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Community repair: enabling repair as part of the movement towards a circular economy

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Community repair:
enabling repair as part of the movement towards a circular economy

Report written by Dr Christine Cole and Dr Alex Gnanapragasam, Nottingham Trent University, in collaboration with Ugo Vallauri, The Restart Project, and Prof Tim Cooper, Nottingham Trent University, March 2017.

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Collaboration statement

The work outlined in this report is the result of a collaboration between The Restart Project, London and Nottingham Trent University. The research was undertaken as part of a project commissioned to Restart by the East London Waste Authority. The Restart Project identified areas they wished to investigate and suggested survey questions on these areas. The researchers at Nottingham Trent University then provided feedback on these survey questions and suggested additional questions for The Restart Project. The Restart Project took responsibility for compiling the survey and the collection, collation, coding and checking of the survey responses. The researchers at Nottingham Trent University reviewed and provided an initial analysis of the data provided by The Restart Project.

The work for this report undertaken by Dr Christine Cole and Dr Alex Gnanapragasam was funded by the EPSRC-funded Centre for Industrial Energy, Materials and Products (grant reference EP/N022645/1).

Executive summary

Repair in the context of the circular economy

The growth in sales of household electrical and electronic equipment in recent years, combined with faster product obsolescence, has resulted in waste electrical and electronic equipment becoming the fastest growing waste stream globally (Baldé, Wang, Kuehr, & Huisman, 2015). Many products develop simple faults which are challenging for the amateur to repair; this quite often results in replacement products being purchased and equipment with small faults being disposed of, or hoarded (Green Alliance, 2015; WRAP, 2011a).

It is within this context that innovative approaches to repair are emerging in the UK, with community-based organisations focused on enabling consumers to attempt to repair a variety of products including clothing and electrical equipment. Access to information, spare parts and tools is being made available by companies like iFixit, providing consumers with the resources they need to attempt their own repairs. Some consumers, however, lack the skills, knowledge or confidence to attempt repairs, even when the resources are available. This report focuses on the work of the London-based Restart Project, who organise community-based pop-up repair events to assist these consumers. Volunteers acting as "Repair Coaches" at these Restart Parties offer support and guidance to participants, enabling them to attempt to repair items that they may not have had the knowledge, skills or confidence to undertake previously.

This report presents the findings from a survey with 99 participants undertaken at Restart Parties in late 2016. Key points to emerge are:

- Many people (45%) cannot name a commercial repairer that they trust. The lack of knowledge of existing repair ventures and lack of trust in commercial repairers is a key issue to address.
- Very few respondents were “extremely” confident in undertaking repairs at home (8%), many more were “somewhat” or “moderately” confident (33%) and 48% were only “slightly” or “not at all” confident.
- Many of the respondents reported that they have previously attempted some kind of repairs at home (56%). However, they report varying levels of success with previous repairs and cite knowledge, skills and confidence as major barriers to further attempts at repair. It is these very barriers that The Restart Project addresses.
- Respondents report that they are avid seekers of reuse options for their products when they no longer require them, with 82% reporting they looked for people to reuse items they no longer had a use for.
- Small electrical and electronic items were not recycled by as many of the respondents as other types of household items. The Restart Project appears to have a role to play as ‘environmental educator’ in inspiring additional recycling within the community.

Throughout the research, participants said they particularly valued the social aspect of the Repair Parties. Feedback shows that there are high satisfaction levels with the events, even when repairs to the objects participants have brought along have been unsuccessful. Working in a social environment, meeting others with shared interests and learning or passing on repair skills in this way appears to offer considerable potential to empower communities to attempt repairs and thereby extend the lifetime of products.

The repair network is complex and fragmented. Availability, location and consumer confidence in local repair networks, together with knowledge and skills are key issues that have emerged from this study.

Informal community-based enterprises such as The Restart Project appear ideally placed to develop local responses to the gap in trust of existing networks revealed by this research, and they have an important role to play in contributing to the circular economy.

Contents

Collaboration statement 3
Executive summary 4
Contents 6
List of figures 7
List of tables 7
Introduction 8
The Restart Project 9
Research outline 10
Sample characteristics 11
Survey findings 12
Commercial repair 12
Repair knowledge, skills and confidence 12
Community 13
Recycling and waste 14
Reuse 15
Conclusion 16
References 17
Supporting information 19
Infographic 28

List of figures

Figure 1 Level of education of participants surveyed at Restart Parties (n=99). 19
Figure 2 Social grade of participants surveyed at Restart Parties (n=99). Comparison made to the social grade profile of the UK population as outlined by the National Readership Survey (UK, NRS). 19
Figure 3 Participants' responses when asked to name a commercial repair service that they trust (n=99). 20
Figure 4 Participants who have previously undertaken repairs at home (n=99). 20
Figure 5 Rate of success of participants who have undertaken repairs previously at home (n=55). 21
Figure 6 Reasons for not attempting repair in the past (n=33). 21
Figure 7 Participants' level of knowledge and skills with regards to repair (simple breakdown of results) (n=99). 22
Figure 8 Participants' level of knowledge and skills with regards to repair (detailed breakdown of results) (n=99). 22
Figure 9 Participants' level of confidence in their ability to repair at home (simple breakdown of results) (n=99). 23
Figure 10 Participants' level of confidence in their ability to repair at home (detailed breakdown of results) (n=99). 23
Figure 11 Participants' levels of recycling (n=99). 24
Figure 12 Materials recycled by participants (n=99). 25
Figure 13 Participants' responses to what they do with products they no longer use (n=99). 25
Figure 14 Participants who look for people who can reuse their products when they no longer require them (n=99). 26
Figure 15 Participants' responses to how often they seek out second-hand products (n=99). 26
Figure 16 Types of used/ second-hand equipment that participants seek out (n=68). 27

List of tables

Table 1 Location and date of Restart Parties included in this research. 10
Table 2 Cross tabulation of participants' confidence (rows) and level of knowledge and skills (columns) with regards to repair (n=99). 24

Introduction

The number of electrical appliances and devices in UK households tripled between 1970 and 2002 (Energy Savings Trust, DECC, & DEFRA 2012), and continues to grow. Consumer demand for the latest electrical and electronic equipment sees many products replaced before they are broken (Cooper, 2004; Curran, 2010; WRAP, 2011b). Additionally, a large proportion of discarded consumer electronics are inappropriately disposed of through the residual waste stream and are destined for landfill or incineration (WRAP Cymru, 2016). This represents a missed opportunity for recovery by repair or reuse, both of which are preferable in the context of the high levels of embodied carbon and valuable materials these discarded products contain (Minx et al., 2009).

The prevalent economic model in the UK encourages the linear use of resources, in which we take materials, make products and dispose of these products at the end of their life. This 'take, make, dispose' model is unsustainable and in order to ensure resource security and standards of living into the future, we must transition to a circular economy where resources are used more efficiently, in part by extending product lifespans. Recent efforts to move towards a more circular economy have seen policies and processes focussed on recycling and on disposal options at the lower end of the waste hierarchy (Ellen Macarthur Foundation, 2015).

The EU's action plan for the circular economy emphasises the importance of repair in achieving resource security and sustainability (European Commission, 2016) and switches the focus towards waste reduction and reuse, the options at the top of the waste hierarchy. The UK Government recognises the value of repair as part of a waste reduction strategy, and the devolved governments of Wales and Scotland have signalled strong backing for practical actions that improve both resource efficiency (Welsh Government, 2009, 2013) and encourage a move towards a circular economy, with repair and "making things last" (Scottish Government, 2016). Product longevity, enacted through design, repair and reuse, is a central consideration of circular economy thinking (Cooper, 2010a, 2010b).

Repair is a collectively beneficial activity that improves resource security (King, Burgess, Ijomah, & McMahon, 2006; Oakdene Hollins, 2013). Repair also brings additional benefits to the economy through increased demand for skilled labour. The economics of repair are, however, an important consideration. For most consumers repair is now only an option for high cost items such as cars and personal computers, or for household fixtures such as heating systems.

The ability to repair goods is key to maintaining the functionality of products (Stahel, 2010) and delaying, or avoiding, their disposal. This report focuses on non-commercial repair, in particular the activities of a community-based group. Such groups are an important part of civil society (Bailey, 2012) and are recognised to provide innovative solutions to environmental problems (in this case waste reduction) (HM Government, 2013). These organisations offer significant, but currently small scale, opportunities for repairing electrical and electronic equipment and other products (Charter & Keiller, 2014, 2016).

The growth of the Repair Café movement in Western Europe in recent years signals the interest that consumers have in repairing items. There is very little data on the reasons consumers choose to join in these organised activities and whether they are primarily for economic, environmental or social reasons. This report presents findings from preliminary research carried out at a number of Restart Parties. These pop-up repair events were organised by The Restart Project at venues across London during late 2016.

The Restart Project

The London-based Restart Project is one example of a community-based repair initiative that has established a forum for motivated individuals to attempt repairs to extend the working lifetime of a variety of items, concentrating primarily on the repair of electrical and electronic equipment and promoting awareness of recycling routes for items they find to be unrepairable.

Restart do not charge a membership fee, and admission to the events they organise is also free. Their aim is simply to enable repair to help extend the lifetime of electrical and electronic equipment and reduce the number of these items that become waste. By providing a place where people can meet, the organisation facilitates repair by sharing information, signposting to tools, spare parts, “open source” instructions, teaching repair skills and communicating the value of repair rather than replacement.

Restart also acts as an education tool: through a variety of media channels they distribute information, raising awareness about the environmental impacts of end-of-life products and signposting those with unsuccessful repairs to recycling schemes for electrical items, encouraging people to “do the right thing” rather than placing items in waste collections destined for landfill disposal or incineration. For this reason, The Restart Project has received support and financing for their work from several Local Authorities who recognise the importance of its work as part of their waste reduction strategies.

Research outline

The Restart Project organises Restart Parties, regular pop-up repair events, within the community at a variety of different venues across London. The research reported on here was undertaken at Restart Parties held between September and November 2016, these are listed in Table 1.

Table 1 Location and date of Restart Parties included in this research.

Borough	Date	Restart party participants	Survey participants (percentage of total party participants)
Havering	10/09/2016	23	5 (22%)
Hackney	17/09/2016	33	1 (3%)
Camden	22/09/2016	18	4 (22%)
Newham	08/10/2016	12	4 (33%)
Kingston	18/10/2016	18	3 (17%)
Islington	22/10/2016	30	7 (23%)
Croydon	26/10/2016	7	7 (100%)
Walthamstow	29/10/2016	16	5 (31%)
Canning Town	02/11/2016	16	6 (38%)
Westminster	05/11/2016	24	9 (38%)
Sutton	09/11/2016	10	3 (30%)
Tooting	12/11/2016	35	4 (11%)
Romford	16/11/2016	20	13 (65%)
Merton	19/11/2016	12	7 (58%)
Greenwich	23/11/2016	11	8 (73%)
City of London	26/11/2016	34	13 (38%)

A survey was designed posing both open-ended and closed questions to collect both qualitative and quantitative data on the following issues:

- Knowledge of existing commercial repair networks
- Attitudes and behaviour towards the repair of household electrical and electronic equipment
- Previous attempts at repair
- Levels of repair knowledge and skills
- Levels of confidence in attempting repairs at home
- Experiences of repair relating to the item taken along to the repair event
- Satisfaction with both the repair and the event they had attended
- Attitudes to the reuse of electrical and electronic items
- Recycling and reuse behaviour

Emphasis was placed on exploring personal attitudes and behaviour patterns of the people surveyed in relation to repair activities and experiences, and, additionally on exploring recycling and reuse behaviours.

The research enabled an exploration of the motivations to attend a grassroots community event enabling do-it-yourself repair rather than opting to pay for repair services and investigated barriers and challenges to repair amongst consumers with broken items.

During the study period (10/09/2016 - 26/11/2016), 319 people attended Restart Parties. Of the total number of attendees, 99 (31%) participated in the survey. Surveys were undertaken at each event outlined in Table 1. Attendees were invited to complete a survey and did so in the following manner:

- Completed the questionnaire on a tablet provided by Restart Party staff
- Completed the questionnaire on paper provided by Restart Party staff
- Completed the questionnaire by answering questions verbally posed to them by Restart Party staff

It should be recognised that the findings outlined in this report represent the views of participants who were self-selected and had time to complete the survey. Nevertheless, it is important to examine the experiences and attitudes of these people, who, by virtue of attending repair events, are expressing an interest in prolonging the lifetime of their products and thus contribute towards the transition to a circular economy at a grassroots level.

The data was collected, collated, coded and checked by Restart Party staff. This report presents findings from initial data analysis undertaken by researchers at Nottingham Trent University. Figures and tables referred to below can be found at the back of this report (see **Supporting information**).

Sample characteristics

Gender: Female 57%, male 34%, not recorded 9%.

Age range: 18-24 years 4%, 25-44 years 33%, 45-64 years 26%, 65+ years 16%, not recorded 21%.

Education: No formal education 1%, below degree level 30%, degree level and above 53%, not recorded 16% (Figure 1).

Social grade: AB (Higher and intermediate managerial, administrative and professionals) 17%, C1 (Supervisory, clerical and junior managerial, administrative and professionals) 18%, C2 (Skilled manual workers) 0%, DE (Semi-skilled and unskilled manual workers, and state pensioners, casual and lower grade workers, unemployed with state benefits only) 56%, not recorded 9%. (Figure 2).

Financial situation: ‘comfortable’ 36%, ‘manageable’ 19%, ‘tight’ 11%, ‘struggling’ 4%, not recorded 30%.

Survey findings

Commercial repair

The survey data produced a range of narratives describing difficulties obtaining repair services. A key point to emerge is that many people (45%) cannot name a commercial repairer that they trust, with a further 10% saying they had no need for a commercial repairer (Figure 3). Reasons behind this varied, with some respondents expressing a preference for a new purchase rather than paying for a repair service:

"Electricals and appliances are getting cheaper. I would rather replace than repair."

"I never tried, I just buy new. Repairs did not really work."

Some of the respondents appeared to lack trust in commercial repair networks:

"This is the problem. I do not really trust them. Sometimes they are overpriced."

"I do not altogether trust any of them. I feel at their mercy."

Other participants were unable to name anywhere they could go for a commercial repair:

"You are forced to go back to the manufacturer and that is very expensive."

"No, they just do not exist. About five years ago the last one might have disappeared."

Of those who could name a commercial repairer they could trust, the responses were evenly split between large retailers and brands and small independent repairers. A much smaller number of respondents named an online commercial repair business:

"I normally go to the dealers, Currys or John Lewis. We have not used them but this is where we would go. Domestic and General [insurance company] give extended guarantees. Repair is not worth the cost."

"Just individual repair persons, difficult to find, word of mouth really."

Community groups such as The Restart Project appear well placed in the community to respond to both the lack of trust and knowledge of commercial repair networks. Restart state:

"We are trusted because we are not selling anything"

Repair knowledge, skills and confidence

Over half (56%) of participants stated that they had previously attempted to undertake repair work at home (Figure 4). Of those who had attempted the repair of small electrical and electronic equipment at home, 87% reported that they had always been, or sometimes been, successful, with only 13% claiming they have had no success with their own repairs (Figure 5). However, some of the repairs described by participants included relatively simple tasks such as changing fuses. Restart Parties aim

to help participants who have conducted these simple repairs to stretch their knowledge and skills, and improve their confidence through the facilitation of more complex repairs.

The participants who had not undertaken repairs at home stated the main reasons were “lack of knowledge and skills”, “confidence and fear”, and “motivation” (Figure 6). Restart Parties enable participants who have not previously attempted repairs, or who have been unsuccessful in repairing at home, to undertake repairs in a supportive environment. Restart’s volunteers aim to share their knowledge, experience and confidence with participants, empowering them to undertake repairs and overcome some of the aforementioned barriers.

Participants were asked about their level of knowledge and skills, and confidence with regards to undertaking repair at home. Eighteen percent reported that they had no knowledge and skills, while 68% stated they had some knowledge and skills, ranging from basic to expert (Figure 7, Figure 8). Similarly, 24% of participants reported that they had no confidence in their repair abilities at home, and 65% reported that they had some level of confidence, from slightly to extremely (Figure 9, Figure 10). Results from the survey suggest there may be a relationship between knowledge and skills, and confidence which would merit further investigation (Table 2).

Restart Parties present opportunities to increase people’s knowledge and skills, and confidence in repair in a supportive environment. Where barriers exist such as lack of knowledge on how to acquire documentation, spare parts and tools, Restart can signpost and support participants at every stage of the repair. In addition, Restart’s focus on facilitating repair, as opposed to conducting the repair on behalf of its participants, enables it to play an instrumental role in raising people’s self-confidence in their own repair abilities.

Community

In addition to the benefits to individuals’ repair knowledge, skills and confidence, Restart Parties have social and community aspects which raise the profile of repair.

An important part of The Restart Project’s work is the social aspect as the events take place at the heart of the community, providing a friendly place to go to for help with a repair:

“I wanted to find out what was wrong with my hoover and now I know. The mix of people is fascinating and interesting, seniors and young students.”

Providing local repair events in a welcoming, social environment addresses both the confidence issues people have when faced with repairing an item themselves, but also addresses trust issues people may have with existing commercial repair networks. Restart Parties were described as encouraging, welcoming (and importantly for some) not selling anything:

“I like that people are here to help with no commercial purpose.”

This appears to inspire trust amongst attendees and quite often people responded that they were happy with the events, even if they have had an unsuccessful repair experience:

“It’s a fantastic idea as I am keen to repair and recycle. Unfortunately, this item was unrepairable.”

The Restart Project offers a forum for both people new to repair and those with some repair experience to learn or advance skills that will enable a repair. It provides an environment which gives people the confidence to attempt repairs:

"It is very useful because if you only have basic knowledge, here you find people with more expertise."

Access to information, a recognised barrier to repair, is addressed at an early stage when people engage with Restart. Restart Party attendees are helped to source information to assist with repairs. This may be an instruction booklet, diagram or schematic, often using open source materials accessed via web sites or online repair platforms. Whilst allowing repair of the item brought to the event, this is also an enabling action for future repairs. Attendees are shown where to source information so that they could, if they felt confident enough, proceed with maintenance or a future repair on their own. Participants indicated that they were taught skills that enabled them to solve small software-related problems and this allows them to continue using devices without seeking further help:

"Nothing is fixed, I just got advice."

The primary motivation for attending Restart Parties is typically the need to repair something, but the social, community aspect associated with the events improves confidence levels whilst also providing attendees with new skills and knowledge which in future may enable them to attempt further repairs.

"Very happy that people are trying even if our problem is not solved."

With a high proportion of the participants (56%) having previously attempted to repair items (Figure 4), with varying degrees of success, an event such as those organised by The Restart Project offers participants the opportunity to inspire each other to continue with repair activities.

Recycling and waste

When questioned about their recycling practices, 46% of respondents claimed that they recycle "everything that can be recycled" and 32% that they recycle "a lot, but not everything they could" (Figure 11). However, it should be noted that pro-environmental behaviour is often over-reported (Axelrod & Lehman, 1993; Timlett & Williams, 2007). Furthermore, whilst claims of recycling behaviour were relatively high amongst the participants, this is not true for all types of recycling. Unsurprisingly, the most commonly collected materials were paper and cardboard, glass, tins and cans, and plastics (83 – 90% of participants) but ,only 55% of participants claimed to recycle electrical and electronic equipment (Figure 12). The difference may be for a variety of reasons, including the availability and awareness of collection services and local collection points lack of understanding of the importance of recycling electrical and electronic products.

The findings with regards to the recycling of small electrical and electronic equipment appear to support work carried out by WRAP (2016) revealing confusion among the general public on local authority provisions for recycling these items. Participants' lack of understanding is also illustrated in their responses to what they would do with unwanted electrical and electronic items; with 1 in 4 stating they would "throw it away", making no reference to the possibility of recycling (Figure 13). It is particularly significant that participants are attending an event to seek help with repairing items but do not seem to have a high level of understanding about the issues of end-of-life electrical and electronic items and the importance of their correct disposal.

If repairs are unsuccessful, or not possible, The Restart Project provides information on the safe disposal or recycling options; this is also available to a wider audience through the Project's website. Restart say:

"We want people to do the right thing at the disposal stage if an item cannot be repaired."

These findings suggest that The Restart Project has a role to play as 'environmental educator'. The work undertaken in collaboration with local authorities in and around the London area positions them to tailor recycling and disposal information to the local audience, informing them about location-specific provisions for appropriate recycling, reuse and disposal of electrical and electronic equipment.

Reuse

The survey also sought to gauge participants' perspectives on the donation and acquisition of second-hand products, because increasing reuse of electrical and electronic equipment is ultimately preferable to recycling in dealing with these products at the end of their (first) life. The majority of participants (82%) stated that they make every effort to pass on usable products when they no longer require them (Figure 14).

However, this willingness to donate unwanted items is not matched by their own willingness to seek out second-hand electrical and electronic equipment, with only 12% stating they always seek out second-hand goods and 29% affirming that they would never look to buy such goods (Figure 15). Of the respondents who said they had at least some interest in purchasing second-hand products, there were similar levels of interest across a range of product categories (Figure 16).

Respondents named a variety of different routes they have for passing on usable electrical and electronic items that they still have no use for (Figure 13). These include selling items, and gifting them to family and friends, to charity shops, or via online platforms to members of the local community (Freecycle etc.). The willingness of participants to pass on unwanted items for little or no payment may be a reflection of the low-value they assign to them. However, it may also reflect participants' perceived difficulties in reselling the items, or the perceived lack of convenience. Further research is needed to clarify the reasons for these findings. Nevertheless this study illustrates a potential role for The Restart Project in informing, educating and empowering people to unlock the value of their unwanted items.

Conclusion

The current linear economic model of 'take, make, dispose' is unsustainable and there is a need to move to a more circular economy focussing on the efficient use of resources and extending product lifetimes. In order to do so, a comprehensive and trustworthy repair economy is required.

The European Commission's (2016) Circular Economy Package recognises repair as integral to achieving resource efficiency. Community responses are emerging that present opportunities for interested individuals to work together at a local level to facilitate repair, passing on repair skills and raising awareness of repair as an alternative to replacement.

The Restart Project has much to contribute to raising the profile of community repair, firstly in terms of addressing waste by helping to facilitate repairs that enable products to remain in use for longer, but also in terms of environmental education regarding reuse and recycling options for products. These events contribute to waste reduction, for which they get some Local Authority support. They also provide meeting places for people to share and learn repair skills and socialise.

Community ventures such as The Restart Project offer small scale opportunities for repairing electrical and electronic items, prolonging the use phase and thus extending product lifetimes. The lack of knowledge of existing repair ventures and lack of trust in commercial repairers among the general public is a key issue to address. However, this provides an opportunity for a potential growth in non-commercial repairs and community focused groups, which could also have local environmental and social benefits.

There are significant limitations to this research: the sample size was relatively small and respondents were participants at Restart Parties and are therefore already actively seeking a repair for an item. Whilst recognising these limitations, the research has been able to point to relevant areas for further study and provide recommendations to remove barriers to repair activities:

- Raise consumer awareness and confidence in existing commercial repair provision.
- Work with businesses and local authorities to create more opportunities for consumers to learn and practice repair skills.
- Work with local authorities to make Restart participants aware of local recycling and appropriate waste collection provisions for electrical and electronic equipment.
- Campaign for policy reform to address barriers to repair such as the availability of spare parts, tools and instructions.
- Campaign for policy reform to support design for repairability and disassembly.
- Raise consumer awareness of the importance of repairing and purchasing second-hand electrical and electronic equipment in efforts to tackle climate change and resource security.

Extending product lifetimes by enabling repair is an essential part of a movement towards a people-centred, resource efficient circular economy. In addition to directly facilitating repair, community-based groups have a role to play in raising awareness amongst members of the public and campaigning to promote policies that would improve product repairability, promote design for repair and improve access to spare parts, specialist tools and information. Product repair is an important part of slowing consumption and breaking the take, make, dispose linear economy.

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Supporting information

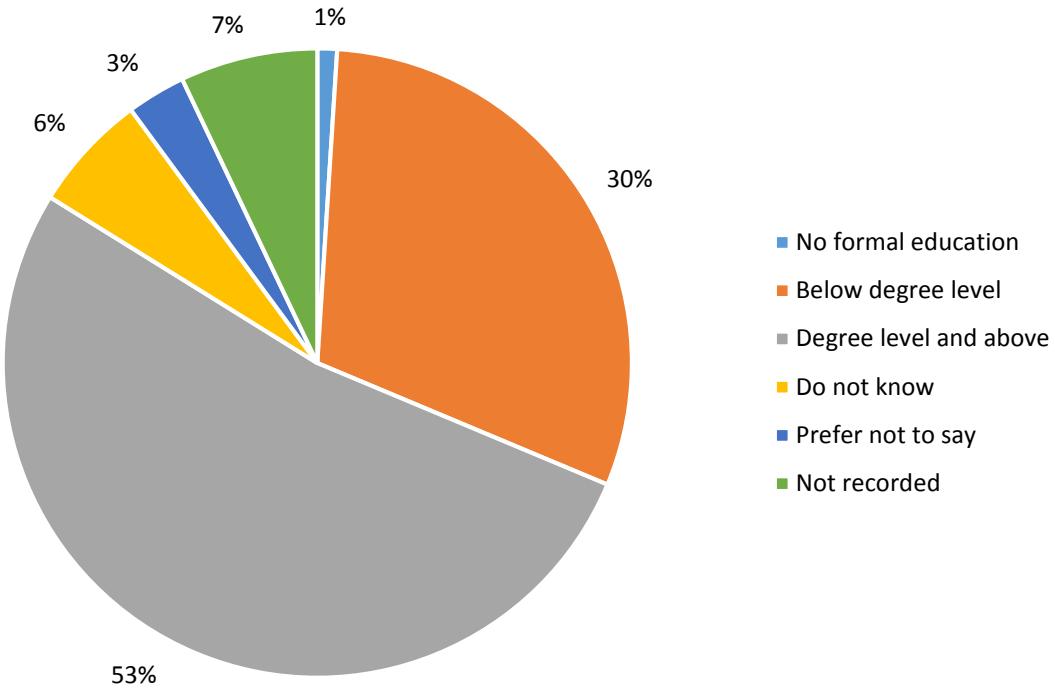


Figure 1 Level of education of participants surveyed at Restart Parties (n=99).

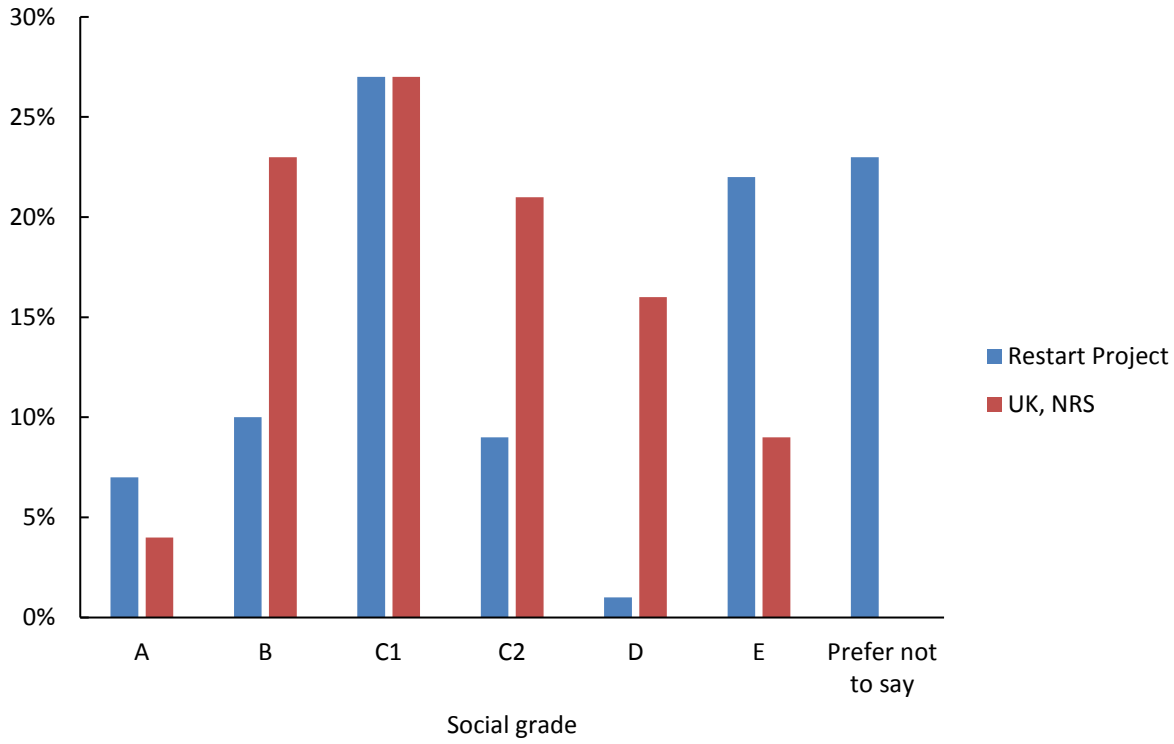


Figure 2 Social grade of participants surveyed at Restart Parties (n=99). Comparison made to the social grade profile of the UK population as outlined by the National Readership Survey (UK, NRS).

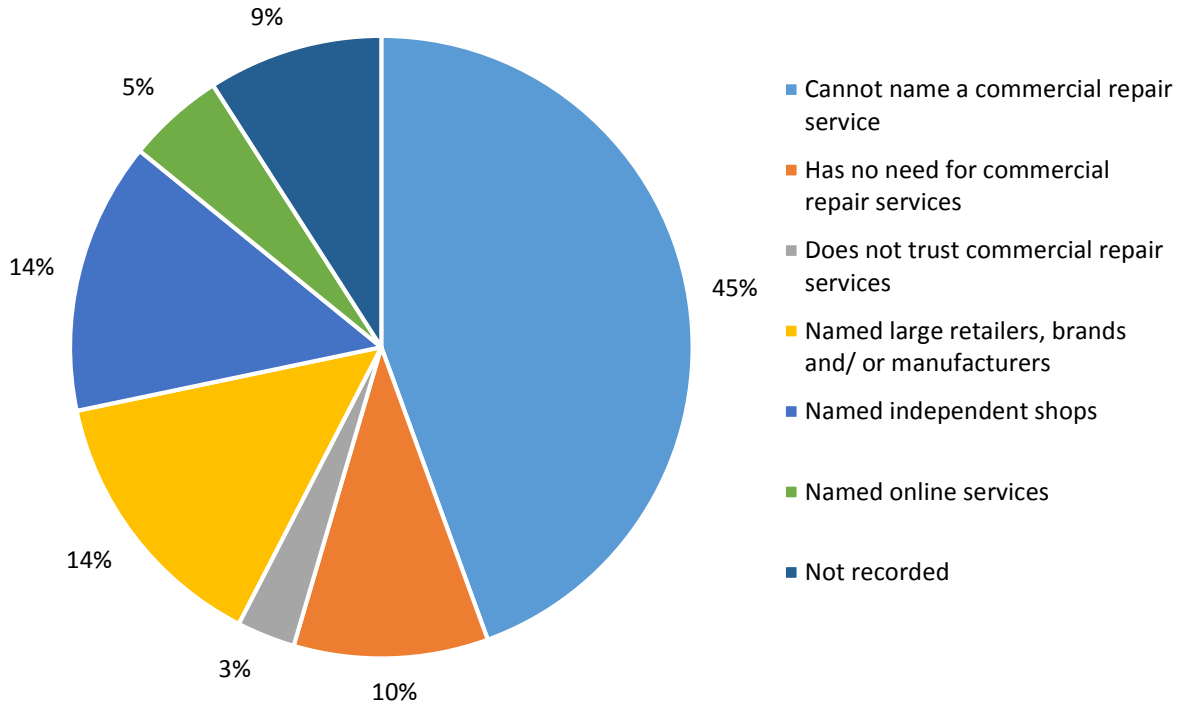


Figure 3 Participants' responses when asked to name a commercial repair service that they trust (n=99).

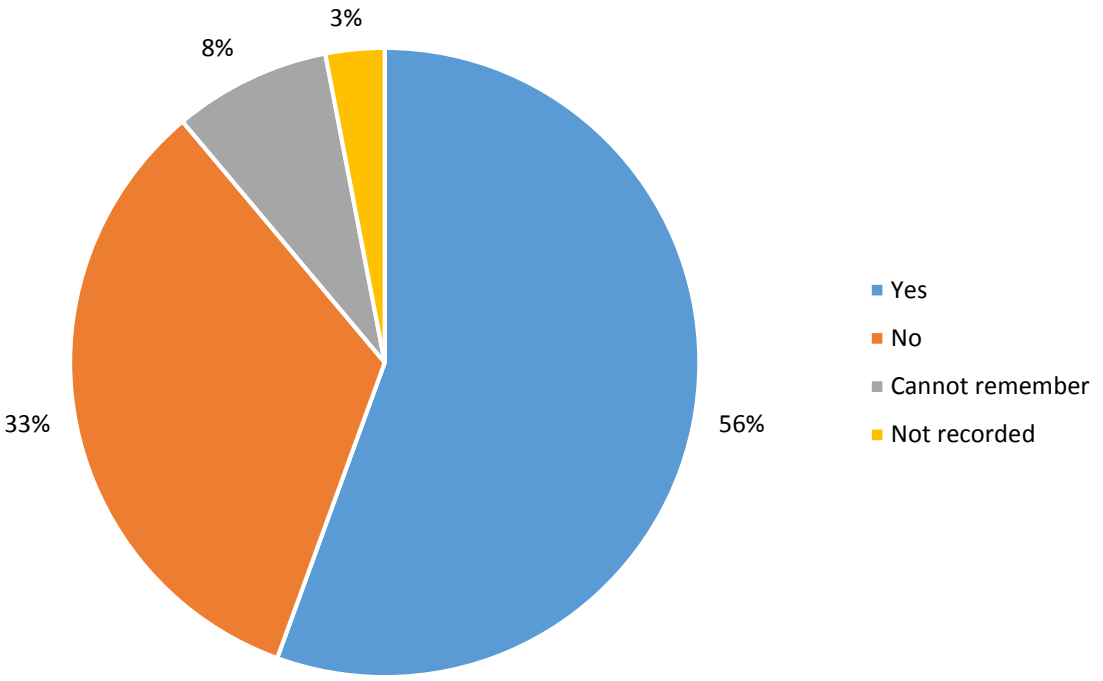


Figure 4 Participants who have previously undertaken repairs at home (n=99).

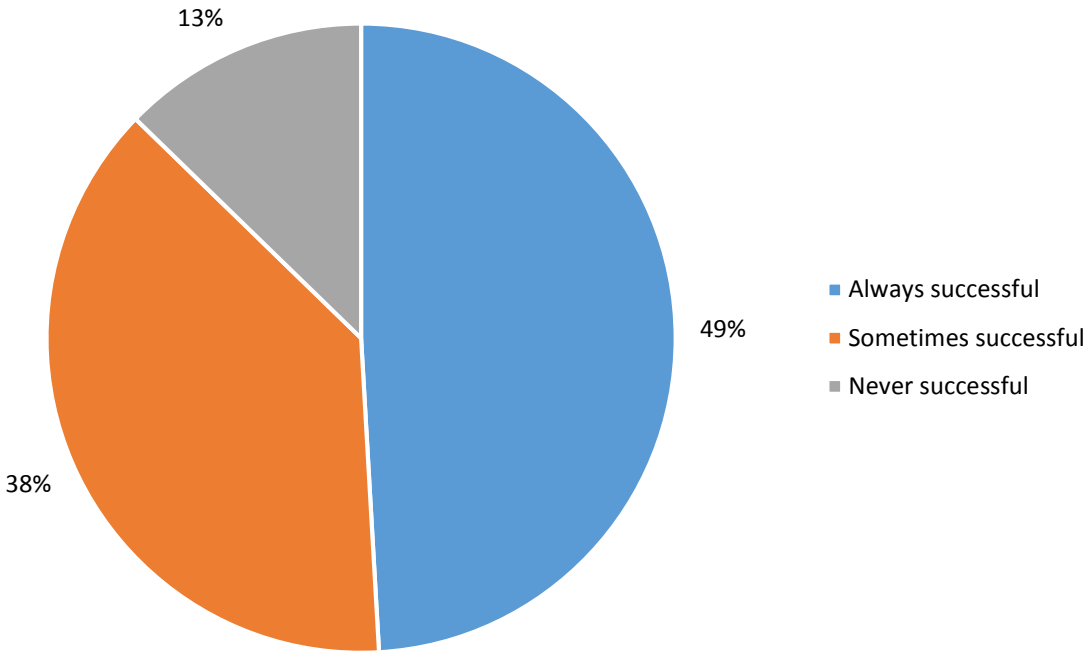


Figure 5 Rate of success of participants who have undertaken repairs previously at home (n=55).

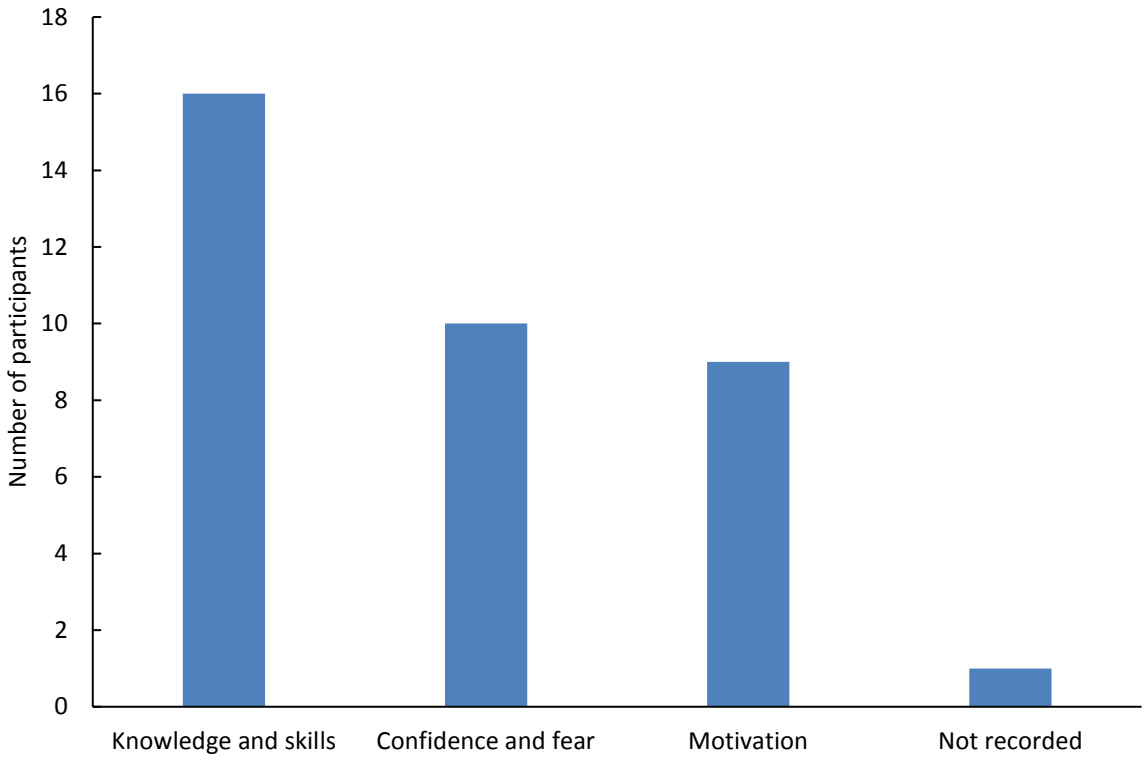


Figure 6 Reasons for not attempting repair in the past (n=33).

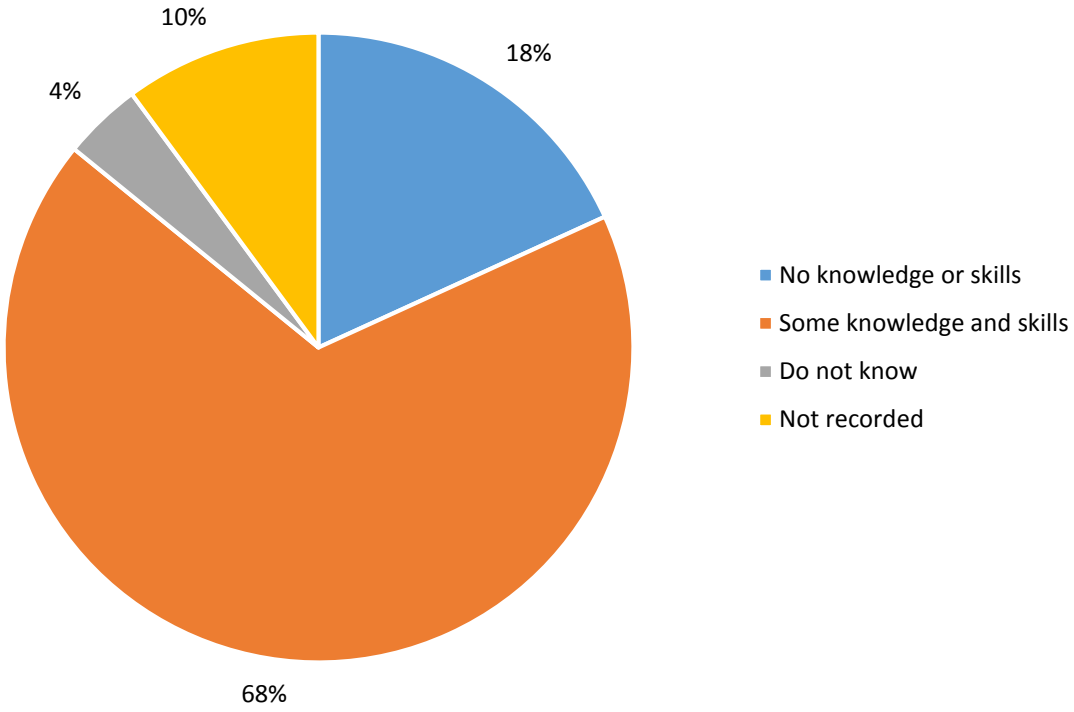


Figure 7 Participants' level of knowledge and skills with regards to repair (simple breakdown of results) (n=99).

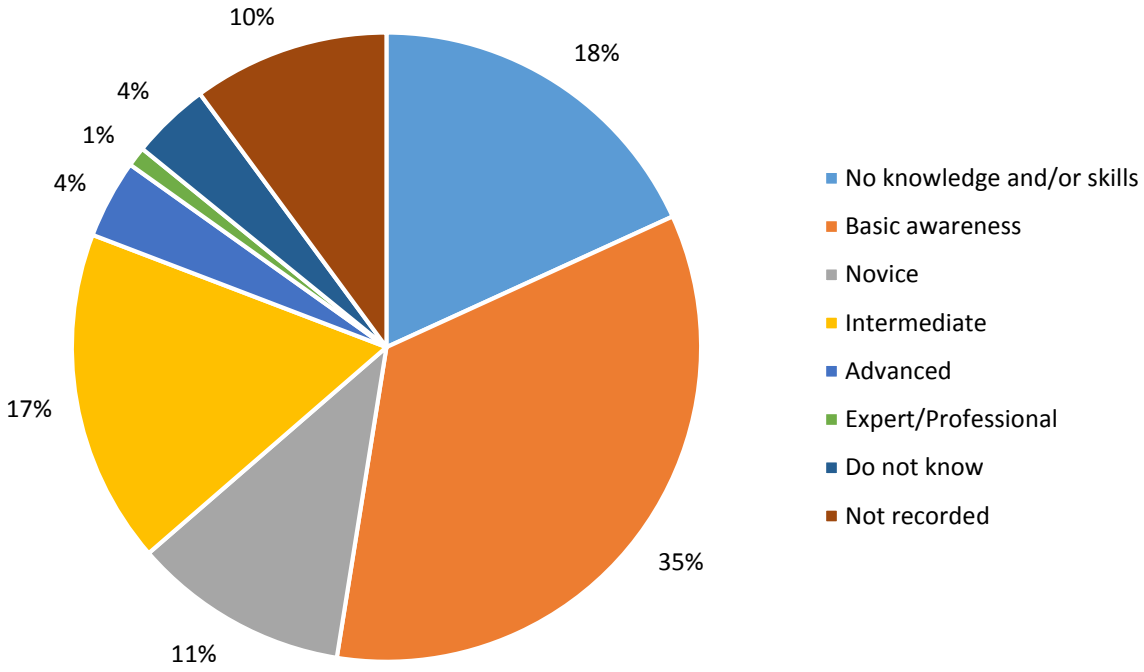


Figure 8 Participants' level of knowledge and skills with regards to repair (detailed breakdown of results) (n=99).

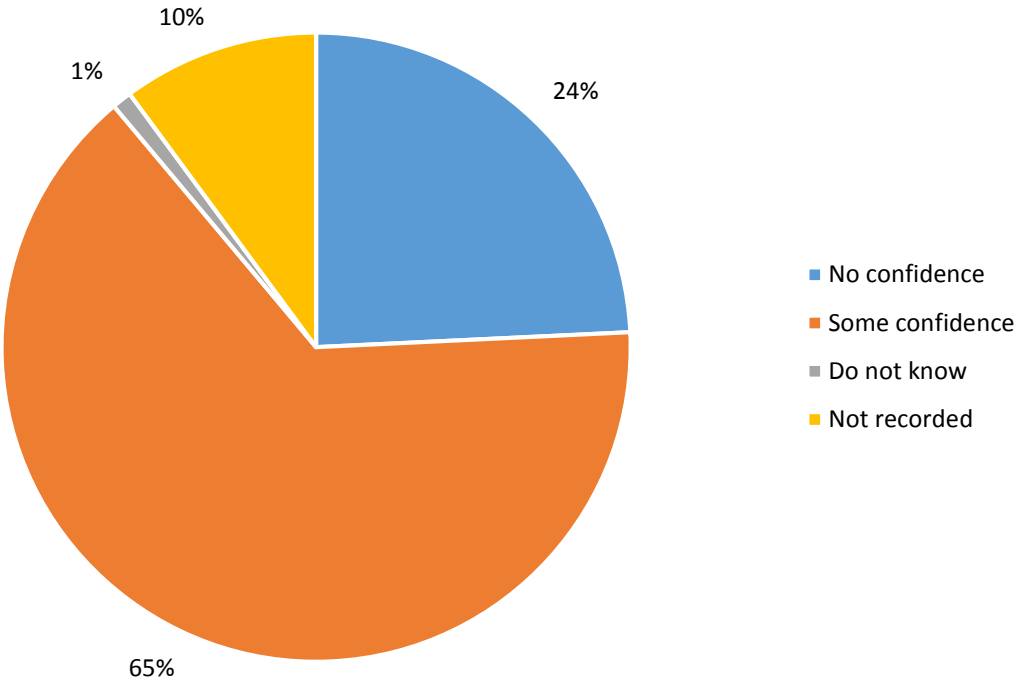


Figure 9 Participants' level of confidence in their ability to repair at home (simple breakdown of results) (n=99).

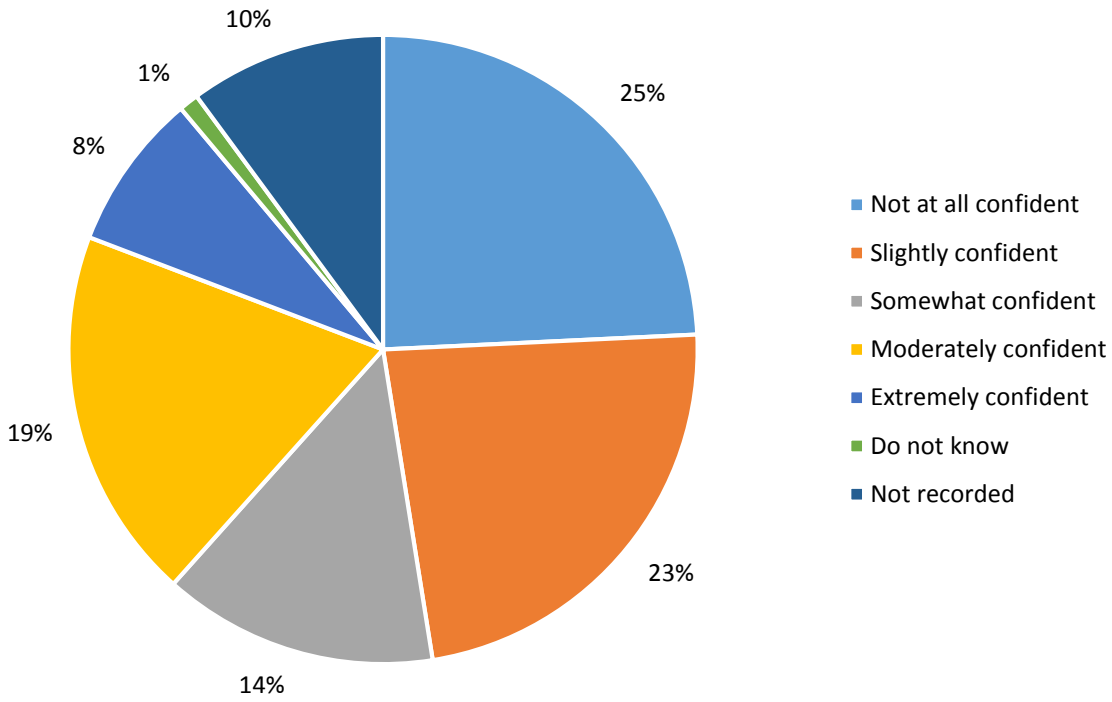


Figure 10 Participants' level of confidence in their ability to repair at home (detailed breakdown of results) (n=99).

Table 2 Cross tabulation of participants' confidence (rows) and level of knowledge and skills (columns) with regards to repair (n=99).

	No knowledge and/ or skills	Basic awareness	Novice	Intermediate	Advanced	Expert/ Professional	Do not know	Not recorded	Grand total
Not at all confident	15	6	2	0	0	0	1	0	*24*
Slightly confident	3	14	4	1	0	0	1	0	*23*
Somewhat confident	0	4	4	5	0	0	1	0	*14*
Moderately confident	0	7	1	9	1	0	1	0	*19*
Extremely confident	0	1	0	2	3	1	0	1	*8*
Do not know	0	1	0	0	0	0	0	0	*1*
Not recorded	0	1	0	0	0	0	0	9	*10*
Grand total	*18*	*34*	*11*	*17*	*4*	*1*	*4*	*10*	*99*

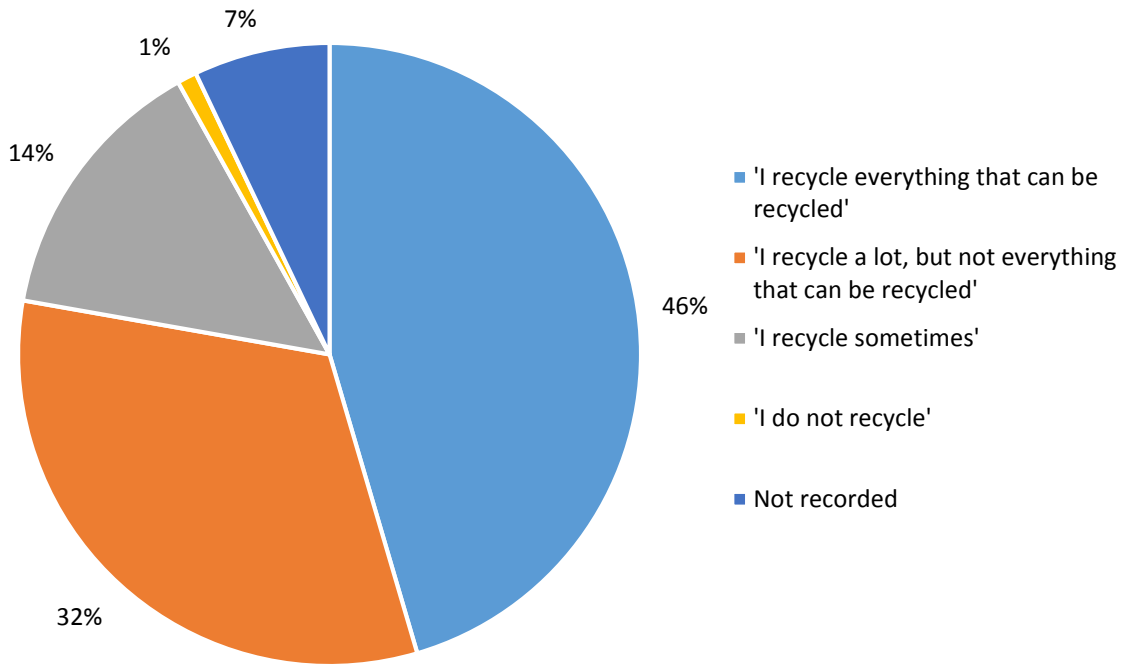


Figure 11 Participants' levels of recycling (n=99).

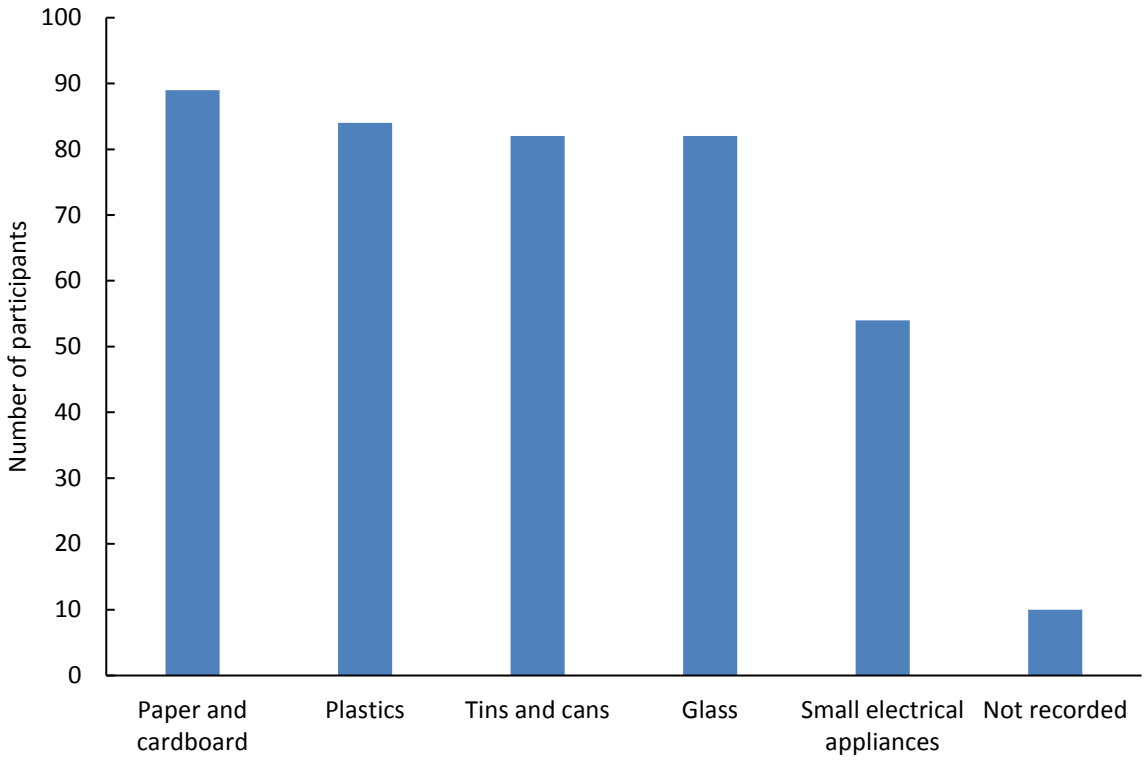


Figure 12 Materials recycled by participants (n=99).

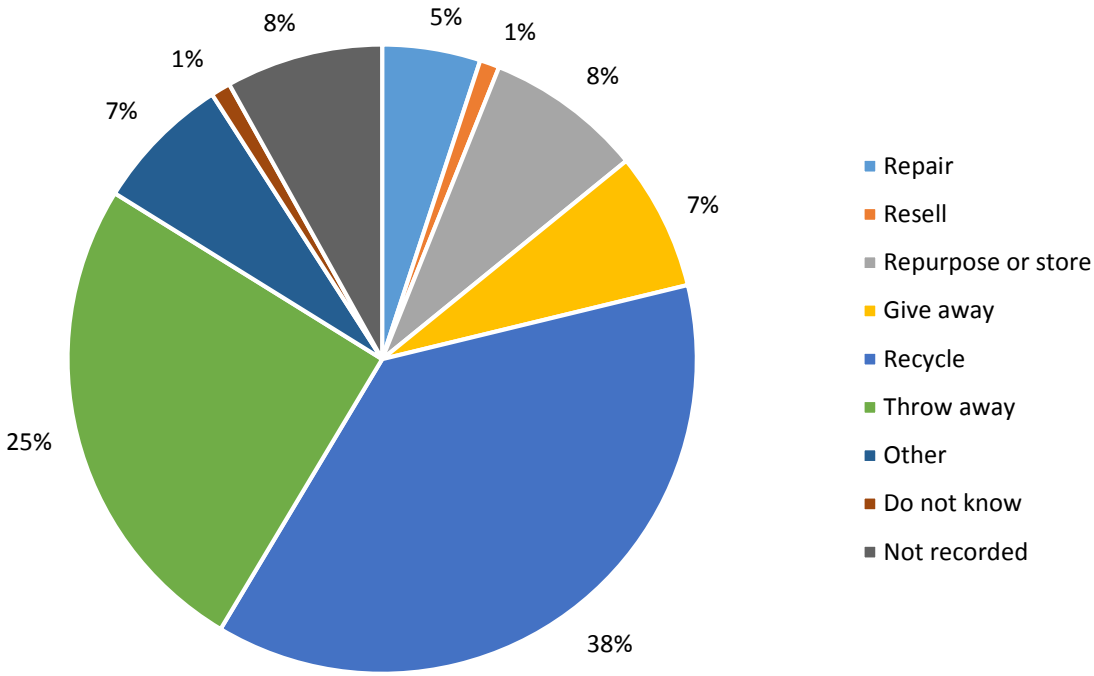


Figure 13 Participants' responses to what they do with products they no longer use (n=99).

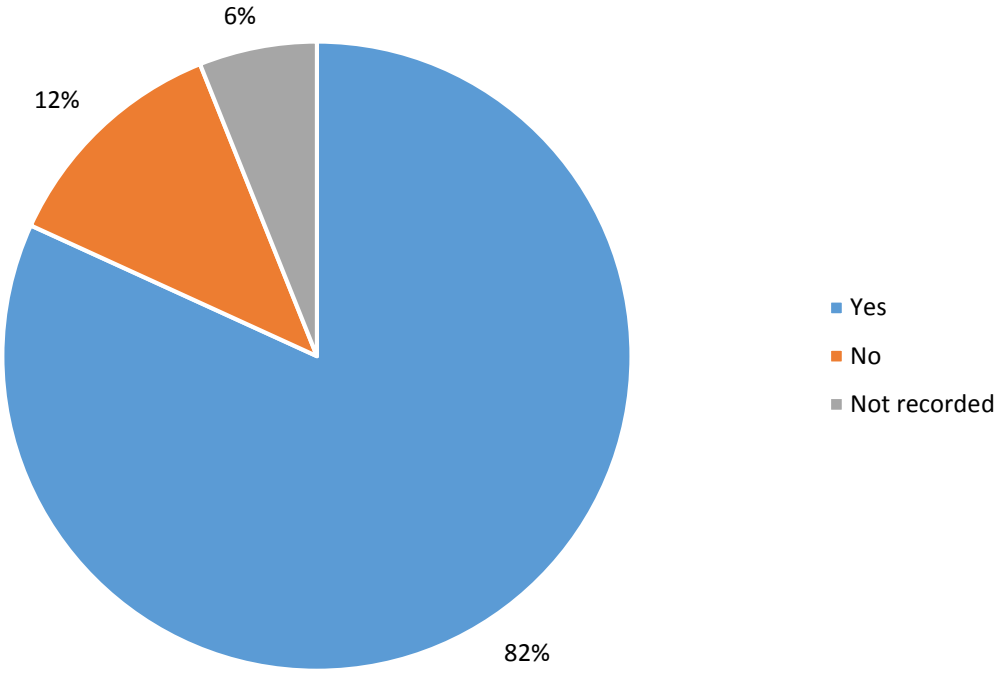


Figure 14 Participants who look for people who can reuse their products when they no longer require them (n=99).

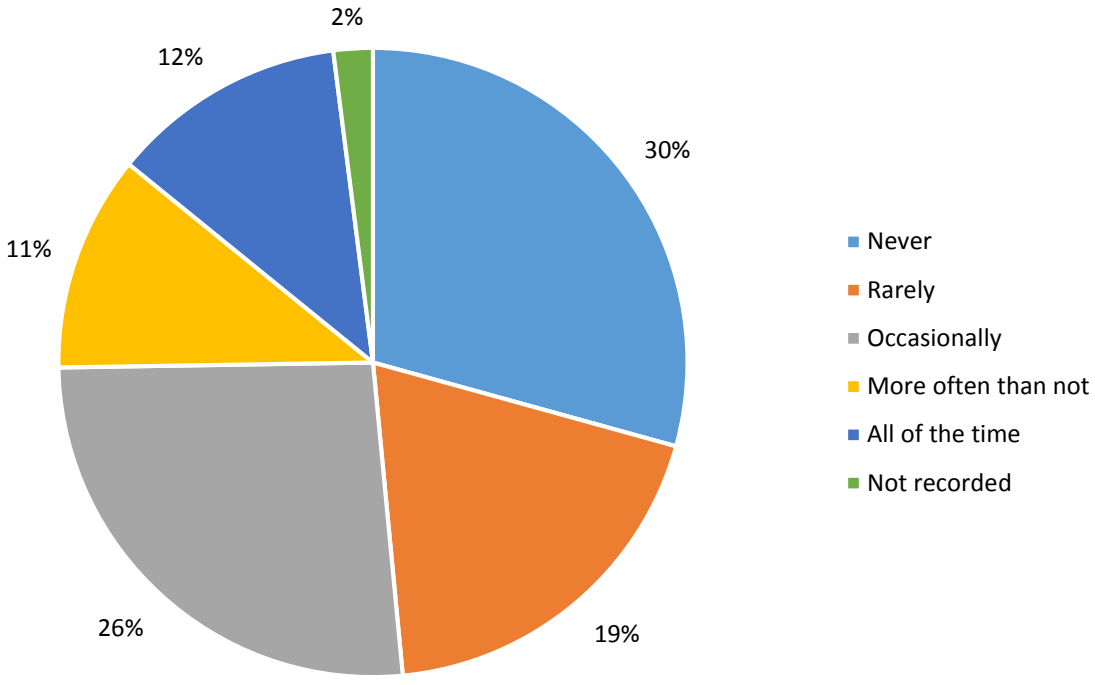


Figure 15 Participants' responses to how often they seek out second-hand products (n=99).

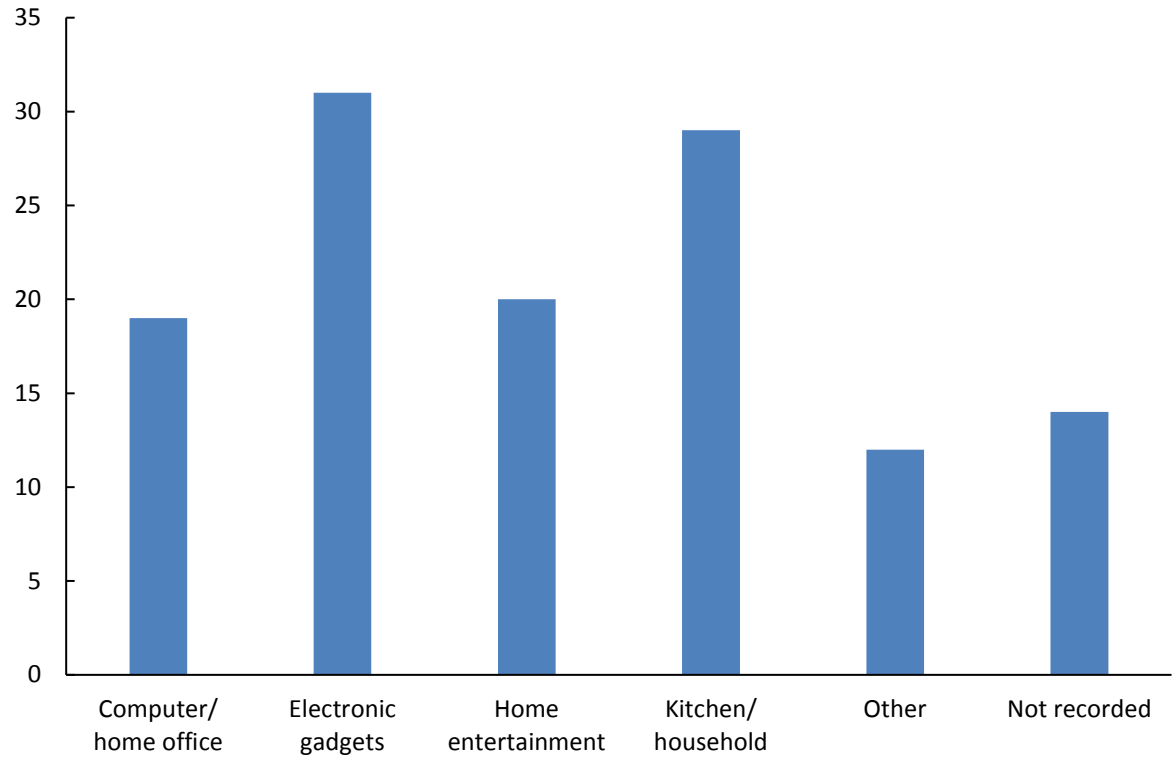


Figure 16 Types of used/ second-hand equipment that participants seek out (n=68).

Infographic

Who are Restart Party participants?

Between September and November **2016** we surveyed participants at **16** Restart Parties in London. We spoke to **31%** of them: **99** out of **319**.

Demographics

Gender



- Female 57%
- Male 34%
- Not recorded 9%

Education



- No formal education 1%
- Below degree level 30%
- Degree level and above 53%
- Not recorded 16%

Age range



- 18-24 4%
- 25-44 33%
- 45-64 26%
- 65+ 16%
- Not recorded 21%

Financial situation



- Comfortable 36%
- Manageable 19%
- Tight 11%
- Struggling 4%
- Not recorded 30%

Key insights

56% have previously attempted repairing at home

Can you name a commercial repairer you trust?
45% cannot



Confidence in repairing:
8% extremely confident
33% somewhat or moderately confident
48% slightly or not at all confident

Most common barriers:
Knowledge and skills
Confidence and fear
Motivation

Reuse of electronics:
82% look for people to reuse items they no longer need. Only **12%** will always seek out second-hand goods.

What materials do you recycle?

Paper and cardboard	Plastic	Tins and cans	Glass	Small electrical appliances
90%	85%	83%	83%	55%

A collaborative research project by NOTTINGHAM TRENT UNIVERSITY restart