randomises tasks and brings excitement back to boring chores and forces you to move too, so encourages exercise...the Gigglo-meter, bringing joy to household chores.” (Participant A1)</p> | <p>Product-service System</p> | <p>Emotional binder(s) for pleasure (basic needs)</p> <p>Emotional binder(s) for engagement (psychological needs)</p> <p>Emotional binder(s) for meaning (psychological needs)</p> | <p>It supports the completion of basic needs activities (i.e. cleaning, exercise, knowing the area) and actions for psychological needs (i.e. time with family and friends, using strengths for a greater cause) concurrently.</p> <p>It holds potential for increasing social engagement by being used as a mediating tool for communication between neighbours and the local community through competition based activities and meet-up events to swap related knowledge.</p> <p>It facilitates the happiness of the parents and children simultaneously by transforming necessary tasks into enjoyable learning experiences for the children and supports their completion for the adults. This product-service-system can also be customised to each family and/or individual’s needs and lifestyle.</p> |
|----------|---|-------------------------------|--|--|

## Appendix X.

Sample of Ethical Clearance Checklist, Consent Forms and Study  
Information Sheets



## Ethical Clearance Form

**Ethics Approvals (Human Participants) Sub-Committee**



### Ethical Clearance Checklist

|   |                |
|---|----------------|
| Has the Investigator read the 'Guidance for completion of Ethical Clearance Checklist' before starting this form? | Choose an item |
|---|----------------|

#### Project Details

1. Project Title: Click here to enter text

#### Applicant(s) Details

|   |   |
|---|---|
| 2. Name of Applicant 1:<br>Click here to enter text                             | 10. Name of Applicant 2:<br>Click here to enter text        |
| 3. Status: Choose an item   | 11. Status: Choose an item                                  |
| 4. School/Department:<br>Click here to enter text.                              | 12. School/Department:<br>Click here to enter text.         |
| 5. Programme (if applicable):<br>Click here to enter text.                      | 13. Programme (if applicable):<br>Click here to enter text. |
| 6. Email address:<br>Click here to enter text.                                  | 14. Email address:<br>Click here to enter text.             |
| 7a. Contact address:<br>Click here to enter text.                               | 15a. Contact address:<br>Click here to enter text.          |
| 7b. Telephone number:<br>Click here to enter text.                              | 15b. Telephone number:<br>Click here to enter text.         |
| 8. Supervisor:<br>Choose an item  | 16. Supervisor:<br>Choose an item                           |
| 9. Responsible Investigator: Choose an item                                     | 17. Responsible Investigator: Choose an item                |
| List all other investigators (name/email address):<br>Click here to enter text. |   |

#### Participants

##### Positions of Authority

|  |                |
|--|----------------|
| 18. Are researchers in a position of direct authority with regard to participants (e.g. academic staff using student participants, sports coaches using his/her athletes in training)? | Choose an item |
|--|----------------|

**Vulnerable groups**

|   |                |
|---|----------------|
| 19. Will participants be knowingly recruited from one or more of the following vulnerable groups?                 |                |
| Children under 18 years of age  | Choose an item |
| Persons incapable of making an informed decision for themselves   | Choose an item |
| Pregnant women  | Choose an item |
| Prisoners/Detained persons  | Choose an item |
| Other vulnerable group<br>Please specify:<br>Click here to enter text   | Choose an item |
| <b>If you have selected No to all of Question 19, please go to Question 23.</b>                                   |                |
| 20. Will participants be chaperoned by more than one investigator at all times?                                   | Choose an item |
| 21. Will at least one investigator of the same sex as the participant(s) be present throughout the investigation? | Choose an item |
| 22. Will participants be visited at home?   | Choose an item |

**Researcher Safety**

|   |                |
|---|----------------|
| 23. Will the researcher be alone with participants at any time?   | Choose an item |
| <b>If Yes, please answer the following questions:</b>   |                |
| 23a. Will the researcher inform anyone else of when they will be alone with participants?   | Choose an item |
| 23b. Has the researcher read the Guidance Notes on 'Conducting Interviews Off-Campus and Working Alone' and will abide by the recommendations within? | Choose an item |

**Methodology and Procedures**

24. Please indicate whether the proposed study:

|   |                |
|---|----------------|
| Involves taking bodily samples (please refer to published guidelines)   | Choose an item |
| Involves using samples previously collected with consent for further research   | Choose an item |
| Involves procedures which are likely to cause physical, psychological, social or emotional distress to participants     | Choose an item |
| Is designed to be challenging physically or psychologically in any way (includes any study involving physical exercise) | Choose an item |
| Exposes participants to risks or distress greater than those encountered in their normal lifestyle                      | Choose an item |
| Involves collection of body secretions by invasive methods  | Choose an item |
| Prescribes intake of compounds additional to daily diet or other  | Choose an item |

|   |                |
|---|----------------|
| dietary manipulation/supplementation                |                |
| Involves pharmaceutical drugs                       | Choose an item |
| Involves use of radiation                           | Choose an item |
| Involves use of hazardous materials                 | Choose an item |
| Assists/alters the process of conception in any way | Choose an item |
| Involves methods of contraception                   | Choose an item |
| Involves genetic engineering                        | Choose an item |

|                                |                |
|--------------------------------|----------------|
| Involves testing new equipment | Choose an item |
|--------------------------------|----------------|

#### Observation/Recording

|   |                |
|---|----------------|
| 25a. Does the study involve observation and/or recording of participants?   | Choose an item |
| If Yes:   |                |
| 25b. Will those being observed and/or recorded be informed that the observation and/or recording will take place? | Choose an item |

#### Consent and Deception

|   |                |
|---|----------------|
| 26. Will participants give informed consent freely? | Choose an item |
|---|----------------|

#### Informed consent

|   |                |
|---|----------------|
| 27. Will participants be fully informed of the objectives of the study and all details disclosed (preferably at the start of the study but, where this would interfere with the study, at the end)? | Choose an item |
| 28. Will participants be fully informed of the use of the data collected (including, where applicable, any intellectual property arising from the research)?  | Choose an item |

|   |                |
|---|----------------|
| 29. For children under the age of 18 or participants who are incapable of making an informed decision for themselves:   |                |
| a. Will consent be obtained (either in writing or by some other means)?   | Choose an item |
| b. Will consent be obtained from parents or other suitable person?  | Choose an item |
| c. Will they be informed that they have the right to withdraw regardless of parental/guardian consent?  | Choose an item |
| d. For studies conducted in schools, will approval be gained in advance from the Head-teacher and/or the Director of Education of the appropriate Local Education Authority?    | Choose an item |
| e. For detained persons, members of the armed forces, employees, students and other persons judged to be under duress, will care be taken over gaining freely informed consent? | Choose an item |

**Deception**

|  |                |
|--|----------------|
| 30. Does the study involve deception of participants (i.e. withholding of information or the misleading of participants) which could potentially harm or exploit participants? | Choose an item |
| <b>If Yes:</b>   |                |
| 31. Is deception an unavoidable part of the study?   | Choose an item |
| 32. Will participants be de-briefed and the true object of the research revealed at the earliest stage upon completion of the study?   | Choose an item |
| 33. Has consideration been given on the way that participants will react to the withholding of information or deliberate deception?  | Choose an item |

**Withdrawal**

|  |                |
|--|----------------|
| 34. Will participants be informed of their right to withdraw from the investigation at any time and to require their own data to be destroyed? | Choose an item |
|--|----------------|

**Storage of Data and Confidentiality**

|  |                |
|--|----------------|
| 35. Will all information on participants be treated as confidential and not identifiable unless agreed otherwise in advance, and subject to the requirements of law? | Choose an item |
| 36. Will storage of data comply with the Data Protection Act 1998?   | Choose an item |
| 37. Will any video/audio recording of participants be kept in a secure place and not released for any use by third parties?  | Choose an item |
| 38. Will video/audio recordings be destroyed within ten years of the completion of the investigation?  | Choose an item |
| 39. Will full details regarding the storage and disposal of any human tissue samples be communicated to the participants?  | Choose an item |
| 40. Will research involve the sharing of data or confidential information beyond the initial consent given?  | Choose an item |
| 41. Will the research involve administrative or secure data that requires permission from the appropriate authorities before use?                                    | Choose an item |

**Incentives**

|  |                |
|--|----------------|
| 42. Will incentives be offered to the investigator to conduct the study?                               | Choose an item |
| 43. Will incentives be offered to potential participants as an inducement to participate in the study? | Choose an item |

### Work Outside of the United Kingdom

|   |                |
|---|----------------|
| 44. Is your research being conducted outside of the United Kingdom?   | Choose an item |
| <b>If Yes:</b>  |                |
| 45. Has a risk assessment been carried out to ensure the safety of the researcher whilst working outside of the United Kingdom? | Choose an item |
| 46. Have you considered the appropriateness of your research in the country you are travelling to?                              | Choose an item |
| 47. Is there an increased risk to yourself or the participants in your research study?  | Choose an item |
| 48. Have you obtained any necessary ethical permission needed in the country you are travelling to?                             | Choose an item |

### Information and Declarations

#### Checklist Application Only:

If you have completed the checklist to the best of your knowledge, and not selected any answers marked with an \*, # or †, your investigation is deemed to conform with the ethical checkpoints. Please sign the declaration and lodge the completed checklist with your Head of Department/School or his/her nominee.

#### † Checklist with Additional Information to the Secretary:

If you have completed the checklist and have only selected answers which require additional information to be submitted with the checklist (indicated by a †), please ensure that all the information is provided in detail below and send this signed checklist to the Secretary of the Sub-Committee.

#### # Checklist with Generic Protocols Included:

If you have completed the checklist and selected one or more of the answers marked with this symbol # a full Research Proposal needs to be submitted to the Ethical Approvals (Human Participants) Sub-Committee unless you, or one of the investigators on this project, are a named investigator on an existing Generic Protocol which covers the procedure. Please download the Research Proposal form from the Sub-Committee's web page. **A signed copy of this Checklist should accompany the full proposal to the Sub-Committee.**

If you, or one of the investigators on this project, are using a procedure covered by a generic protocol, please ensure the relevant individuals are on the list of approved investigators for that Generic Protocol. Include the Generic Protocol reference number and a short description of how the proposal will be used at the end of the checklist in the space provided for additional information.

The completed checklist should be lodged with your Head of Department/School or his/her nominee.

**\* Full Application needed:**

If on completion of the checklist you have selected one or more answers which require the submission of a full proposal (indicated by a \*), please download the Research Proposal form from the Sub-Committee's web page. **A signed copy of this Checklist should accompany the full Research Proposal to the Sub-Committee.**

**Space for Information on Generic Proposals and/or Additional Information as requested:**

Click here to enter text.

**For completion by Supervisor**

Please tick the appropriate boxes. The study should not begin until all boxes are ticked.

- The student has read the University's Code of Practice on investigations involving human participants
- The topic merits further research
- The student has the skills to carry out the research or are being trained in the requires skills by the Supervisor
- The participant information sheet or leaflet is appropriate
- The procedures for recruitment and obtaining informed consent are appropriate

Comments from supervisor:

Click here to enter text.

**Signature of Applicant:** Click here to enter text.

**Signature of Supervisor (if applicable):** Click here to enter text.

**Signature of Head of School/Department or his/her nominee:** Click here to enter text.

**Date:** Click here to enter text.

# Informed Consent Form



## 2nd Study –Happy Homes Workshops

### INFORMED CONSENT FORM (to be completed after Participant Information Sheet has been read)

- The purpose and details of this study have been explained to me. I understand that the purpose of this study is to explore happiness in the home and that all procedures have been approved by the Loughborough University Ethics Approvals (Human Participants) Sub-Committee. Yes  No
- I have read and understood the information sheet and this consent form. Yes  No
- I have had an opportunity to ask questions about my participation. Yes  No
- I understand that I am under no obligation to take part in this study. Yes  No
- I understand that I have the right to withdraw from this study at any stage for any reason, and that I will not be required to explain my reasons for withdrawing. Yes  No
- I agree to participate in this study. Yes  No
- I agree to my contribution being used anonymously to demonstrate and/or comment on the research at future conferences or in publications. Yes  No
- I understand that all the information I provide will be treated in strict confidence and will be kept anonymous and confidential to the researchers unless (under the statutory obligations of the agencies which the researchers are working with), it is judged that confidentiality will have to be breached for the safety of the participant or others. Yes  No
- I agree to keep the responses of other participants in this workshop confidential unless they grant me permission to do otherwise. Yes  No
- I agree to be interviewed about my workshop experience at a later date Yes  No

Your name \_\_\_\_\_

Your signature \_\_\_\_\_

Signature of investigator \_\_\_\_\_

Date \_\_\_\_\_

## Study Information Sheet

**Name:** Emily Corrigan Doyle  
**Address:** Design School, Loughborough University, Epinal Way, Loughborough LE11 3TU  
**Contact:** e.corrigan-doyle@lboro.ac.uk



### **Study 1 – A Snapshot of Home Participant Information Sheet**

#### **What is the purpose of the study?**

The purpose of this study is to explore the everyday routines and activities of home life from the perspective of the inhabitants (i.e. what triggers pleasant or unpleasant feelings) in the home environment and what this can collectively tell us about the characteristics or qualities that make a home ideal.

#### **Who is doing this research and why?**

This study is part of a PhD research project supported by Loughborough University. This PhD project is to expand the Design School's portfolio of sustainable design research in social sustainability and innovation and to also contribute to sustainable practice in the School of the Arts.

#### **Exclusion criteria**

You must be a current UK resident, live locally to Loughborough town, a homeowner, live with family and be over the age of 18 to take part in this study.

#### **What will I be asked to do and how long will it take?**

For **2 days (i.e. a typical working day and a day off work at home)** you will be asked to create a visual narrative of photographs taken by you that tell the story of your experience at home those days. Please note the place and time of day each is taken and try to make them as representative and as honest as possible. A camera phone is very suitable for this. After these 2 days have finished you will be invited to send your images to the researcher via email or other online methods or in person.

Then with your consent, you will be invited to have a face-to-face interview, **1 hour maximum**, with the researcher at a time and place that is convenient about the content you have submitted. This may be audio/video-recorded.

#### **Once I take part, can I change my mind?**

**Yes!** After you have read this information and asked any questions you may have we will ask you to complete an Informed Consent Form, however if at any time, before, during or after the sessions you wish to withdraw from the study please just contact the main investigator. You can withdraw at any time, for any reason and you will not be asked to explain your reasons for withdrawing.

However, once the results of the study have been submitted (expected to be by **30/06/15**), it will not be possible to withdraw your individual data from the research.

#### **Will I be required to attend any sessions and where will these be?**

You will meet with the researcher (Emily) for interviewing. This will be held at a location and time that is convenient for both parties and will be agreed upon after all images have been submitted.

#### **What personal information will be required from me?**

Current age, nationality, number of occupants in household, age of other occupants, relationship to other occupants and current occupation.



**Are there any risks in participating?**

Overall, potential risks associated with participation in the study are unlikely and of low risk.

**Will my taking part in this study be kept confidential?**

**Yes.** Once the images have been sent to the researcher they will be sorted and saved electronically on a computer only accessible to the researcher in a card key locked office in the Design School at Loughborough University. This office is only open to authorised university staff and other research students. All previous copies will be erased.

The data will be retained until the publication of the final PhD - expected to be before September 2018.

**I have some more questions; who should I contact?**

You may contact Emily Corrigan Doyle using the contact details above.

**What will happen to the results of the study?**

The results of this study will be used to understand what the ideal home for happiness and sustainability is and will drive future work looking at how people might be empowered to create this for themselves.

Data gather from this study (i.e. results from the interview, photos collected) may be used to demonstrate and/or comment on the research at future conferences or in publications. Your contribution will always be kept anonymous but if you do not wish to be included you must notify the researcher **before 30/6/15**.

**What if I am not happy with how the research was conducted?**

If you are not happy with how the research was conducted, please contact Ms Jackie Green, the Secretary for the University's Ethics Approvals (Human Participants) Sub-Committee:

Ms J Green, Research Office, Hazlerigg Building, Loughborough University, Epinal Way, Loughborough, LE11 3TU. Tel: 01509 222423. Email: [J.A.Green@lboro.ac.uk](mailto:J.A.Green@lboro.ac.uk)

The University also has a policy relating to Research Misconduct and Whistle Blowing which is available online at [http://www.lboro.ac.uk/admin/committees/ethical/Whistleblowing\(2\).htm](http://www.lboro.ac.uk/admin/committees/ethical/Whistleblowing(2).htm).

**Is there anything I need to do or before the sessions?**

You will need to have access to a camera or smart phone with a camera. If this is not possible please notify the researcher who will try and arrange one for you for the period of the study.

**Is there anything I need to bring with me?**

For the interview, as long as you have sent all your images to the researcher in advance, you do not need to bring anything with you. You are however welcome and encouraged to bring anything with you that you want to show or discuss in relation to the study.

**What do I get for participating?**

You will be making a valuable contribution towards the study of the relationship between happiness and sustainability in the home and through this practice and reflection you may become more aware of the happiness and/or stress cues in your own home environment and perhaps how you might want to change this in the future. Once all the data has been collected and analysed from this study you will also be notified of the results and, if you so wish, will be kept informed on the future progress of the research project.

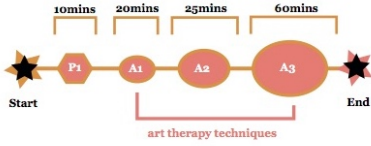
## Appendix Y.

Sample of Slides used in Presentation for Study 2 Workshops




Emily Corrigan-Doyle MA, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University

### Workshop Format



Emily Corrigan-Doyle MA, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University

### Home is a complex system



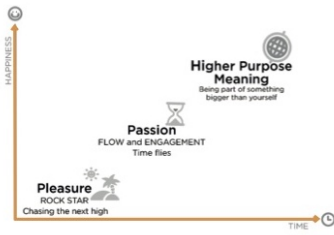
Emily Corrigan-Doyle MA, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University

### Home can facilitate many needs




Emily Corrigan-Doyle MA, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University

### Three sequential types of happiness



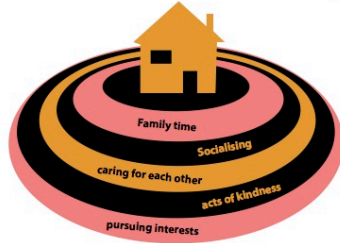
Emily Corrigan-Doyle MA, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University

### Authentic happiness can be sustainable



Emily Corrigan-Doyle MA, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University

## Happy and sustainable home activities



Emily Corrigan-Doyle MA, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University

## Activity 1 – Your Personal Art History (part 1)



You were asked to clarify your beliefs about art by using the questions below:

- What was your experience of art growing up? (i.e. museums, galleries, school, home)
- What kind of beliefs did your family have about art?
- Did you have a favourite art or craft activity? (i.e. colouring, knitting, building, drawing, paint by numbers)
- Did you have any negative experiences? (e.g. were you told that you weren't artistic)

Emily Corrigan-Doyle MA, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University

## Activity 1 – Image awareness exercise (part 2)



You were asked to pick a place where you spend the most time at home and observe the imagery around you.

- Where did you conduct the exercise?
- What images did you become aware of?
- What stood out for you?
- What particular image(s)/object(s) would you change if you could?
- How would you change it? Why?

Emily Corrigan-Doyle MA, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University

## Activity 2 – Warm-up exercise



Emily Corrigan-Doyle MA, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University

## Activity 3 – Main activity



Visualise a positive experience with your family at home.

- What are you doing?
- Where are you?
- How did you end up here?
- What role are you and other family members playing?
- How long did you have this experience for?
- When and why did it change or end?
- Think about what colours, forms, shapes, textures and sizes feel right for your depiction based on the above.

Emily Corrigan-Doyle MA, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University



Emily Corrigan-Doyle MA, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University

## Appendix Z.

Example of Workshop Protocol for Study 2 Workshop

## Workshop Protocol – Happy-Homes Workshop

Date: 11/04/16

Room: LDS001

Time: 5.10pm-7.10pm

### Preparation for workshop:

- Book room
- Recruit 6 participants
- Workout layout for room
- Workout timings
- Source materials
- Get ethical clearance
- Send out participant information packs
- Get consent forms signed (on day)
- Order tea & coffee – send reminder on day
- Source snacks
- Sharpen all colouring pencils

### Materials needed:

- Camera x1
- Video & tripod x1
- Dictaphone x1
- A4 with printed house silhouettes pages x 6
- Pens x6
- Markers of various colours (red, orange, yellow, green, blue, purple, black)
- Packs of colouring pencils x4
- Paint, x3 of each colour (red, orange, yellow, green, blue, purple, pink, black, white)
- Paintbrushes x24
- Water containers x6
- Palettes x6
- Glue x6
- Scissors x6
- Collage materials (printed imagery, magazines, coloured paper etc.)
- Paper sheets A1, A3, A2 x6
- Pack of crayons x4
- PDF presentation slides (introduction to workshop, concepts of home and happiness, workshop format)
- Activity 1 slide – Discussion & sharing of personal art history & image awareness exercise outcomes
- Activity 2 slide – warm up activity (house silhouettes)

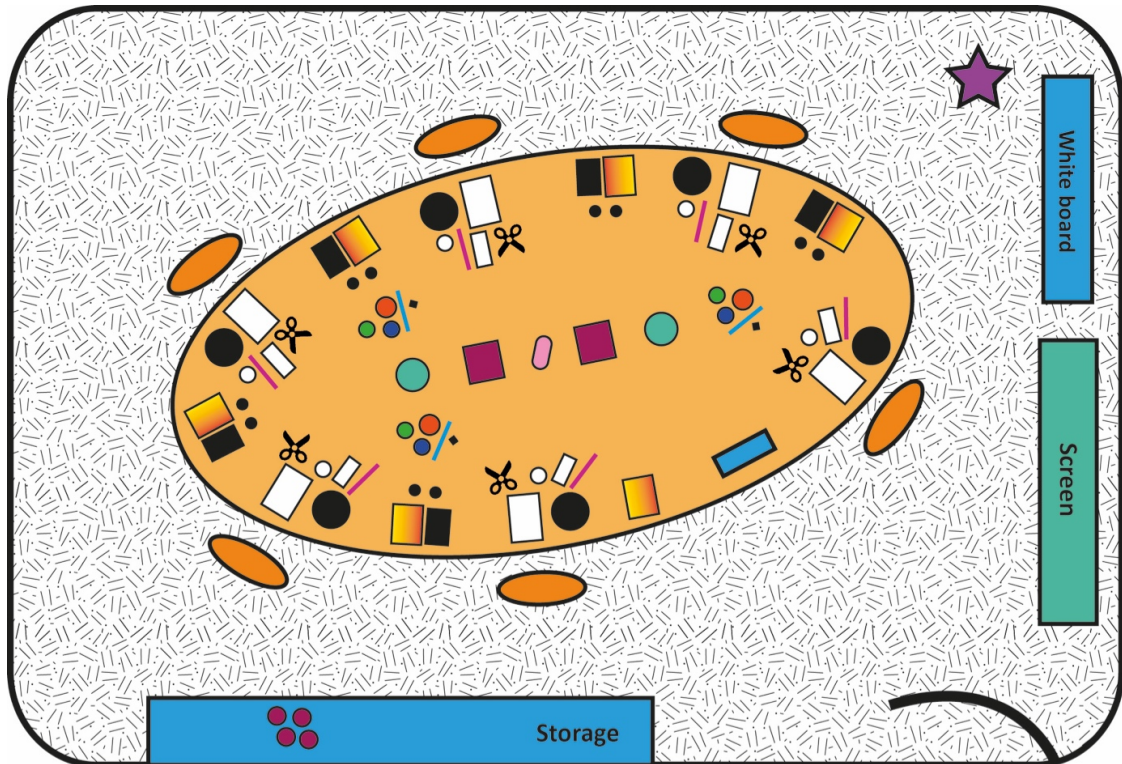
- Activity 3 slide – main activity (visualising positive family time in the home)
- Blue tac x1
- Water, sweets & snacks for table
- Small gifts for participants x6
- Pack of colouring pencils x4
- Sharpeners x2
- Tissues
- Paper to protect the table

#### Setup of room on the day:

- Jugs of water (x2) and plastic cups set up in the centre, at each end of table
- Protective paper covering entire table area
- Art materials (paints, colouring pencils, markers) stored in three islands – one located between every two participants
- Paper plates, scissors, pens, glass jars (with water), informed consent forms, house silhouette pages and brushes placed at each participant's seating area
- Magazines and coloured paper placed between each participants' seating area
- Video and tripod set up to capture activities at the table
- Dictaphone left in centre of the table (with correct setting – lecture)
- PDF Presentation set up with 1<sup>st</sup> slide on display
- Gifts stored out of view

*\*See next page for visual of room layout*

## Room layout:



|                  |  |                          |
|------------------|--|--------------------------|
| Participant      | Tissues                                    | Water jug & plastic cups |
| Dictaphone       | Video camera                               | Snacks & sweets          |
| Tea & coffee     | Coloured paper                             | Computer interface       |
| Paints           | Magazines                                  |                          |
| Paper plates     | Glue                                       |                          |
| Brushes          | Paper with house silhouette & consent form |                          |
| Water containers | Paper covering the desk                    |                          |
| Markers          | Colouring pencils                          |                          |
| Crayons          | Sharpeners                                 |                          |

## Breakdown of Workshop:

### **Introduction part 1 – welcome to workshop (5mins)**

1. Participants arrive and are invited into the room at 5pm.
2. Participants are welcomed and thanked for agreeing to take part in the study.
3. The facilitator introduces herself, invites participants to take some beverages and snacks, and tells them where nearest toilets and exits are.
4. Participants are asked to take a seat, when ready, and sign the consent forms.
5. The aim, objectives and benefits of the workshop are communicated:



*“This workshop will use art therapy techniques to explore happiness in the home. In particular, we will be focusing on positive family time. This workshop will also be used to gather feedback on its structure such as timings, format, tools, information supplied and overall experience to maximise its success in future studies. Although this workshop employs some art therapy techniques, this session does not include therapy. It is more about personal exploration as opposed to development”*

*“I hope that you will find this an enjoyable experience and that it will, possibly, make you more aware of your own aesthetical preferences and allow you to better communicate and express your thoughts visually. Additionally, through the activities in the workshop today, you may gain insights into yourself as a person, the role you play in your family and ways of extending positive experiences with them in the home”*

6. Format of the day is discussed (next slide – visual of day’s format on-screen)
7. The aims of the art exercises are made clear to participants (next slide – Art Therapy example images on-screen)

*“Art creation in this session is not about creating perfect pretty pictures nor is it a therapy session. It’s about finding personal meaning, exploration and insight using art media as a tool to create visual metaphors for inner thoughts and feelings. There are no wrong or right ways of doing this. There are no wrong or right answers. Try to let go of any self-criticism. Images can be completely fictitious, depictions of real life, abstract or a combination of all three. Try to allow yourself to go with what feels right as supposed to what looks right”*

### **Introduction part 2 – Presentation on background research and concepts (5mins)**

Presentation is given on concepts of happiness, home and why this research is important (next slides).

### **Activity 1 – Discussion & sharing of personal art history & image awareness exercise outcomes (20mins)**

1. Activity 1 slide is put on display.
2. The video recorder and Dictaphone are switched on.
3. Participants are invited to introduce themselves one-by-one and share their outcomes from the personal art history and image awareness exercise.

### **Activity 2 – warm up activity (house silhouettes) (25mins)**

1. Activity 2 slide is on display.
2. The facilitator discusses the rules of the activity (i.e. no talking during art making).
3. Participants are each given a house silhouette.

4. Participants are instructed to fill the silhouettes with whatever image comes to mind in any art material of their choosing.
5. This should last for approx. **10 minutes** and be conducted in silence.
6. Participants are then invited to one by one to discuss the outcome of the images for **15 minutes**.
7. Once each person is done discussing their image, the facilitator invites participants to say the first thing that comes to mind when looking at their image.

### **Activity 3 – main activity 1 (visualising positive family time in the home) (1hour)**

1. Activity 3 slide is on display with prompts such as:
  - Think about what feels right as opposed to what looks aesthetically pleasing
  - Think about your use of colours, shapes, textures, size, different mediums.
  - Where are you? Why are you here? What role are you and the other members of your family doing? How did you get here?
2. Participants are now invited to reflect on a pleasant experience in the home involving the family together.
3. They are asked to work for **25-30 minutes** in silence to visual this by using any of the art materials available.
4. Each participant is invited to discuss his or her image (**30 minutes**).

### **Wrapping up (5mins)**

Participants are thanked for their time, given small presents and feedback forms to fill out.

### **Purposes of each activity:**

#### **Activity 1 – Discussion & sharing of personal art history & image awareness exercise outcomes**

- Ice breaker activity for participants to feel more relaxed around each other and in the space
- To set the right context for the use of art therapy techniques (i.e. not about making pretty pictures) by making participants aware of their personal biases and thoughts towards art
- To initiate further reflection about important personal imagery that might prove useful in allowing participants to understand their images – either during or after the workshop

#### **Activity 2 – warm up activity (house silhouettes)**

- To allow participants to play and explore the materials initially with some restrictions i.e. within the silhouette of the house
- To start to elicit emotional responses related to home using this visual as a prompt
- To test the use of spontaneous art making in eliciting unconscious emotions and thoughts
- To use other participants' comments to help everyone find personal meaning in their artwork

**Activity 3 – main activity 1 (visualising positive family time in the home)**

- To initiate reflection on what contributes to a collective positive family experience in the home
- To allow the participant a period of intense self-reflection on personal experiences around this topic, through art creation, so that they may generate rich insights to share with the group during the discussions to follow
- To begin generating a better understanding of the topics being explored (i.e. contributors and inhibitors of positive family time in the home), and to use this to frame later individual interview questions
- To use other participants' comments to help everyone find personal meaning in their artwork

## Appendix AA.

Advertisements for Study 2 Happy-Homes Workshops

ABOUT

- > What we do
- > Staff
- > Visit

RADAR

- > News
- > Events
- > Archive

WHAT'S ON

- > Concerts
- > Literature & Talks
- > Performance
- > Other

GET INVOLVED

- > Music
- > Tuition & Classes
- > Clubs & Societies
- > Other

CALENDAR

- > Calendar
- > Book Tickets
- > Parking

COLLECTION

- > About
- > Featured
- > Campus Art Trail

Would you like to enhance happiness in your home

Take part in a **free 2 hour art making workshop** at Loughborough Design School. All materials will be supplied and you **don't need to be artistic** to take part!

**Want to Enhance Happiness in your Home?**

**To Participate:**  
 You must be over 18  
 You should currently be living with family or a spouse  
 You are happy to be interviewed about your workshop experience at a later date.

You will learn how to increase happiness at home and will receive a small gift for your participation

**If interested contact:**  
 Emily Corrigan-Doyle  
 E.Corrigan-Doyle@lboro.ac.uk

Mon 11 April, 5:10pm - 7:10pm

Venue: Loughborough Design School

Contact: E.Corrigan-Doyle@lboro.ac.uk

**A free art making workshop, aimed at improving home life happiness.**

Loughborough Design School, Monday 11th April, 5.10pm -7.10pm.

All art materials will be supplied and you do not need to be artistic to take part.

This workshop will use art therapy techniques to explore positive family experiences and the happiness dimensions of home life. However, please note it is not a therapy session. All those who participate will receive tips and strategies to improve happiness at home and a £10 shopping voucher.

Spaces are very limited (6 people maximum) so please get in touch soon to guarantee your place.

If interested please contact Emily Corrigan-Doyle at [E.Corrigan-Doyle@lboro.ac.uk](mailto:E.Corrigan-Doyle@lboro.ac.uk) for full details.





Take part in a **free 2 hour art making workshop** at Loughborough Design School. All materials will be supplied and you **don't need to be artistic** to take part!

# Want to **Enhance Happiness** in your **Home?**

You will learn how to increase happiness at home and will receive a small gift for your participation

## To Participate:

You must be over 18  
You should currently be living with family or a spouse  
You are happy to be interviewed about your workshop experience at a later date

## If interested contact:

**Emily Corrigan-Doyle**  
**E.Corrigan-Doyle@lboro.ac.uk**

## Appendix AB.

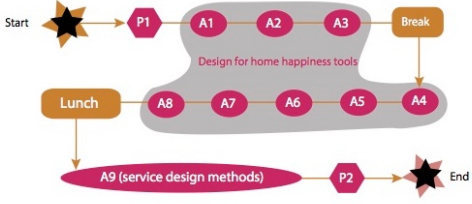
Sample of Slides used in Presentation for Main Studies'  
Pilot Workshop



# Designing for Happy Homes Workshop

Emily Corrigan-Doyle MA, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University

## Workshop Format




Start → P1 → A1 → A2 → A3 → Break → Lunch → A8 → A7 → A6 → A5 → A4 → A9 (service design methods) → P2 → End

Design for home happiness tools

## Activities for long term happiness can...

(Escobar-Tello and Bhamra, 2013)

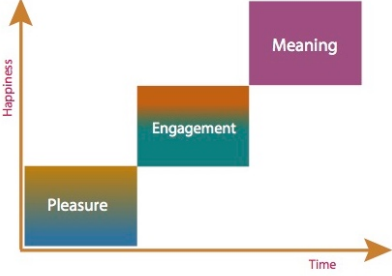


**Happiness triggers:** Personality, Self-esteem, Extroversion (being active), Interacting with others (connect), Goals, Gratitude (take notice), Acts of Kindness (give).

**Sustainable Society Characteristics:** High Social Interaction, Low Material Consumption, Sharing Products & Services, Basic Needs Satisfaction, Slow Change (time and healthy pace of life), Holistic Health (physical and emotional activities), Virtuousness Skills & Ethics, Communities (positive surroundings and neighbourhoods), Pro-Active Citizenship.

**...complement sustainable practices**

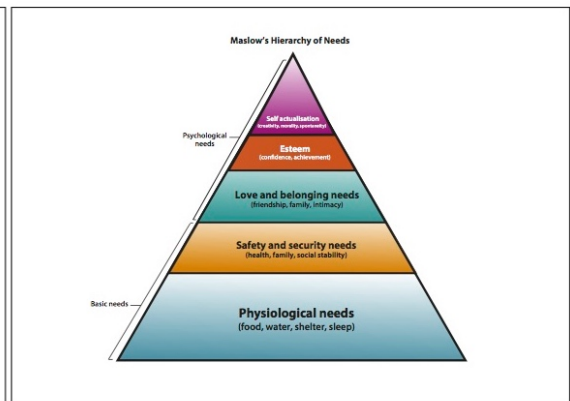
## 3 Sequential Types of Happiness



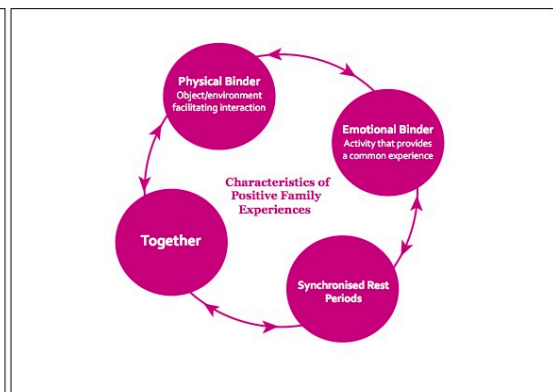
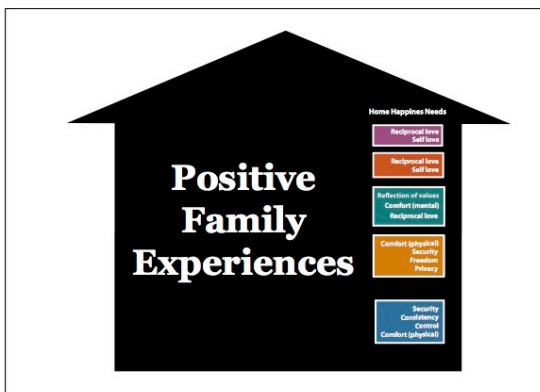
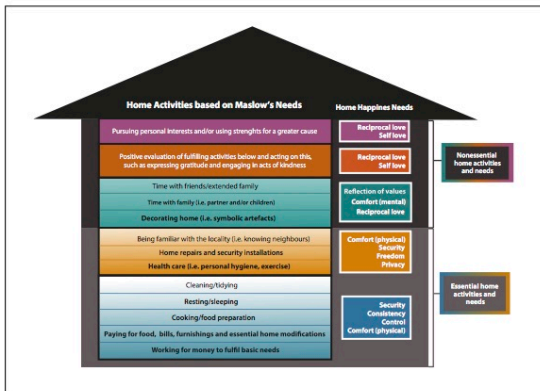
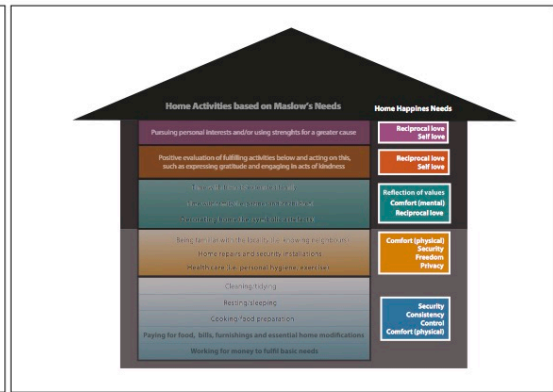
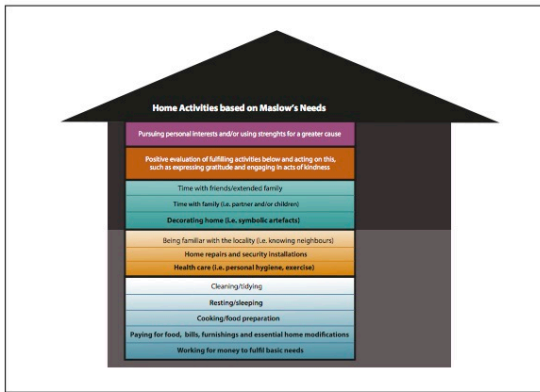
Happiness ↑

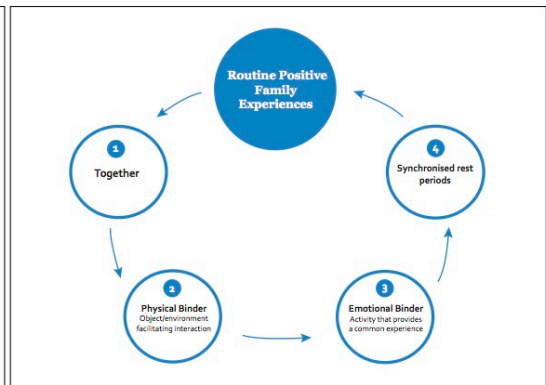
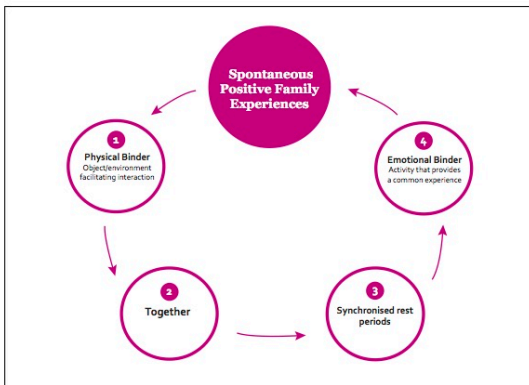
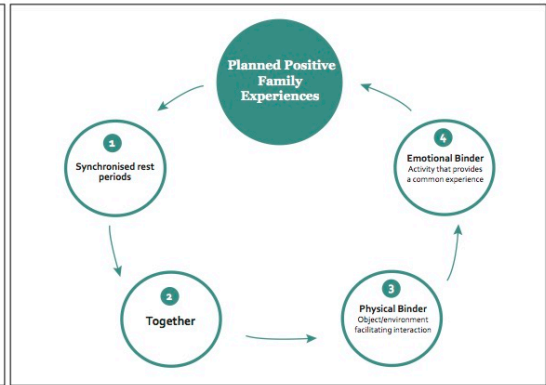
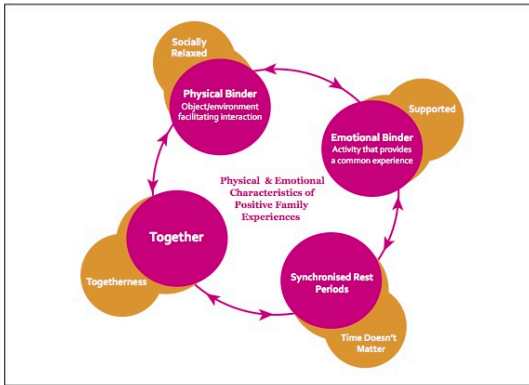
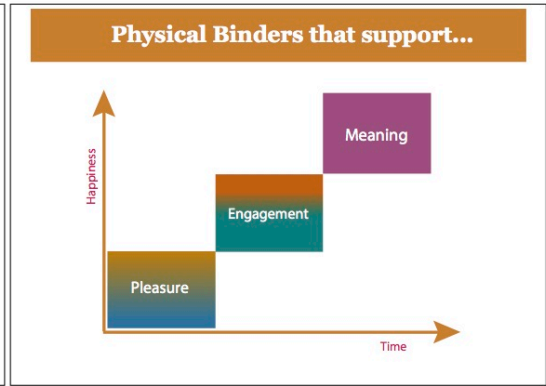
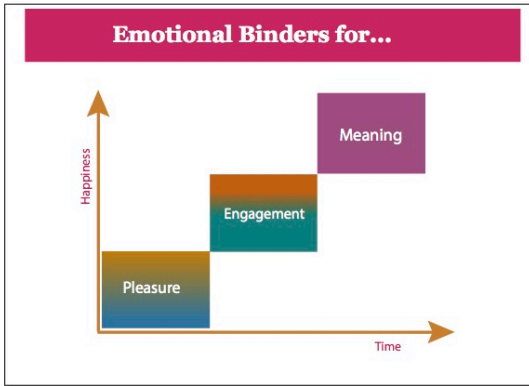
Time →

Pleasure → Engagement → Meaning











### Sharing Positive Home Experiences

- Who were you with?
- What were you and they doing?
- What objects/environments facilitated and/or enhanced the experience?
- What were you feeling physically and emotionally?
- How did you end up in this situation?
- Would you consider this scenario planned, spontaneous or routine, and why?



### Reimagining Home Experiences



How could essential home activities support, facilitate or be combined with nonessential home activities or vice versa?



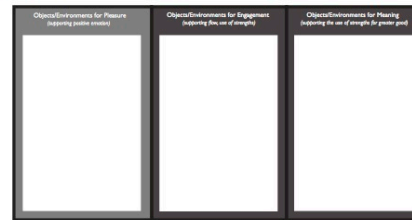
### Exploring Emotional Binders for Pleasure, Engagement and Meaning



In these new home experiences, what are the activities/emotional binders for pleasure, engagement or meaning?  
How do they make individuals feel physically and mentally supported in these moments?



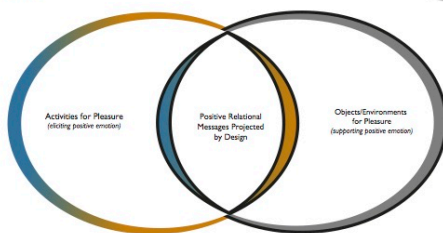
### Identifying Physical Binders for Pleasure, Engagement and Meaning



What objects and/or environments support activity/emotional binders for pleasure, engagement and meaning?  
How do they allow individuals to feel socially relaxed?



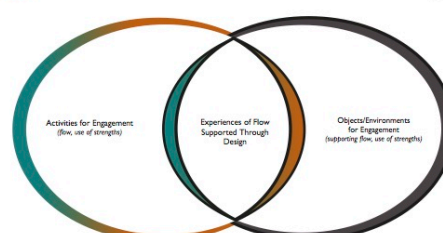
### Initiating Group Interaction Through Design



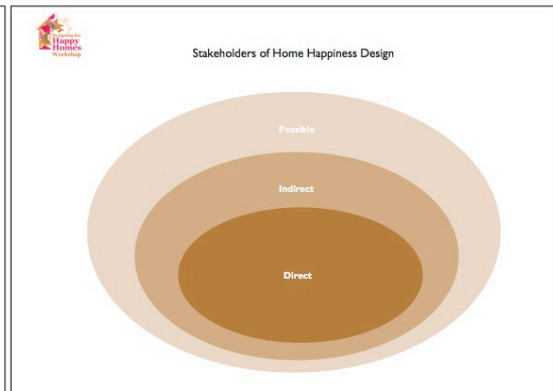
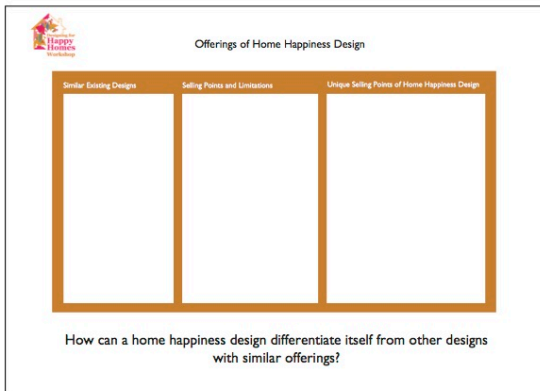
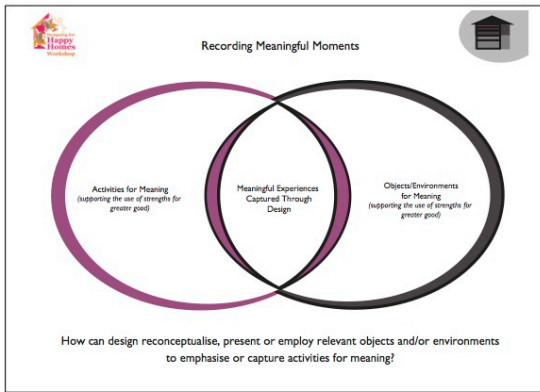
How can design reconceptualise, present or employ relevant objects and/or environments to represent opportunities for pleasure activities?  
In other words, what are its positive relational messages?



### Prolonging Engagement Through Flow



How can design reconceptualise, present or employ relevant objects and/or environments to support activities for engagement?



**User Journey Map**

| Stages                      | Discovery  | Purchase/Join  | Interaction  | Continued Use   | Refer   |
|-----------------------------|--|--|--|---|---|
| <b>Possible Touchpoints</b> | <ul style="list-style-type: none"> <li>Facebook</li> <li>Instagram</li> <li>Website</li> <li>YouTube</li> <li>Podcasts</li> <li>Direct Mail</li> <li>Referrals from other designers</li> </ul> | <ul style="list-style-type: none"> <li>Website</li> <li>Instagram</li> <li>YouTube</li> <li>Podcasts</li> <li>Direct Mail</li> <li>Referrals from other designers</li> </ul> | <ul style="list-style-type: none"> <li>Website</li> <li>Instagram</li> <li>YouTube</li> <li>Podcasts</li> <li>Direct Mail</li> <li>Referrals from other designers</li> </ul> | <ul style="list-style-type: none"> <li>User experience</li> <li>User interface</li> <li>Product quality or value</li> <li>Service quality</li> <li>Customer support</li> <li>Additional products</li> </ul> | <ul style="list-style-type: none"> <li>Referrals from other designers</li> <li>Word of mouth</li> </ul> |
| <b>User Journey(s)</b>      |  |  |  |   |   |
| <b>Potential Questions</b>  | How are users informed of the design?  | How do users join, purchase or experience the design in the first place? Why do they prefer to engage with designers?  | How do users engage with the design?   | Why would users continue to engage with the design?   | Why would users refer or recommend the design to others?  |





Emily Corrigan-Doyle MA, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University

## Appendix AC.

Example of Workshop Protocol for Pilot Main Studies' Workshop

# Designing for Happy Homes Workshop Protocol

**Date:** 21.10.16

**Room:** 2.33

**Time:** 10am – 2.45pm

## Preparation for workshop:

- Book room
- Recruit 6 participants
- Workout layout for room
- Workout timings
- Source materials
- Get ethical clearance
- Send out participant information sheets
- Get consent forms signed (on day)
- Get participant details forms filled out (on day)
- Source snacks

## Materials needed:

- Camera x1
- Video & tripod x1
- Dictaphone for each team
- Visual of home activities in relation to Maslow's Needs (ENHAS), one per group
- Set of markers, one per group
- Flipchart paper, one per group
- Steps for Designing for Home Happiness Templates Sheet (SDHHTS), one per group
- 25 Common Positive Emotions Sheet, one per group
- 24 Strengths Sheet, one per group
- Design Tool 1 (Reimagining home experiences) template, one per group
- Design Tool 2 (Exploring emotional binders for pleasure, engagement and meaning) template, one per group
- Design Tool 3 (Identifying physical binders for pleasure, engagement and meaning) template, one per group
- Design Tool 4 (Initiating group interaction through design) template, one per group
- Design Tool 5 (Prolonging engagement through flow) template, one per group
- Design Tool 6 (Recording meaningful experiences) template, one per group

- Design Tool 7 (Designing for home happiness) summative template, one per group
- Offerings template, one per group
- Stakeholder map template, one per group
- User journey template, one per group
- Selection of different colour post-its for each group
- Persona information sheet, one per group
- PDF presentation slides (introduction to workshop, introduction to concepts of home and happiness, workshop format, positive family experiences)
- Activity 1 slide – Discussion and sharing of positive home experiences with others, and introduction of persona and Home Happiness Design Tools
- Activity 2 slide – Design Tool 1 (Reimagining home experiences)
- Activity 3 slide – Design Tool 2 (Exploring emotional binders for pleasure, engagement and meaning)
- Activity 4 slide – Design Tool 3 (Identifying physical binders for pleasure, engagement and meaning)
- Activity 5 slide – Design Tool 4 (Initiating group interaction through design)
- Activity 6 slide – Design Tool 5 (Prolonging engagement through flow)
- Activity 7 slide – Design Tool 6 (Recording meaningful experiences)
- Activity 8 slide – Design Tool 7 (Designing for home life happiness)
- Activity 9 slide – Service design tool, offerings map
- Activity 9 slide – Service design tool, stakeholder map
- Activity 9 slide – Service design tool, customer journey map
- Blue tac, one pack per group
- Water, sweets & snacks for table
- Feedback forms for each participant
- Participant details forms for each participant
- Consent forms for each participant

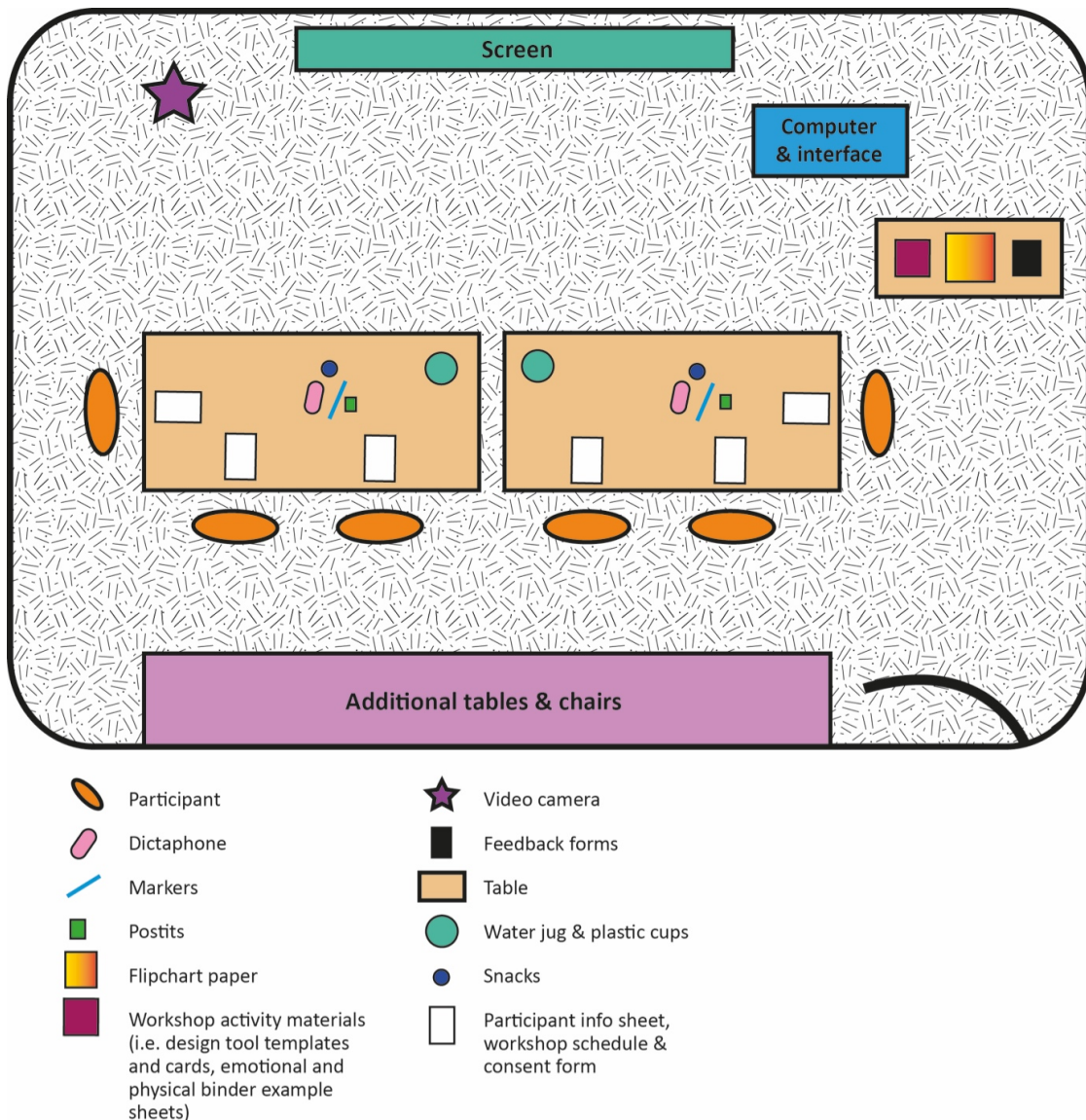
#### Setup of room on the day:

- Jugs of water and plastic cups is set up in the centre of each table
- Consent forms are placed on at each seat around tables
- Flipchart paper, markers, post-its are placed in the centre of each team's table
- ENHAS, 25 Common Positive Emotions Sheets, 24 Strengths Sheets, persona sheets, SDHHTSs, feedback forms and all Home Happiness Design Tool templates are placed in separate piles on a table close to facilitator for handing out to groups
- Video and tripod is set up to capture activities on tables
- Dictaphone is left in centre of each table for each group (with correct setting – lecture)
- PDF Presentation is set up with 1<sup>st</sup> slide on display



*\*See next page for visual of room layout*

### Room layout:



### Breakdown of Workshop:

#### **Introduction part 1 – welcome to workshop (5 minutes)**

1. Participants arrive and are invited into the room at 10am.
2. Participants are welcomed and thanked for agreeing to take part in the workshop.
3. The facilitator introduces herself, invites participants to take some beverages and snacks, and tells them where nearest toilets and exits are.
4. Participants are asked to take a seat and sign the consent forms.
5. The aim, objectives and benefits of the workshop are communicated:

*“This workshop will use and test new tools for designing for home happiness to explore and create relevant concepts for happy and sustainable domestic lifestyles. In particular, we will be focusing on creating design interventions that support long-term home happiness through the facilitation of positive family experiences in this context. This workshop will also be used to gather feedback on its structure such as timings, format, tools and information supplied, and the overall experience to maximise its success in the future.”*

*“I hope that you will find this experience enjoyable and that it will provide you with inspiration to create designs for long-term happiness and more sustainable practices, using home as a case study.”*

6. Format of the day is discussed (next slide – visual of day’s format on-screen)

### **Introduction part 2 – Presentation on background research and concepts (10 minutes)**

Presentation is given on concepts of happiness, home, positive family experiences and its relevance for design and future sustainable lifestyles (next slides).

### **Activity 1 – Sharing of Positive Home Experiences with Others, and Introduction of Persona and SDHHTS (30mins)**

1. Activity 1 slide is put on display.
2. The video recorder and Dictaphone are switched on.
3. Participants are invited to one by one introduce themselves and share their reflections on positive home experiences with others.
4. The facilitator then hands out the SDHHTS to each group and briefly explains the steps involved.
5. Following this, the facilitator introduces the persona and provides each team with an information sheet, allowing 5 minutes for reading before moving on to the next activity.

### **Activity 2 – Reimagining Home Experiences (15 minutes)**

1. Activity 2 slide is exhibited.
2. The facilitator introduces Design Tool 1, a template and ENHAS, giving a copy to each group, and suggests how they can be used together.
3. Participants are left to work with these for approximately 10 minutes.

### **Activity 3 – Exploring Emotional Binders for Home Happiness (20 minutes)**

1. Activity 3 slide is positioned on screen.
2. The facilitator offers Design Tool 2, a template, 25 Common Positive Emotions Sheet and 24 Strengths Sheet, to each design team and advises them on how they can be employed collectively.

3. Participants allocated approximately 15 minutes to explore this tool.

**\*\*\* Break (15 minutes) \*\*\***

#### **Activity 4 – Identifying Physical Binders for Home Happiness (15 minutes)**

1. Activity 4 slide is visualised on screen.
2. The facilitator introduces the Design Tool 3 template to each group and provides guidance on its use.
3. Participants are left to utilise this for roughly 10 minutes.

#### **Activity 5 – Initiating Group Interaction through Design (15 minutes)**

1. Activity 5 slide is displayed.
2. The facilitator presents the Design Tool 4 template to each group and discusses how it can be employed.
3. Participants are given around 10 minutes to explore design ideas with this tool.

#### **Activity 6 – Prolonging Engagement through Flow (15 minutes)**

1. Activity 6 slide is placed on display.
2. The facilitator gives the Design Tool 5 template to each team and presents how it might guide design ideation.
3. Participants have up to 10 minutes to generate design concepts with this tool.

#### **Activity 7 – Recording Meaningful Moments (15 minutes)**

1. Activity 7 slide displays on screen.
2. The facilitator provides each group with the Design Tool 6 template and offers console on its employment.
3. Participants are given an estimated 10 minutes creating relevant design concepts with this tool.

#### **Activity 8 – Designing for Home Life Happiness (5 minutes)**

1. Activity 8 slide displays on screen.
2. The facilitator hands out the final Design Tool 7 template to every team and explains its purpose.
3. Participants are given 5 minutes to compile results from Activities 5 to 7 onto this final one.

**\*\*\* Lunch Break (1 hour) \*\*\***

#### **Activity 9 – Using Service Design Tools to Formalise Design for Home Happiness Concepts (45 minutes)**

1. Activity 9 slide is placed on display.

2. The facilitator gives out the offerings map, stakeholder map and customer journey map templates to each team to guide emerging home happiness designs.
3. Participants are asked to use the offerings map template to spend 15 minutes researching similar pre-existing designs to their developing concepts to establish and develop unique selling points in their final design solutions.
4. Participants are then advised to the stakeholder map template to list all direct, non-direct and possible stakeholders for 10 minutes.
5. Lastly, participants are invited to construct a customer journey map using the customer journey map template for 20 minutes.

### **Presentation of Final Design Outcomes (15 minutes)**

Participants are asked to showcase their final design concepts and share the process they followed using results from the tools supplied.

### **Wrapping up (5mins)**

Participants are thanked for their time and given feedback forms to fill out.

### **Purpose of Each Activity:**

#### **Activity 1 – Sharing of Positive Home Experiences with Others, and Introduction of Persona and SDHHTS**

- To provide an ice breaker activity for participants to feel more relaxed around each other
- To enable participants to draw connections between home happiness concepts presented and their own real-world experiences, improving understanding and engagement with the theory
- To initiate reflection on design's role or possible roles in home happiness and sustainable lifestyles

#### **Activity 2 – Reimagining Home Experiences**

- To allow participants to begin conceptualising new home scenarios that could collectively support basic and psychological needs

#### **Activity 3 – Exploring Emotional Binders for Home Happiness**

- To initiate reflection on what kind of activities could lead to long-term happiness from these imaginary home experiences, such as those for pleasure, engagement and meaning
- To create a better understanding of how actions for pleasure, engagement and meaning are differentiated or related to each other

#### **Activity 4 – Identifying Physical Binders for Home Happiness**

- To enable contemplation about physical attributes that could support these activities, such as objects and/or environments that facilitate interactions for pleasure, engagement and meaning
- To inspire thinking about how design could utilise pre-existing physical binders or introduce new ones to promote actions for pleasure, engagement and meaning

#### **Activity 5 – Initiating Group Interaction Through Design**

- To encourage ideation around how design could change or alter perceptions of physical binders in the home to initiate group interaction

#### **Activity 6 – Prolonging Engagement Through Flow**

- To instigate reflection on design possibilities that support experiences of flow by reconfiguring the physical home environment and/or objects either visually, physically or perceptually

#### **Activity 7 – Recording Meaningful Moments**

- To allow for the conceptualisation of how design could capture, emphasise and encourage meaningful home experiences by utilising relevant physical binders, previously explored in the former activities

#### **Activity 8 – Designing for Home Life Happiness**

- This step enables participants to compile, reflect and modify where necessary results from Activities 5, 6 and 7, providing the core components for a home happiness design solution

#### **Activity 9 – Using Service Design Tools to Formalise Home Happiness Design Concepts**

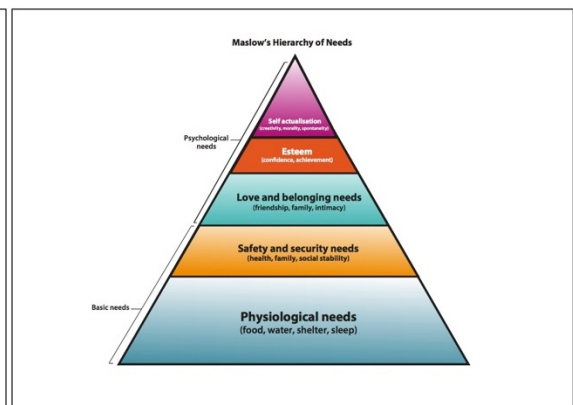
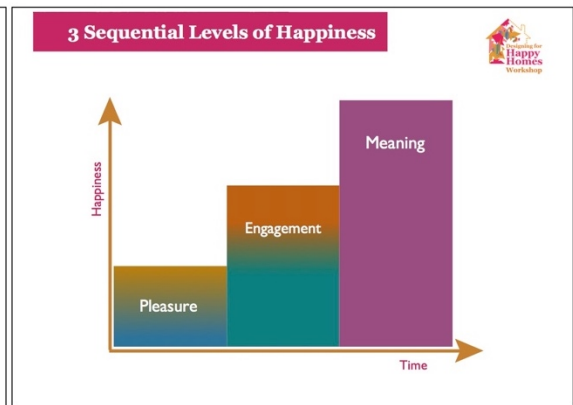
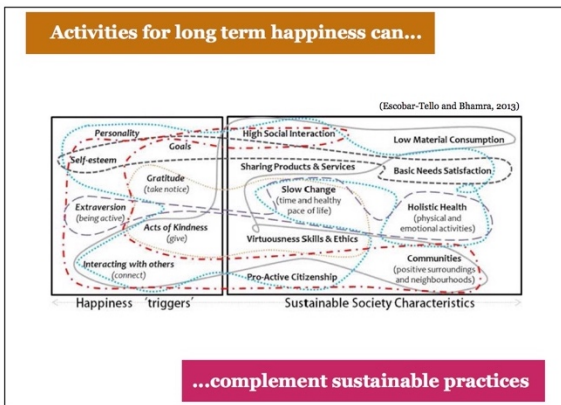
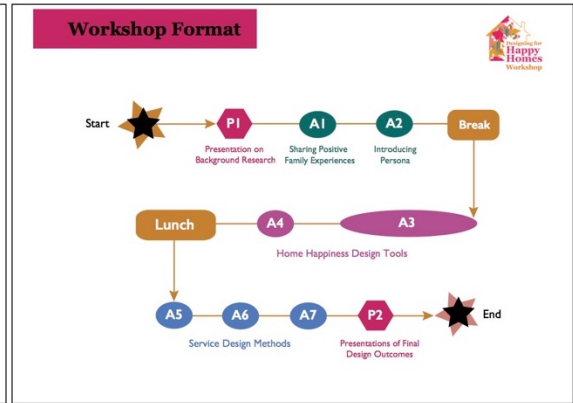
- This final stage allows participants to employ some select service design tools to further develop and elucidate final design concepts to a level that is more practically realised

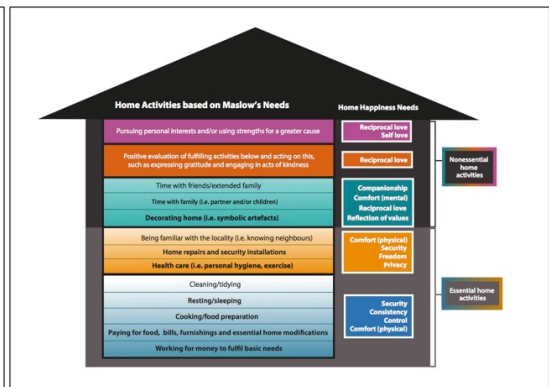
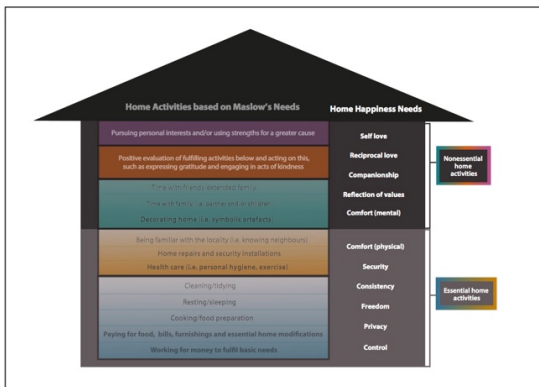
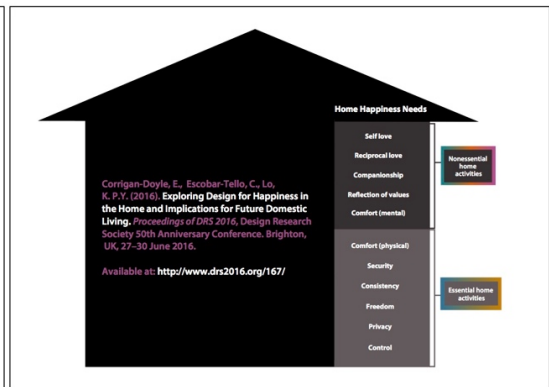
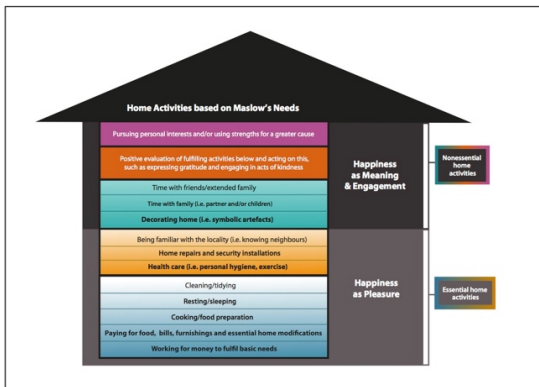
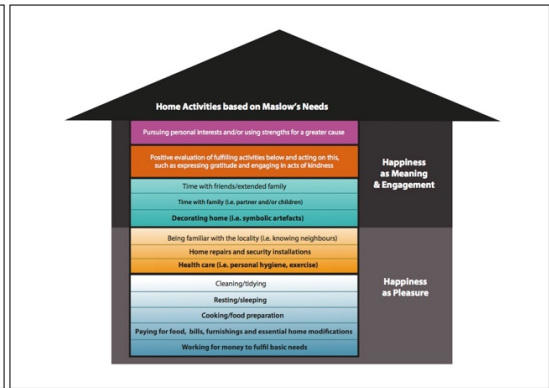
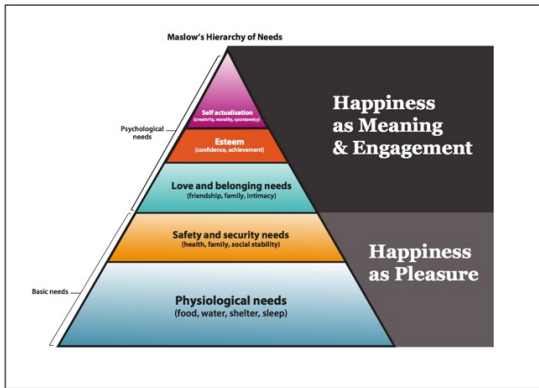
## Appendix AD.

Sample of Slides used in Presentation for Main Studies' Workshops

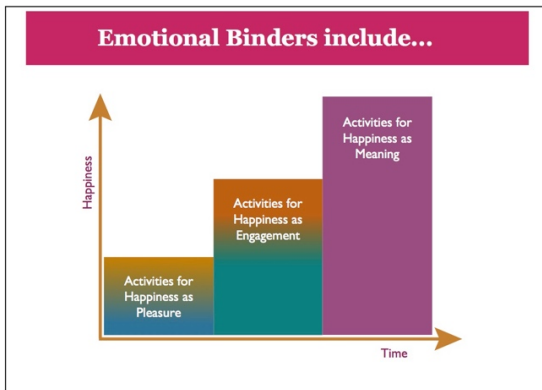
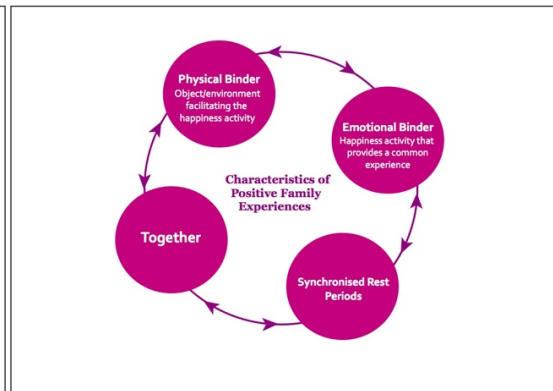
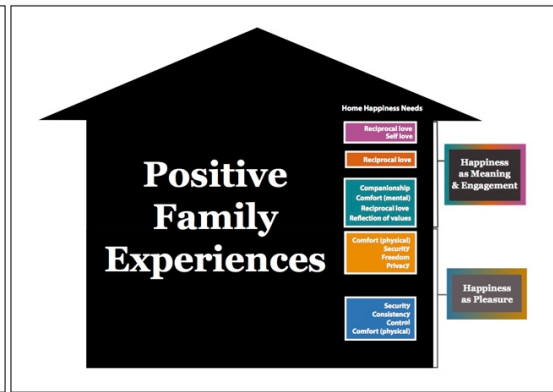
# Designing for Happy Homes Workshop

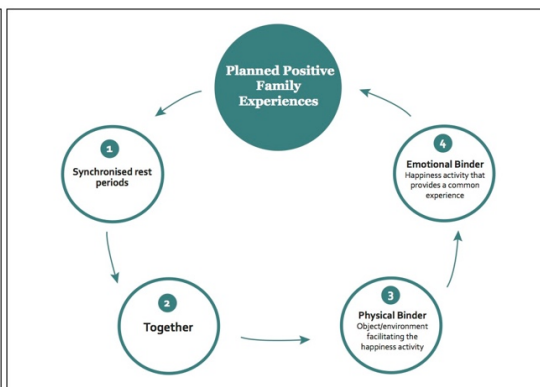
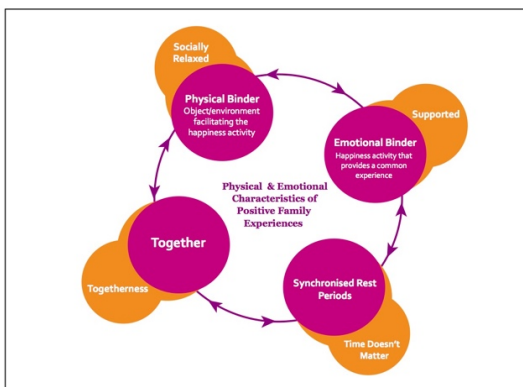
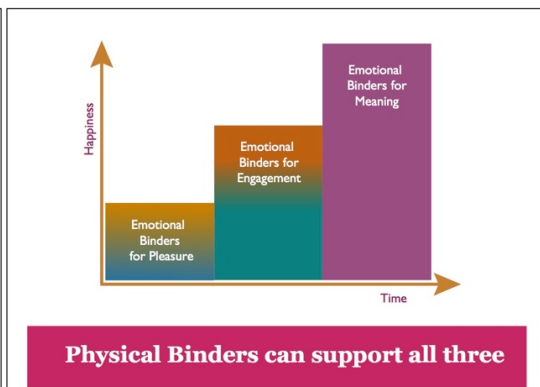
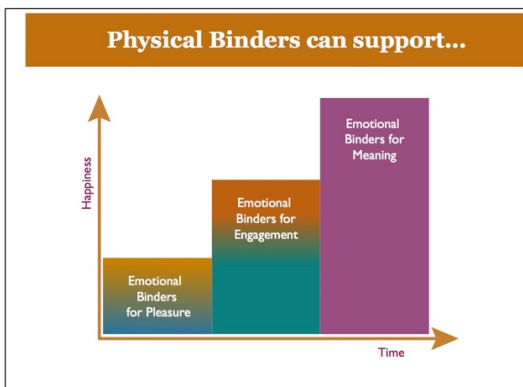
Emily Corrigan-Doyle MEd, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University

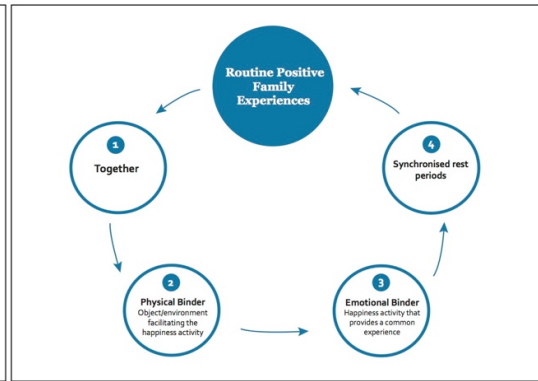
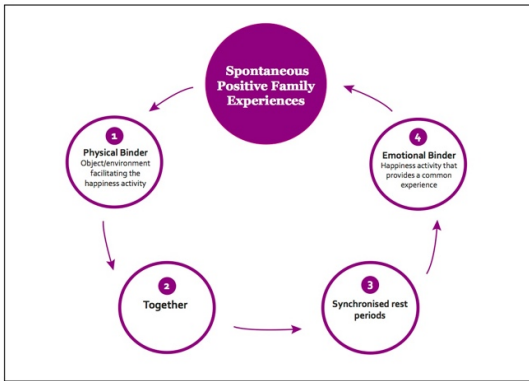











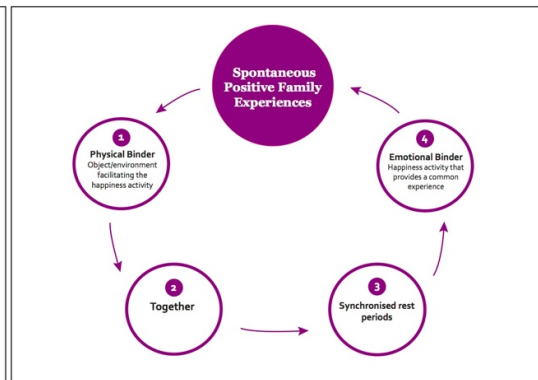


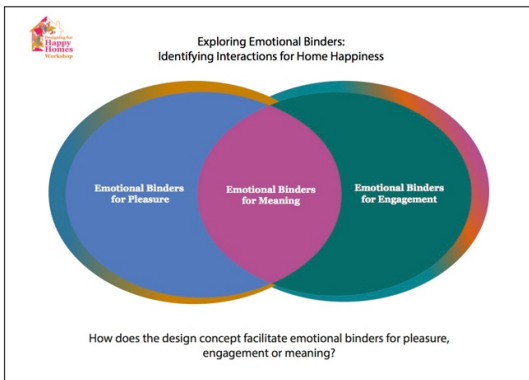
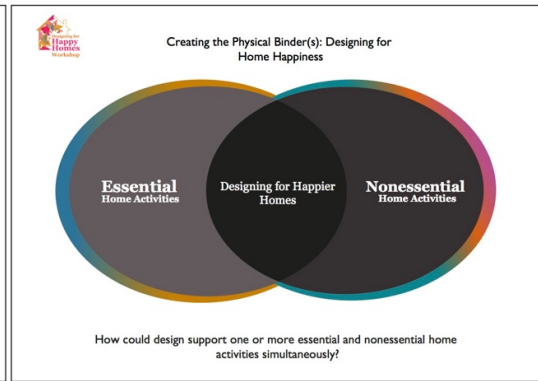
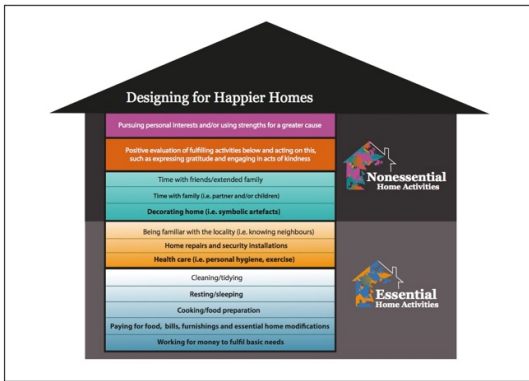
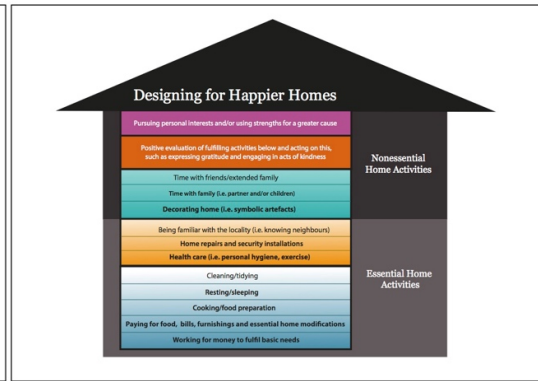
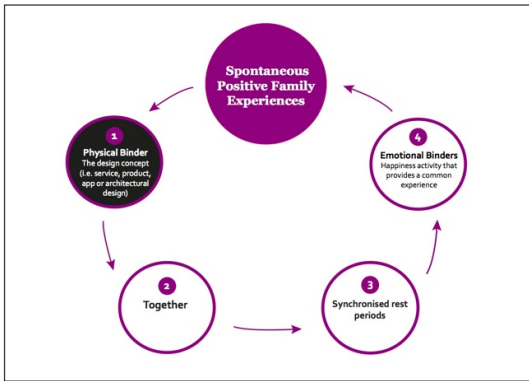


**Sharing Positive Home Experiences**

**Emotional Binder(s)** – What were you doing?  
**Type of Emotional Binder(s)** (i.e. pleasure, engagement and/or meaning)  
 How were you feeling physically and emotionally?

**Physical Binder(s)** – What objects/environments facilitated and/or enhanced your experience?  
**Type of Positive Family Experience**  
 Would you consider this scenario planned, spontaneous, routine or a combination, and why?





**Offerings of Home Happiness Design**

How does the home happiness design differentiate itself from other designs with similar offerings?

Use an internet search to find **comparable existing designs** to your home happiness design concept

What are the **selling points** and/or **limitations** of these existing designs?

What are the **unique selling points** of the home happiness design?



### Stakeholders of Home Happiness Design

Who are the direct and indirect stakeholders for the home happiness design?

Who could the future stakeholders be as the design develops and/or grows?

Stakeholders could include but are not limited to: **employers, creditors, directors, owners/shareholders, the community, society, government and government agencies, suppliers, volunteers and customers/users**



### User Journey of Home Happiness Design

What does the user journey of the home happiness design look like?

How are users informed of the design?

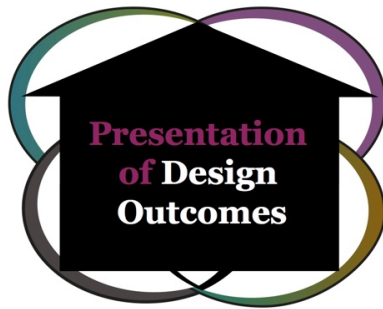
Who are the relevant stakeholders in this?

How do users join, purchase or incorporate this design into their home?

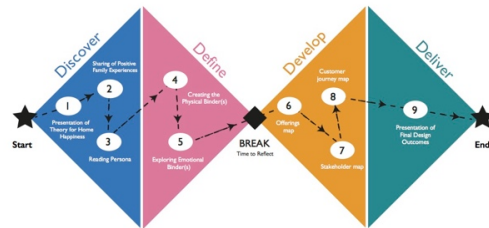
How do users engage with this design as part of their home and/or domestic lifestyle?

Why would users continue to employ this design?

Why would users share or recommend this design to others?



### Overview of Designing for Happy Homes Workshop Using Double Diamond Design Process



Emily Corrigan-Doyle MA, BA, PhD Researcher  
Service Design Mini Centre for Doctoral Training, Loughborough University

## Appendix AE.

Example of Workshop Protocol for Main Study I Workshop

# Designing for Happy Homes Workshop Protocol

**Date:** 25.1.17

**Room:** LDS 2.33

**Time:** 10am – 2.45pm

## Preparation for workshop:

- Book room
- Recruit 6 participants
- Workout layout for room
- Workout timings
- Source materials
- Get ethical clearance
- Send out participant information sheets
- Get consent forms signed (on day)
- Get participant details forms filled out (on day)
- Source snacks and water

## Materials needed:

- Camera x1
- Video & tripod x1
- Dictaphone for each team
- Design Tool 1 Essential and Nonessential Home Activities Cards (ENHAC), one pack per group
- Set of markers, one per group
- Flipchart paper, one per group
- Design Tool 2 Emotional Binder Sheets (i.e. pleasure, engagement and meaning), one set per group
- Design Tool 1 template, one per group
- Design Tool 2 template, one per group
- Offerings template, one per group
- Stakeholder map template, one per group
- User journey template, one per group
- Selection of different colour post-its for each group
- Persona information sheet, one per group
- PDF presentation slides (introduction to workshop, such as concepts of home, happiness, positive family experiences, and workshop format)
- Activity 1 slide – Discussion and sharing of positive home experiences with others, and introduction of persona
- Activity 2 slide – Design Tool 1 (Creating the Physical Binder(s))

- Activity 3 slide – Design Tool 2 (Exploring Emotional Binders)
- Activity 4 slide – Offerings map
- Activity 5 slide – Stakeholder map
- Activity 6 slide – Customer journey map
- Blue tac, one pack per group
- Water, sweets & snacks for table
- Feedback forms for each participant
- Participant details forms for each participant
- Consent forms for each participant

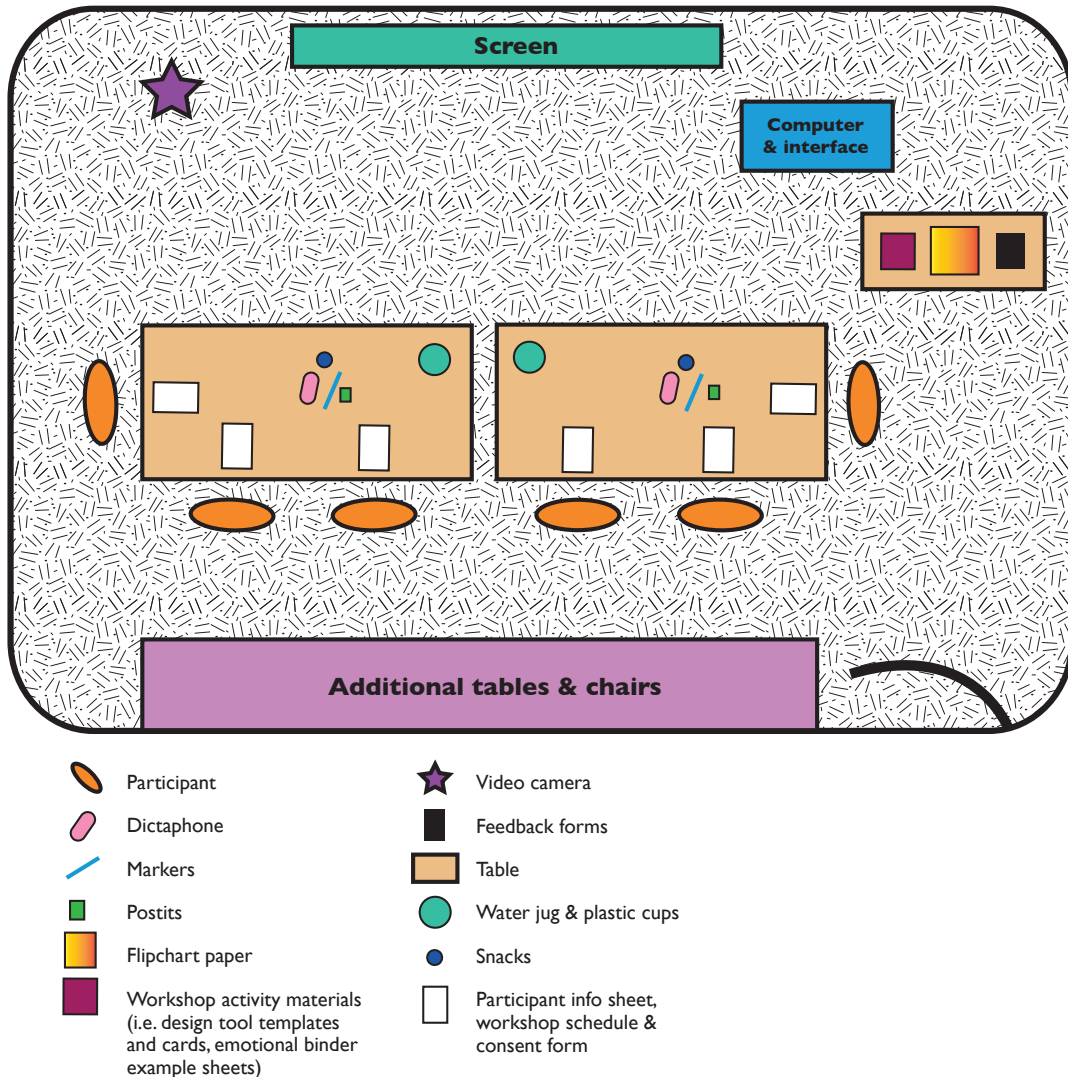
#### Setup of room on the day:

- Jugs of water and plastic cups are set up in the centre of each table
- Consent forms, copies of workshop schedules are placed at each seat around tables
- Markers, post-its are placed in the centre of each team's table
- Workshop activity materials—ENHAC, persona information sheets, design tools—feedback forms and Flipchart paper are placed in separate piles on a table close to facilitator for handing out to groups
- Video and tripod are set up to capture activities on tables
- A Dictaphone is left in centre of each table for each group (with correct setting— lecture)
- PDF Presentation is set up with 1<sup>st</sup> slide on display
- Additional tables and chairs are placed at back of the room

*\*See next page for visual of room layout*



## Room layout:



## Breakdown of Workshop:

### **Introduction part 1 – welcome to workshop (5 minutes)**

1. Participants arrive and are invited into the room at 10am.
2. Participants are welcomed and thanked for agreeing to take part in the workshop.
3. The facilitator introduces herself, invites participants to take some beverages and snacks, and tells them where nearest toilets and exits are.
4. Participants are asked to take a seat and sign the consent forms.
5. The aim, objectives and benefits of the workshop are communicated:

*“This workshop will use and test new tools for designing for home happiness to explore and create relevant concepts for happy and sustainable lifestyles. In particular, we will be focusing on creating design interventions that support long-term home happiness through the facilitation of positive family experiences in this context. This workshop has developed from research investigating how art therapy techniques can be used with service design approaches to design for home happiness”*

*“I hope that you will find this experience enjoyable and that it will provide you with inspiration to create designs for long-term happiness and more sustainable practices, using home as a case study.”*

6. Format of the day is discussed (next slide – visual of day’s format on-screen)

### **Introduction part 2 – Presentation on background research and concepts (20 minutes)**

Presentation is given on concept of happiness, home, positive family experiences, emotional and physical binders for pleasure, engagement and meaning, and their relevance for design and future sustainable lifestyles (next slides).

### **Introduction part 3 – Time for Questions (10 minutes)**

#### **Activity 1 – Sharing of positive home experiences with others (25mins)**

1. Activity 1 slide is put on display.
2. The video recorder and Dictaphone are switched on.
3. Participants are invited to one-by-one introduce themselves and share their reflections on positive home experiences with others, using the slide on display for guidance.

#### **Activity 2 – Introduction of persona (5mins)**

Following this, the facilitator introduces the persona and provides each team with an information sheet, allowing 5 minutes for reading before moving on to the next activity.

**\*\*\* Break (15 minutes) \*\*\***

#### **Activity 3 – Creating the Physical Binder(s): Designing for Home Happiness (55 minutes)**

1. Activity 3 slide is exhibited.
2. The facilitator introduces Design Tool 1 (i.e. template, ENHAC), suggesting how its materials might be used.
3. Each team is given a copy of Design Tool 1.
4. Participants are left to work with this for approximately 55 minutes.

#### **Activity 4 – Exploring Emotional Binders: Identifying Interactions for Home Happiness (15 minutes)**

5. Activity 4 slide is positioned on screen.
6. The facilitator offers Design Tool 2 (i.e. template, Emotional Binder Sheets) to each team and advises them on how it can be employed.
7. Participants allocated approximately 15 minutes to explore this tool.

**\*\*\* Lunch Break (1 hour) \*\*\***

#### **Using Service Design Tools to Formalise Design for Home Happiness Concepts (45 minutes in total)**

##### **Activity 5 – Offerings Map (20 minutes)**

1. Activity 5 slide is placed on display.
2. The facilitator gives out the offerings map template to each team.
3. Participants are asked to spend 15 minutes researching similar pre-existing designs to their developing concepts to identify their unique selling points.

##### **Activity 6 – Stakeholders Map (10 minutes)**

1. Activity 6 slide is exhibited on screen.
2. Participants are provided with the stakeholder map template to guide brainstorms of direct, indirect and possible stakeholders for their home happiness design.
3. They are given a time allowance of roughly 15 minutes to conduct this.

##### **Activity 7 – Customer Journey Map (20 minutes)**

1. The slide for Activity 7 replaces the previous one.
2. Each team receives the customer journey map template from the facilitator to begin conceptualising how potential users would find out and begin interacting with their design solutions.
3. Participants within each team are asked to work together on this task for 20 minutes.

##### **Presentation of Final Design Outcomes (20 minutes)**

Participants are asked to showcase their final design concepts and share the process they followed using results from the design tools supplied.

##### **Wrapping up (5mins)**

Participants are thanked for their time and given feedback forms to fill out.

## **Purposes of Each Activity:**

### **Activity 1 & 2 – Sharing of Positive Home Experiences and Introduction of Persona**

- To provide an ice breaker activity for participants to feel more relaxed around each other
- To enable participants to draw connections between home happiness concepts presented and their own real-world experiences, improving understanding and engagement with the theory
- To initiate reflection on design's role or possible roles in home happiness and sustainable lifestyles

### **Activity 3 – Creating the Physical Binder(s): Designing for Home Happiness**

- To allow participants to begin brainstorming how design could collectively support multiple essential and nonessential home activities

### **Activity 4 – Exploring Emotional Binders: Identifying Interactions for Home Happiness**

- To initiate reflection on how the design concept facilitates and/or emphasises emotional binders for pleasure, engagement and meaning
- To create a better understanding of how emotional binders for pleasure, engagement and meaning differentiate or relate to each other

### **Activity 5 – Offerings Map**

- To locate and organise similar pre-existing designs and their selling points
- To employ insights from the previous activity (Activity 4), such as emotional binders supported by the home happiness design, and identify the value/offerings of the home happiness design in comparison to pre-existing designs.

### **Activity 6 – Stakeholder Map**

- To identify relevant parties needed to orchestrate the design concept and possible individuals that could be influential in this.

### **Activity 7 – Customer Journey Map**

- To compile results from previous Activities 3 to 6 by composing the overall customer journey, including how the design proposition is advertised, purchased/joined, interacted with, why it is continued to be used and recommended to others.
- To evaluate the strengths and weaknesses of the home happiness design, determining whether the concept warrants further development and realisation.