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Matching ability with jobs using AMAS: final report

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Haines, Victoria, Richard Birkin, David Hitchcock, Nick Edwards, Stephen Duckworth, and Anna Hondroudakis. 2019. “Matching Ability with Jobs Using AMAS: Final Report”. figshare. https://hdl.handle.net/2134/2169.

EUROPEAN UNION
European Social Fund

Matching Ability with Jobs using AMAS

Final report

Prepared for

European Social Fund

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January 2003

EXECUTIVE SUMMARY

AMAS (Activity Matching Ability System) was developed 20 years ago by Loughborough University and was designed to help young disabled / disadvantaged people to enter the labour market. It is a tool that assesses the ergonomics aspects of jobs (the activities) and the abilities of an individual. The two sets of information are then matched and the results talked through with the individual to see if a good match has been obtained. Early versions of AMAS had a strong manufacturing focus that did not easily lend itself to a varied and developing labour market. The feedback from Employment Service staff, including Occupational Psychologists and Disability Employment Advisers, who used the early version of AMAS was that it was helpful but needed updating.

Funding from the European Social Fund (under a tendering process administered by the Government Office of the South East) was obtained to finance this project, which ran from January to December 2002. The project aims were to develop an improved, updated and computerised version of AMAS that used a current software platform. Its effectiveness was examined in trials with young people who are likely to experience difficulties in progressing from education to employment, as well as not employed and employed people with disabilities.

At Stage 1 of the project, interviews with 67 people with disabilities currently in employment were carried out. A wide diversity of disabilities, from physical impairment to mental health problems, was included in the sample. The results from this determined baseline information about where AMAS needed to be modified and how the assessment should be presented. An assessment was also made about how well it applied to current employment settings and developments in attitudes to disabled people at work.

AMAS was then modified and computerised, taking into account the information gained in the interviews. Stage 2 of the project involved interviews with young people, not employed and employed people with disabilities that provided a further test of the revised tool. This involved extending the usage of AMAS to employment assessment and occupational guidance situations. This step provided the opportunity to assess how effective the improved AMAS was in interviews and where further development and testing were still needed. This final report details the work and its findings.

The project has demonstrated that AMAS is a very effective and useful tool to help people, particularly those with disabilities, into employment. It enables job seekers to identify where their strengths lie and what type of employment suits those strengths. It also identifies, if there is a mismatch, where some solution could be made to overcome any difficulties. The tool was found to have particular relevance for young people, but there are considerations for interview practice and AMAS development. The tool may also have the potential to help both Incapacity Benefit and Income Protection Claimants and others needing to consider work ability matches because of disability or limitations. Areas where AMAS could be developed still further have been identified and discussed.

The project partners were Loughborough University, Department for Work and Pensions, Disability Matters, Knowhow Consulting and Basingstoke College of Technology.

ACKNOWLEDGEMENTS

This project was part funded by the European Social Fund under a tendering process administered by the Government Office of the South East.

The project partners would like to thank everyone who contributed to the project:

- Over 50 large, medium and small commercial organisations provided the opportunity for researchers to interview their employees and observe them in their job environment during work time. Many of the managers involved also completed questionnaires as part of the project research.

- The majority of the young people interviewed attended three further education institutes, who kindly arranged appointments and provided on-site support. Particular thanks go to Amersham and Wycombe College (Nikki Maiden), Cricklade College, Andover (Tim Keighley) and Pield Heath House School, 16-19 Department, Uxbridge (Sister Julie Rose).

- Some members (and co-opted members) of the research team carried out an unexpectedly heavy burden of interview/assessments. Tanya Navarro, formerly Research Ergonomist, ESRI, Loughborough University; Rosie Gleeson, Higher Psychologist, Work Psychology Service, Jobcentre Plus, London; and David Fox, Higher Psychologist, Work Psychology Service, Jobcentre Plus, West Midlands deserve a special mention. Thanks also to Rosie and David for their contributions to the report.

- Dr. Julie Beaumont of IBM kindly hosted a review event at IBM, North Harbour, Cosham.

- We are very grateful also to the Occupational Psychologists working in the Work Psychology Service in Jobcentre Plus in the London, South East and East of England Regions who completed Beneficiary Case Management and Assessment Forms for match funding and research purposes. Thanks also to Jenny Hogg and Michael Meehan, Work Psychology Managers and Graham Huggins, formerly Regional Disability Services Manager for help in supporting the Occupational Psychologists' involvement.

- The research team would also like to record their thanks to their partners Alan Gwyer & Sue Germon of Basingstoke College of Technology, for administrative support throughout the project.

- Most of all, the researchers are extremely grateful to the individuals, young people at college, individuals not working and those in employment who generously gave of their time and ideas. As well as providing the research data, many of their thoughts provided very helpful insight. We promised confidentiality, which we have maintained, but we are now disappointed we cannot name people individually.

Thank you all.

TABLE OF CONTENTS

1.0 INTRODUCTION

AMAS, the Activity Matching Ability System, is a tool which aims to help disadvantaged and disabled people who find it difficult to enter and participate in the labour market by helping them to identify their abilities and match them to jobs. Based upon an ergonomics assessment of task activities required within a job and an assessment of the capabilities of a person, AMAS provides a systematic, but straightforward, method of matching job requirements with the capabilities of an individual.

In addition to its role in job placement, AMAS can also be used as the basis for specifying work training and development needs of people with disabilities. The pragmatic and specifically job-related information provided by AMAS may also be used in the development and training of supervisors and management in their understanding and management of disability.

1.1 PROJECT AIMS AND OBJECTIVES

The project aimed to address specific aspects of the GOSE Regional Development Plan (RDP) by researching ways into developing a tool to highlight the capabilities of disadvantaged and disabled people thereby helping overcome the multiple barriers to social integration, employment and training.

The project aimed to meet Objective 3, Policy Field 2 "Promoting equal opportunities for all in accessing the labour market, with particular emphasis on those exposed to social exclusion" of the GOSE Regional Development Plan. Section 3 of the RDP focuses on those groups that are disadvantaged in the South East labour market. The aim of this research project was to examine ways of providing a higher standard of service in the context of advising employers and employees about adapting jobs to accommodate the needs of disabled people and young people facing disadvantage, using the Activity Matching Ability System. The project aimed to update AMAS through three main stages:

Stage 1 :

- Work with employers who employ disabled people in the region, covering a cross section of small, medium and large employers.
- Work with a number of disabled employees who have overcome (or not) the barriers to sustainable employment, to generate issues regarding employment and adjustment needs at work.
- Update AMAS using current IT platform and produce a portable IT version.

Stage 2 :

- Activity Matching Ability System development.
- Labour market analysis, evaluation of employer and employee questionnaires and other gathered information.
- Redesign of AMAS in light of research, development of interactive package for use by psychologists and employers.
- Test with employed and not employed individuals, and disadvantaged young people, who are likely to experience difficulties in progressing from education to employment. This would enable exploration of AMAS for occupational guidance purposes and confront the instrument with more subtle and sophisticated issues.

Stage 3 :

- Final product development and testing.
- Reporting.

2.0 BACKGROUND

In the early 1980s AMAS was originally developed and evaluated by the Institute for Consumer Ergonomics at Loughborough University with funding from the European Coal and Steel Community, British Steel Corporation and Remploy (Stead, Watson and Whalley, 1983). Initially AMAS was developed as an aid to returning disabled steel workers to suitable jobs following absence due to injury or illness. In 1986, AMAS was developed for use by Remploy in the placement of individuals to tasks within their factories (Spicer, Clarke and Breeze, 1987; Breeze, Hitchcock, Spicer and Stearn, 1988). Later, AMAS became available for use by the Employment Service as an enhancement of their portfolio of rehabilitation tools.

Version 1 of AMAS was computerised using an early software platform and it was, therefore, relatively easy to attain match information. However, the process of completing job and person interviews was, perhaps, a little cumbersome – not least because the expectations were for the person assessment to be completed by a medical practitioner. Furthermore, AMAS had a strong manufacturing focus that did not easily lend itself to a varied and developing labour market. As a result, despite being acknowledged as a sound concept and useful tool, to all intents and purposes the use of AMAS declined.

2.1 THE ESSENCE OF AMAS

AMAS is based on the established ergonomics principle of providing fit for purpose work solutions through ensuring a harmonious relationship between who is doing the work, the tasks they perform, the equipment they use and the workplace itself. On the same basis, throughout its history, AMAS has been developed iteratively within the context of the characteristics of the organisations and their staff, the nature of the work demands and the end users of the AMAS system itself.

2.1.1 Person Ability Assessment

In order to determine the abilities of an individual with respect to the work they may be expected to perform, AMAS explores specific needs within four principle domains: work environment, equipment used, physical work demands and other work demands such as cognitive or social aspects; Version 1 included a total of 103 items across these areas.

Guidelines for assessment are used to facilitate consistency of assessment. For each of the original 103 items, the assessor would determine whether the individual had no problem (normal ability), some problem (some discomfort or disability) or a major problem (great discomfort, difficulty or inability).

2.1.2 Job Activity Assessments

The job activity assessment addresses the same issues as the person activity assessment. AMAS looks at the job as it is and determines whether there is no, some or a major requirement for an activity. Whilst most jobs can be done in a variety of ways, it is often custom and practice to do a job in a certain way. The job activity assessment is completed with this in mind, so that any variation from the usual way of doing a job can be highlighted. For example, it is usual for a technical author to read documents using sight, therefore the job usually involves seeing and reading. However, a visually impaired person could equally do the job, but would need the simple addition of particular equipment, technology or personal reader.

2.1.3 Matching

Once the person ability and job activity assessments have been completed, a matching process then takes place. Version 1 of AMAS described these as:

'Good matches', where an item has no requirement on the job, or a person has no problem, or both.

'Potential mis-matches' in which some or a major requirement has been identified in the job activity assessment and/or the person has some limitation in their ability without the addition of an existing or new tool, technique, assistive system or similar.

'Poor matches', which reflect a major requirement in the job activity for which the person has some or a major difficulty or inability without significant compensation.

2.2 AMAS AND OTHER WORK ASSESSMENT TOOLS

To develop an understanding of the potential contribution of AMAS it may help to consider how it relates to other types of person assessment and job activity measures.

Standardised measures of psychological attributes aim to provide information about how much of the attribute is possessed by individuals presented in a way that can be compared to other individuals (groups or population samples) who completed the measure under similar conditions (Nunally, 1957). Such measures, sometimes called psychometric tests (and particularly those constructed in the light of Classical Test Theory (Kline, 1993, Nunally, 1957) have been devised to measure cognitive abilities, educational attainments, personality dimensions and vocational interest. Such measures usually comprise of a set number items that have been found, during the research and development of the measure, to relate to the attribute domain and to do so reliably (across numerous administrations). The items are typically presented in a set or prescribed way (e.g. by pencil and paper or by computer and monitor, as the driving theory test is now delivered) in supervised and sometimes timed conditions. The authors/publishers of the measure provide information about group administrations that enable comparisons to be made (norm tables). In this way an individual who has just completed the instrument can be helped to compare their performance with others who have completed the measure previously.

Such standardised measures help with the employment of people with disabilities in a variety of ways. Some instruments may be used to identify the nature of difficulties experienced by individuals and they can assist with establishing vocational direction and the planning developmental interventions (Parker, Wells, and Snodgrass, 2002).

The Personal Capability Assessment (PCA) is the vehicle by which medical advice is provided to inform decision makers in relation to the test of incapacity state benefit. The threshold is the point at which a person should not be expected to work because of their medical condition. The PCA provides the framework for the judgement and enables medical advisers to provide information about abilities or working conditions that may help in occupational decision-making. Individuals' judgements about the possibility of returning to work often focus on their 'medical' situation and other evidence can be less heavily weighted.

2.2.1 Job analysis

Employment Advisers often need to help job seekers or job changers build up a picture of a specific job. To do this they can identify the tasks involved and the related abilities from job descriptions, person specifications, careers encyclopaedias, manager or supervisor reports and, where available, a job analysis. Some instruments have been designed to assess the performance and ability requirements of jobs rather than attributes of individuals. These are commonly known as job analysis instruments or measures and they can have some similarities to the activity assessment part of AMAS. Sometimes they offer considerable detail (100-150 tasks), such as the Saville and Holdsworth Ltd (SHL) Work Profiling System (WPS).

This job analysis tool describes jobs in terms of their constituent tasks; each task is dual rated in terms of 1) importance to achieving key job objectives, and 2) time typically spent performing those tasks. Combining time and importance ratings yields task criticality estimates. The concept which the SHL WPS taps into is about what is important for successful job delivery.

For each task, the WPS respondent (someone who knows the job well) makes a judgement about the amount of importance the task has (on a scale of 1 – 7) and the amount of time spent performing the task. Various analysis and reports are possible to give a complete overview of attributes someone should have if they are going to do well in a job. However, the process of assessing a job can take between 1.5 and 6 hours. Although this is very detailed and lengthy process, this can be its strength and work profiling is best for very complex or high level jobs or those that are very varied. A key strength of WPS is the facility to build up a description of a job based on important tasks.

Once the tasks of the job have been identified, measures of ability or aptitude can be used to enable individuals to view how they are likely to compare with others (the norm group) on the attribute measured and thereby consider their competitiveness and possibly their developmental needs. Obviously this can be very helpful information for jobseekers. At first sight this process may appear to be straightforward but some authors (Meehan, Birkin and Snodgrass, 1998) have discussed issues about the match of the assessment to the job task and where job-irrelevant factors may occur. This is particularly an issue where assessors are trying to use standardised measures in a fair manner for people with disabilities in employment assessment situations, that is where the potential interaction between the individual and the job are considered, (Meehan et al, 1998). Individuals can be compared on the attribute measured but the employment adviser may have to help the individual recognise the implications for predictions about performance in different jobs. So identification of abilities required in a job, choice of measure and performance factors could have implications for the jobseekers understanding and employment decision.

It is important to note that such measures are often used to assess specific attributes and, from this, estimate likely performance of the individual on a task or tasks requiring the attribute. The measures may tap into key areas of the job and, from this, for individuals with disabilities, some understanding of work adjustments may be obtained. This coupled with consideration of the implications of the disability for employment may form the basis for consideration of adjustments. This approach may unwittingly lead to individuals with visual impairment avoiding jobs involving reading.

There are two issues here; one is about gathering a "holistic" view of the individuals ability to do the job - not just the key performance tasks but all the other tasks which underpin job delivery, e.g. get around the workplace, read the output from a display etc., i.e. do the job in the first place. The second is about looking at the job in terms of the activities that are actually required i.e. the ability to understand language. This approach is likely to lead to a different interpretation of the issue, not based on visual reading but based on the ability to understand language – that is, difficulty reading written language may lead to an avoidance of jobs involving reading.

Other types of measuring instrument do not seek to provide a standardised comparison of an attribute between individuals. Some instruments seek to enable individuals to gather aspects of their experience in a structured way. Known as phenomenological measures, they aim to help individuals gather and recognise their experience. AMAS provides the opportunity for individuals to consider their ability to do job behaviours and then consider the extent to which those behaviours are required as part of a job. The market place for measurement instruments has been dominated by standardised measures designed for use in employment selection, clinical practice and vocational guidance. Some of these instruments do have relevance for employment assessment but practitioners have been aware of a need for an instrument that explores an overview of jobs and individuals on common dimensions. AMAS has the potential to provide this overview.

2.3 OTHER APPROACHES TO JOB-PERSON MATCHING

2.3.1 Adult Directions

Some matching systems aim to explore individuals' interests or preferences in relation to aspects of jobs or job goals. Some of these systems include biographical data etc, an example of which is Cascaid's Adult Directions Multimedia. This is an interactive programme which helps clients with their career decisions. It contains information on over 700 different careers and includes over 180 topical articles on work, training and education. Adult Directions aims to provide a new salary and employment style selection tool which will allow clients to find careers within a given salary range or careers offering the chances of part time or self employment. By answering a series of questions detailing an individuals response ranging from "Dislike very much" to "Like very much", the programme aims to provide a number of careers where there is a match. There are 5 match comments which relate to the responses: "Very good match", "Good match", "Fair match", "Questionable match" and "Poor match". The programme will also take into account relevant health factors if these have been entered. Careers that contain a preventative health factor will be discarded and given a poor match comment.

2.3.2 Switch On To Success

Switch On To Success provides unemployed disabled people with a series of structured workshops, where people are asked to identify the barriers they face when trying to engage with education, training or employment. As part of the Switch on to Success programme, Disability Matters developed an exercise referred to as "The Right Job for Me". People consider what sort of job they think they want to do, and then consult a newspaper to look through the job advertisements. This provides a focus for deciding what it is about certain specific jobs they find attractive and factors that rule other jobs out, e.g. I like this job, but the money isn't enough. Then a specific question can be asked: 'So, how much money would you want?' This process allows people to look at how they would fit to real work, rather than taking an approach of 'I can't think of a job I could do'.

3.0 PROJECT METHODOLOGY

The first version of AMAS was designed over 20 years ago with a view to enabling individuals develop an understanding of their abilities in relation to the activity requirements of jobs in manufacturing and production industries. The labour market has changed considerably in that time with increases in the numbers of jobs in service industries, communications, IT and distribution.

Another change has been the introduction of equal opportunities legislation, and within the labour market particularly the Disability Discrimination Act 1995. A seminar at Loughborough University in 2001, attended by ergonomists, occupational psychologists, disability consultants and researchers reviewed the possible roles and potential for AMAS. Delegates highlighted a need for an AMAS-like instrument with the potential to explore the activity requirements of jobs and individuals' abilities, particularly for disadvantaged and disabled job seekers, but the system should be: solution orientated, relevant to the current labour market, and straightforward to use.

An initial review of AMAS suggested that the labour market changes could have implications for version 1 of AMAS and that some of the operational considerations could be improved if the system could be laptop based and made compatible with current IT platforms. Employment Service (now Jobcentre Plus) commissioned an IT consultancy to advise on whether it would be possible for AMAS to be laptop based. The report was very encouraging and opened possibilities for consolidating information gathering and avoiding duplication within the questions.

To achieve these objectives, this project involved the following stages:

Stage 1)
a. Use AMAS with employed people with disabilities and consider any implications for a more effective instrument.
b. Develop an up-to-date and portable IT version of the instrument.

Stage 2) Use the revised instrument in both paper and IT forms to consider its potential effectiveness with:
a. Young people aged 18 - 25 years who are likely to experience difficulties in progressing from education to employment.
b. Individuals who were not employed or not working.
c. Individuals with disabilities in employment.

This work (with groups 2a and 2b) would involve using AMAS in employment assessment or vocational situations which was not anticipated when AMAS was originally designed. This would be a good test of whether AMAS could be used with job seekers as well as job holders.

People with disabilities and their employers were asked to participate because of the potential for gathering information about individuals' difficulties at work, as well as mismatches between the employee's "abilities" and the job requirements. It is the experience of the researchers that employees with disabilities are more aware of person - job mismatches, employment conditions and issues. This also provided the opportunity to gather the views of the employers to provide a view of their perspective.

At Stage 2 the research approach enabled the researchers to consider whether AMAS could contribute to enabling young people who have difficulty in progressing into the labour market - by using AMAS to enable them to build up a view of their abilities and the job requirements.

4.0 STAGE 1

4.1 METHODOLOGY

In order to assess how well AMAS worked in the current labour market, interviews were carried out with 67 people who had disabilities and were in employment. This was to ascertain how effective AMAS was in matching people who were already employed to their current jobs. A person ability assessment and a job activity assessment were made for each individual. This information was supported by the employee's own assessment of how well they felt they matched with their current job, and an assessment made by their manager or supervisor of the match. These provided a check to ascertain how well AMAS worked.

In order to develop the original version of AMAS into a practical and usable tool, the questions were revised to allow them to be answered as a self-report (or assisted self-report) rather than being used as a 'prompt' on which an expert medical judgement is made. This would allow trained, but non-medical, personnel to conduct an interview / job assessment in a similar way to that conducted by Occupational Psychologists and other employment advisers. This entailed a redrafting of the questions from 'Assess the patient's ability to walk' to 'Can you walk easily?' A full version of the questionnaires used in Stage 1 (AMAS version 2) are presented in Appendix A to this report. Whilst it was accepted that this redraft still contained some areas where questions needed obvious further development, it did provide a workable and effective questionnaire to test AMAS.

4.2 AMAS INTERVIEWS WITH EMPLOYED PEOPLE WITH DISABILITIES

A total of 67 people were interviewed, including 26 women and 41 men. All were working and were interviewed in their workplace. Of the 67 people interviewed, 5 were employed by small companies, 15 by medium sized organisations and 44 by large organisations (3 were not recorded). However, many of the people employed by the large organisations worked in small teams or departments and so had the effective environment of a medium or small employer.

Examples of the range of disabilities that the participants possessed included:

- Epilepsy
- Lower back injury
- Repetitive Strain Injury
- Tetraplegia
- Spina Bifida
- Deafness
- Partial Sight
- Rheumatoid Arthritis
- Balance/Co-ordination difficulty
- Osteoporosis
- Dyslexia
- Multiple Sclerosis
- Hand Tremors
- Stammering
- Chronic Fatigue

The participants held a wide range of jobs, including:

- Packer
- Clerical Assistant
- Contracts Officer
- Management Consultant
- IT Specialist
- Divisional Credit Manager
- Receptionist
- Warehouse Storeman
- Social Worker
- Electrical Component Assembler
- Research Scientist
- Technical Author

Each person was assessed on the basis of their abilities as they came to the interview, without taking into account reasonable adjustments that they may have had in place in their job. This allowed a 'raw' assessment of the person to allow identification of where they may need some reasonable adjustments put in place in work. Each interview lasted approximately one hour, followed by a visual assessment by the researcher of the worker's usual place of work and the work they undertook. Where there were unclear aspects to this assessment, the input of the interviewee, a colleague or a supervisor was sought to ensure an accurate picture of the individual's job was ascertained.

4.3 DISCUSSION OF RESULTS FROM STAGE 1 INTERVIEWS

The results of each set of assessments were analysed. This involved a matching of the two sets of data (person ability and job activity assessments) as well as an assessment of the employee and employer comments and views of matching. A case study example is given here to demonstrate the process.

4.3.1 Case study

Personal details (these have been changed to protect the identity of the individual)
Disability: Cerebral Palsy
Current job: Area Co-ordinator – South East Region

Movement around the work area

Question subject	PERSON ABILITY ASSESSMENT	Job activity assessment	AMAS Match Result
Walking	Major problem	Some requirement	Poor
Movement around the work place	No problem	Major requirement	Good
Access to work area and space within it	No problem	Some requirement	Good
Access to work area: ramps	Some problem	No requirement	Good
Access to work area: steps and stairs	Some problem	Major requirement	Potential mismatch
Climbing	Major problem	No requirement	Good
Work off ground level	Major problem	No requirement	Good

AMAS summary of match:

- 5 good matches
- 1 potential mismatch
- 1 poor match

Employee's assessment of their ability:

- Good

Employer's assessment of the employee's ability:

- Good

Comments

This employee was not able to walk any distance and so AMAS identified a poor match for this factor. However, their ability to get around in a wheelchair meant that their mobility was good, reflected by their overall assessment of this aspect as good. Although the employee's workplace had lifts, their job involved travelling around the region, sometimes to places with steps or stairs. AMAS identified this as a potential problem.

Posture and movement

Question subject	Person ability assessment	Job activity assessment	AMAS Match Result
Standing	Some problem	Some requirement	Potential mismatch
Sitting upright	No problem	Major requirement	Good
Sitting bent over	No problem	Major requirement	Good
Standing or sitting	No problem	Major requirement	Good
Work seat	No problem	No requirement	Good
Backrest	No problem	No requirement	Good
Ability to work at 1 m above floor level	Major problem	No requirement	Good
Ability to work at floor level	Major problem	No requirement	Good
Kneeling	No problem	No requirement	Good
Crawling, sliding	No problem	No requirement	Good
Ability to change posture	Some problem	Major requirement	Potential mismatch
Balance/equilibrium	Major problem	Major requirement	Poor
Twisting body	No problem	Major requirement	Good
Turning head	No problem	Major requirement	Good
Lifting	Some problem	Some requirement	Potential mismatch

AMAS summary of match:

- 11 good matches
- 3 potential mismatches
- 1 poor match

Employee's assessment of their ability:

- Good

Employer's assessment of the employee's ability:

- Good

Comments

AMAS identified 3 areas of potential mismatch for this employee – standing, changing posture and lifting and a poor match where keeping balance is required. This employee was able to complete their job without doing these activities significantly by modification of their working practices, and so rated their match with the job as 'good', but it is possible that an alternative job may require these abilities.

Stature

Question subject	Person ability assessment	Job activity assessment	AMAS Match Result
Ability to reach above 1.5m	Some problem	Some requirement	Potential mismatch
Ability to see above 1.5m	Some problem	Some requirement	Potential mismatch

AMAS summary of match:

- 0 good matches
- 2 potential mismatches
- 0 poor matches

Employee's assessment of their ability:

- Good

Employer's assessment of the employee's ability:

- Good

Comments

Where there is a requirement to see and reach up high, it is often possible for an employee to ask for assistance from another member of staff, or to position all items within easy reach. However, AMAS highlights the potential for problems if an employee is in an alternative building or working alone.

Lower limbs / foot controls

Question subject	Person ability assessment	Job activity assessment	AMAS Match Result
Use of both feet/legs simultaneously	Major problem	Some requirement	Poor
Use of one foot/leg	No problem	Some requirement	Good
Use of right foot/leg	Some problem	Some requirement	Potential mismatch
Use of left foot/leg	No problem	Some requirement	Good
Co-ordinate one foot/leg with the other	Some problem	Some requirement	Potential mismatch
Dynamic control of feet/legs	No problem	No requirement	Good
Power of legs and pelvis	No problem	No requirement	Good
On/off foot control	Major problem	Some requirement	Poor
Variable foot control	Major problem	Some requirement	Poor

AMAS summary of match:

- 4 good matches
- 2 potential mismatches
- 3 poor matches

Employee's assessment of their ability:

- Good

Employer's assessment of the employee's ability:

- Good

Comments

It may be custom and practice for a job to be done in a certain way, and this is what is assessed in the job activity assessment. This job involved travelling, including driving, which necessitates the use and coordination of both legs in a standard vehicle. For this reason, AMAS has identified potential mismatches in relation to use of the lower limbs. The employee and employer have both considered the employee to match well in their job in this respect. However, this is based on what the employee actually does, taking into account all the reasonable adjustments in place (physical and job design related). If this employee were to start a new job, they may have some difficulties initially, until adjustments are put in place.

Upper limbs

Question subject	Person ability assessment	Job activity assessment	AMAS Match Result
Use of both hands/arms (simultaneously)	Some problem	Some requirement	Potential mismatch
Use of one hand/arm ('best' arm).	No problem	Some requirement	Good
Use of right hand/arm	No problem	No requirement	Good
Use of left hand/arm	Some problem	No requirement	Good
Co-ordinate one hand/arm with the other	Major problem	Some requirement	Poor
Dynamic control of shoulders	No problem	No requirement	Good
Power of arms/upper body	Some problem	No requirement	Good
Control and function at extreme reach	Some problem	No requirement	Good
Dynamic control of hands/ forearms	Some problem	Some requirement	Potential mismatch
Strength of fingers/hands/forearms	Some problem	Some requirement	Potential mismatch
Finger/hand dexterity (motor ability)	Some problem	Some requirement	Potential mismatch
Tactile recognition (sensory ability)	No problem	No requirement	Good

AMAS summary of match:

- 7 good matches
- 4 potential mismatches
- 1 poor match

Employee's assessment of their ability:

- Good

Employer's assessment of the employee's ability:

- Good

Comments

Although AMAS picks out several areas of potential mismatch and one poor match, the employee and employer both identify a good match with the current job. Echoing the comments following the lower limb assessment, it is likely that this employee has modified the way they carry out their job and so they have been able to overcome the effects of their disability. Again, AMAS provides an opportunity to highlight aspects of a job that might cause difficulty if these adjustments are not possible.

Physical environment

Question subject	Person ability assessment	Job activity assessment	AMAS Match Result
Heat tolerance	No problem	No requirement	Good
Cold tolerance	No problem	No requirement	Good
Noise tolerance	No problem	No requirement	Good
Airborne particles	No problem	No requirement	Good
Gas or vapours	No problem	No requirement	Good
Skin irritants	No problem	No requirement	Good
Vibration tolerance: hand/arm	No problem	No requirement	Good
Vibration tolerance: whole body	No problem	No requirement	Good
Enclosed spaces	No problem	No requirement	Good
Open spaces	No problem	No requirement	Good

AMAS summary of match:

- All good matches

Employee's assessment of their ability:

- Good

Employer's assessment of the employee's ability:

- Good

Comments
In an area where the employee has no difficulty and there are no requirements within the job, the employee is a good match to their job. This is reflected both by AMAS and the self-assessments.

Risk factors

Question subject	Person ability assessment	Job activity assessment	AMAS Match Result
People working in immediate area	No problem	Some requirement	Good
Potential risks from environment / others	No problem	Some requirement	Good
Job risks associated with machinery	No problem	No requirement	Good

AMAS summary of match:
- All good matches

Employee's assessment of their ability:
- Good

Employer's assessment of the employee's ability:
- Good

Comments
Again, an area where there are no mis-matches.

Vision & perception

Question subject	Person ability assessment	Job activity assessment	AMAS Match Result
Pattern recognition	No problem	No requirement	Good
Colour vision	No problem	No requirement	Good
Recognition of shape/size differences	No problem	No requirement	Good
Recognition of position of still objects	No problem	Some requirement	Good
Judgement of movement of objects	No problem	Some requirement	Good
Near vision	No problem	Major requirement	Good
Far vision	No problem	Major requirement	Good
Peripheral vision	No problem	Some requirement	Good

AMAS summary of match:
- All good matches

Employee's assessment of their ability:
- Good

Employer's assessment of the employee's ability:
- Good

Comments
The employee has no problems with their vision and so there good matches throughout.

Hearing & communication

Question subject	Person ability assessment	Job activity assessment	AMAS Match Result
Hearing	No problem	Major requirement	Good
Work with others	No problem	Major requirement	Good
Communication	No problem	Major requirement	Good
Speech	No problem	Major requirement	Good
Hand signals	No problem	No requirement	Good
Writing	No problem	Major requirement	Good
Reading	No problem	Major requirement	Good

AMAS summary of match:

- All good matches

Employee's assessment of their ability:

- Good

Employer's assessment of the employee's ability:

- Good

Comments

The employee has no problems with their hearing and so there good matches throughout.

Cognition

Question subject	Person ability assessment	Job activity assessment	AMAS Match Result
Counting	No problem	Major requirement	Good
Calculating	No problem	Major requirement	Good
Alertness/awareness	No problem	Major requirement	Good
Concentration	No problem	Major requirement	Good
Accuracy	No problem	Major requirement	Good
Divided attention	No problem	Major requirement	Good
Type of instructions	No problem	Major requirement	Good
Training required	No problem	Major requirement	Good
Memory	No problem	Major requirement	Good
Adaptability to special instructions	No problem	Major requirement	Good
Working pace required during the shift	No problem	Major requirement	Good
Decision complexity	No problem	Major requirement	Good
Time pressured decisions	No problem	Major requirement	Good
Responsibility for checking work	No problem	Some requirement	Good
Responsibility for work scheduling	No problem	Major requirement	Good
Responsibility for time losses	No problem	Some requirement	Good

AMAS summary of match:

- All good matches

Employee's assessment of their ability:

- Good

Employer's assessment of the employee's ability:

- Good

Comments

In an area where there are many major requirements, the employee has no problems with their cognitive thought process and so there good matches throughout.

Controls & displays

Question subject	Person ability assessment	Job activity assessment	AMAS Match Result
Pushbutton	Some problem	Major requirement	Potential mismatch
Flick/toggle switch	Some problem	No requirement	Good
Lever	Some problem	Some requirement	Potential mismatch
Knob/rotary selector/key	Some problem	Some requirement	Potential mismatch
Small hand wheel/small crank wheel	Some problem	No requirement	Good
Large crank wheel/fly wheel	Some problem	No requirement	Good
Keyboard	Some problem	Major requirement	Potential mismatch
Pegboard	Some problem	No requirement	Good
Hand tools	Some problem	Some requirement	Potential mismatch
Manual measurement	No problem	No requirement	Good
Analogue or digital displays	No problem	Some requirement	Good
Visual display unit	No problem	Major requirement	Good
Lights as indicators	No problem	Some requirement	Good
Auditory information	No problem	Some requirement	Good
Control and display complexity	No problem	Major requirement	Good

AMAS summary of match:

- 10 good matches
- 5 potential matches
- 0 poor matches

Employee's assessment of their ability:

- Good

Employer's assessment of the employee's ability:

- Good

Comments

This employee found using small controls such as buttons, knobs, or hand tools sometimes difficult and so there are potential mismatches where these are a requirement of the job. Again, as the employee is able to make some reasonable adjustments in their current job, these aspects do not cause them a problem.

4.3.2 Overall results

The following Table shows the results of the matching process for all 67 interviewees. This represents the match between the employees and their current jobs.

Stage 1 interviews AMAS match results

No	Disability	Current job	AMAS match result		
			Good	Pot.	Bad
1	Tetraplegia	Company director	76	8	19
2	Memory/learning difficulty	Packing	102	1	
3	Slow learning/dyslexia	Small manual work	103		
4	Spina Bifida	Receptionist	93	5	5
5	Epilepsy	Stores / purchasing	101	1	1
6	Spina Bifida	Supervisor	101		2
7	Slow learning	Electrical component assembler	103		
8	Cerebral palsy	Administrator	84	19	
9	Brittle bone disease	Regional disability manager	102		1

10	RSI/circulatory (DVT)	Advisor / office manager	89	13	1
11	Cerebral palsy	Clerical Assistant	98	5	
12	Epilepsy & Hydrocephalus	Operator	83	15	5
13	Club feet, hearing/balance	Packer	89	13	1
14	Partially deaf	IT Specialist	98	4	1
15	Stress/Anxiety	IT Manager	93	10	
16	Lamenectomy	Shop work	95	7	1
17	Chronic Anxiety/Panic	Engraving Instructor/Supervisor	96	7	
18	IBS/Virus/Asthma/Sleep Epilep	Rehabilitation Officer	101	2	
19	Underactive Thyroid/Asthma	Learning Support Assistant	95	5	3
20	Lower back injury	Administrator	90	11	2
21	Epilepsy	Engineering Stores Handyman	96	7	
22	No Left hand	Administrator	97	6	
23	Chronic Fatigue	Software salesman	101	2	
24	Severely Deaf	PD Manager	100	2	1
25	Back Injury	Electro-Mechanical Assembly	97	6	
26	Deaf	Social Worker	86	14	3
27	Tetraplegia	Trainee Analyst Programmer	97	3	3
28	CP + loss of part of leg	Packer	102	1	
29	Rheumatoid Arthritis	Financial Analyst	91	10	2
30	Cerebral Palsy	IT Computer Related	93	9	1
31	Haemophilia,HIV,HepC,LTKR, arthritis	Purchasing administrator	96	7	
32	CREST- Scleroderma and Reynaulds Syndrome	Disability employment advisor	96	4	3
33	Slight brain damage	Operator	99	4	
34	Epilepsy, arthritis, spinal curv.	Warehouse Store man	96	7	
35	Balance/Co-Ordination diff.	Operations administrator	95	8	
36	Visually Impaired	Technical Author	99		4
37	Deaf	System administrator	102	1	
38	Speech Difficulty, RTA injuries	Electro/mechanical assembly	96	5	2
39	Hemiplegia, Asthma, Arthritis	Cable packing	94	6	3
40	Tiredness	Writing and testing software	93	10	
41	Registered Blind	System support	95	1	7
42	Osteoporosis	Team Leader	96	1	6
43	Partially sighted	Software engineer	98	4	1
44	Dyslexia, Epilepsy, Addiction	Trainer	87	16	
45	Registered Blind	Customer service representative	95	6	2
46	Multiple Sclerosis	Divisional Credit Manager	100	3	
47	Dyslexia	Head of planning and finance	98	5	
48	Registered Blind	Project manager	92	7	4
49	Spina Bifida	Liaison + Policy Development	98	3	2
50	Temporo Mendidular Joint Problem, Hearing Impairment	Administrative Assistant	94	7	2
51	Partial Hearing, slight CP	Assistant Management assistant	98	3	2
52	Back Problem	Contracts officer	97	4	2
53	Hand Tremors	Clerical Assistant	97	4	2
54	Spinal Injury	Access Officer	95	3	5
55	Back and leg trouble	Receptionist	96	4	3

56	No right upper limb	Receptionist	94	9	
57	Right leg Paralysis, Spina Bifida	Vacancy team-member	94	3	6
58	Stammering	Project Manager	95	7	1
59	Dyslexia	Communications officer	101	2	
60	Generalised Dystonia	Executive officer	97	6	
61	Cerebral Palsy	Database advisor	98	5	
62	Heart Disease	IT specialist	103		
63	Paraplegia	Disability consultant	Incomplete data		
64	Shortened Forearms	Surveyor/Access consultant	Incomplete data		
65	Multiple Sclerosis	Senior Admin officer	97	6	
66	Repetitive Strain Injury	IT specialist	90	10	3
67	Right side paralysis, Epilepsy	Project manager	82	18	3

Whilst it might appear that there were a number of people who matched quite poorly with their current jobs, it must be remembered that people were assessed without taking into account any reasonable adjustments they may have had in place. In many cases, the individual felt they were a good match with their job because a number of modifications had been made to the way their worked, or their working environment. This was reflected in the ratings that the employee and employer gave with regards job match.

Where there were discrepancies between the AMAS match, the employee's and the employer's rating, it was felt that this was due to a number of possible reasons:

- Like with like was not compared: the Person Ability Assessment part of AMAS looks at a person as they are, independent of the job they are doing, whereas the employees and employers rated the match with reasonable adjustments in place. For example, AMAS highlighted a poor match for someone with mobility disability for a job necessitating travelling. However, they rated themselves as being a good match in this respect as they have a motorised wheelchair and modified vehicle provided by their employer. This was an expected outcome of this stage, as it was decided in advance that reasonable adjustments should not be included in the AMAS assessments, although this would inevitably mean some variation with the employee/employer assessments. However, it was considered that this research approach would test AMAS in a more realistic way for its future use.
- Interestingly there were some significant differences of opinion between the employees rating of themselves in their job and their employers' ratings. This was sometimes due to interpersonal issues: 'I don't get on with my supervisor', sometimes because they did not want to admit to their supervisor that they were struggling in an aspect of their job, but felt able to discuss this with the AMAS assessor, or where the perception of the employer was poor towards the person's disability.
- Some individuals were felt to have a poor self-perception, and demonstrated an over-exaggeration of their abilities.

4.4 REVISION OF AMAS

These first stage interviews were very successful in identifying areas where AMAS v2 worked well and where it needed improvements. It gave disabled employees a chance to talk independently about their job and it made them feel valued. However, there were issues about the questions. Often people had some difficulty in understanding why they were being asked a question and some re-phrasing and clarification was needed. Also they identified that there were a number that were simply not relevant to them, their work environment or their job. Some of the areas that needed particular consideration included:

- Clarity in the questions and explanations including the use of language.
- No mention of frequency.
- The questions do not provide opportunity to describe fluctuating impairments, stress or fatigue.
- Provides only a snapshot and does not take into consideration:
    - How I am feeling today?
    - How will I be tomorrow?
    - How did I feel last week?
- There was also a contradiction when people were asked about the number of questions; many thought there were too many but not enough about their own disability.
- The tool did not take into account the person's ability to do a job when faced with poor management and poor communication issues.
- AMAS did not take into account the behaviour of others on the person's ability to do the job. This related to particular people with mental health problems, declared or otherwise.

To reflect the comments from those interviewed, the question structure and wording of the Person Ability Assessment was revised to create AMAS version 3. This included the following major changes:

4.4.1 Job focus

AMAS originally assessed whether a person was able to do a particular activity, regardless of the circumstances. Whilst job related examples were given, there was no specific reference to the person's ability to do an activity **at work**. The questions were re-worded to reflect this; that is, to ask the questions in terms of work-related behaviours. For example:

- Original medical assessment (AMAS v1): Assess the patient's ability to walk.
- AMAS v2: Can you walk easily?
- AMAS v3: If a job involved walking, could you do that?

This meant that a specific job focus was gained and an individual's ability to do that activity at work was determined. Furthermore, individuals could consider their specific job or job goal, which made the assessment more realistic.

4.4.2 Response format

The 'No Problem - Some Problem - Major Problem' response format of the original version of AMAS was felt to have a potentially very negative approach and incline advisers and beneficiaries to look at alternative work, rather than weigh up an overview of task performance, abilities (how good they may be at the job), potential adjustments and mismatches. A more positive approach was required, coupled with the requirement to allow more detail where necessary; this led to the development of a new structure. Maintaining the essence of the three answer options, this became:

- Yes replacing 'No Problem'
- Yes, but… replacing 'Some Problem'
- No replacing 'Major Problem'

A 'Yes' response was selected when the person being considered was able to do the activity at work without any difficulty, hence the measure of self-report. A 'No' response was selected when the person judged they were not able to the activity at all. Anything else warranted a 'Yes, but…' response. For each question, this included a list of options that related to the question, generated as a result of the Stage 1 interviews. For example:

If a job involved walking, could you do that?

Yes	
Yes, but…	1. I can only walk short distances 2. I need assistance with walking (crutches, sticks, rails, long cane) 3. I can not walk on rough ground easily 4. I can not walk on smooth / polished surfaces easily 5. I get tired easily 6. I can but I'm not meant to 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

This structure also allowed the inclusion of comment about changing abilities, which may fluctuate from day to day. The 'other' category allows note to be taken of any other condition that is not listed specifically.

4.4.3 Solutions

The opportunity to add comments about a specific solution that may be appropriate was also provided. Ultimately, this could be developed into a solutions database, providing suggestions to others who face the same issues. It is possible some of the solutions may be straightforward, such as the provision of an item of equipment, or they may involve negotiations with an employer regarding a work adjustment.

4.4.4 Gatekeepers

For some people, there were a number of potentially irrelevant or repetitive questions. For example, if someone had no sight at all, then they did not have to be asked whether they could see objects close to them, at a distance, etc. To reduce the number of irrelevant questions, gatekeeper questions were introduced. This allowed the assessor to ask one simple question to determine whether a sub-set of questions needs to be asked or not.

Thus it was possible to include gatekeeper questions for sight, use of the lower limbs and use of the upper limbs. It is likely that additional gatekeeper questions could be introduced as AMAS develops further.

4.4.5 Addition and removal of questions

There were some areas where questions were felt to be missing and others where the question area was outdated. For example, there were no questions specifically about travelling and driving as part of a job, areas which were felt to be important. The questions relating to use of information technology were very rudimentary and this section was expanded and improved. Some questions were very specific to the manufacturing industry, AMAS's original target, for example, Can you use a pegboard? These questions, together with those that were not needed given the new structure, were removed to keep the questionnaire manageable. This resulted in a final total of 80 questions, 78 of which gave a match.

4.4.6 Revised wording and reordering of questions

Questions were reworded where the original wording was felt to be outdated, or where the language used was inappropriate for the approach now being taken. Once all the revisions had been made, the questions were re-ordered to ensure a more logical sequence during interview.

A full version of the revised questionnaires of AMAS version 3 (used in Stage 2 of this project) is presented in Appendix B to this report.

4.4.7 Matching changes

Although the principles of the matching process did not change, the output presented to the assessor and client was felt to be inappropriate and was revised. What had been referred to as 'Some Problem' with a potential mismatch in the original version was felt to need only a simple solution to overcome the mismatch; for example, an off-the-shelf piece of equipment or straightforward job modification. What were previously called Bad Matches were felt to require a more creative solution to overcome. Although this only appears to be a semantic change, this reflected the positive emphasis and general philosophy of the new AMAS, where individuals are not immediately eliminated from any possibility of performing a job, but changes are considered which will prove enabling to the individual. This permits the advisor and beneficiary to explore an overview of the individual's ability to perform the job well (achieve the job objectives), as well as any mismatches and consider potential solutions. This job exploration can then be compared to other jobs if necessary. This also reflects the shift from an instrument which could be used to show why someone could not do a job to one which encourages people to explore and solve problems, to find where necessary creative solutions

4.5 DEVELOPMENT OF THE IT PACKAGE

As part of the development of the AMAS IT package, a requirements specification was drawn up. This included the following issues. Whilst it was decided that all these requirements were not achievable or desirable within the scope of this project, they provided a framework for the potential development of the software.

- **Ease of use / accessibility:** The AMAS software should allow people with no specialised training to be able to use the tool to assess a job. Employment advisers, job seekers, employers and other personnel should all be equally able to use the tool easily. The tool should be accessible by disabled job seekers and should be designed to conform to the W3C accessibility guidelines. These guidelines are published by the World Wide Web Consortium (W3C), the body which exists to promote the evolution and interoperability of the Worldwide Web.

- **Flexibility:** Different questions will have different relevance depending on the work environment e.g. a desk job may have little or no physical work demands that have to do with the use of feet and legs. The tool should be able to respond to different job requirements.

- **Availability:** The system may be accessible on an Internet site so that job seekers or employers can access it readily. Interaction with the system will be carried out through entering input and receiving output on forms and html pages. (html is the language used to structure text and multimedia documents and to set up hypertext links between documents, used extensively on the World Wide Web).

- **Expandability:** The system should be expandable. Its architecture should be based on open standards so that future components can be added as modules to the existing design.

- **Self Assessment:** An automated version of the Person Ability Assessment test may be made available in two modes. In the first mode, the system would be a computerised version of the current Person Assessment Guidelines. In the self-assessment mode, the job seeker could be able to use the system to assess him/herself.

- **Access to job database:** The job database can consist of descriptions of real openings or of vocational descriptions of various types of jobs. The system could interface with a job database.

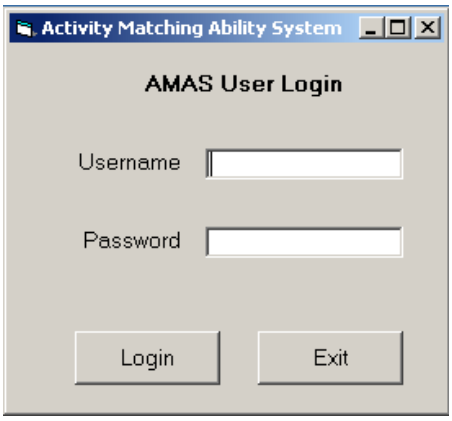
- **Solutions database:** The system should propose adaptations that would minimise the importance of the job seeker's inability. The system could interface with a repository of job adaptations.

AMAS has been developed using Visual Basic 6.0, a development environment which facilitates rapid prototyping. This ease of use does not come at the expense of functionality or sophistication of the resulting software package as the programming language allows for fully-fledged and complex applications to be built.

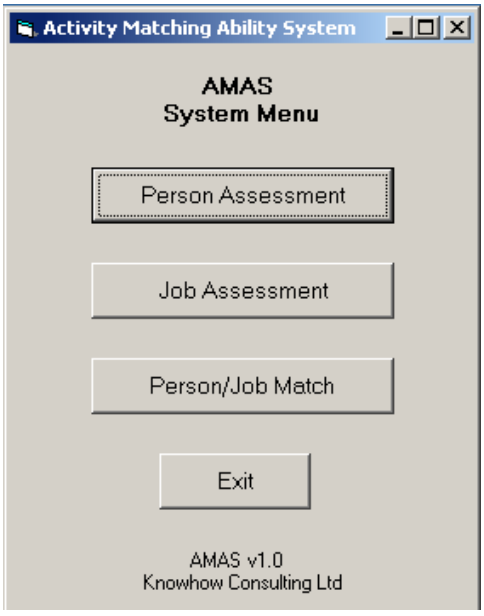
Information gathered while using the AMAS software to conduct interviews is stored in an MS Access database. AMAS is designed to be self-contained with each copy of the application accessing its own copy of the AMAS database. A large percentage of interviews will be conducted out of office, at specific job locations or where an interviewee is based. The application can run on portable computers accessing its own copy of the database. The database schema is designed to enable uploading of interview data from all local databases into a central database maintaining the identity of the assessor who conducted the interviews.

The following shows AMAS's basic functionality:

Log on functionality. Each assessor has to enter their own username and password in order to access AMAS.



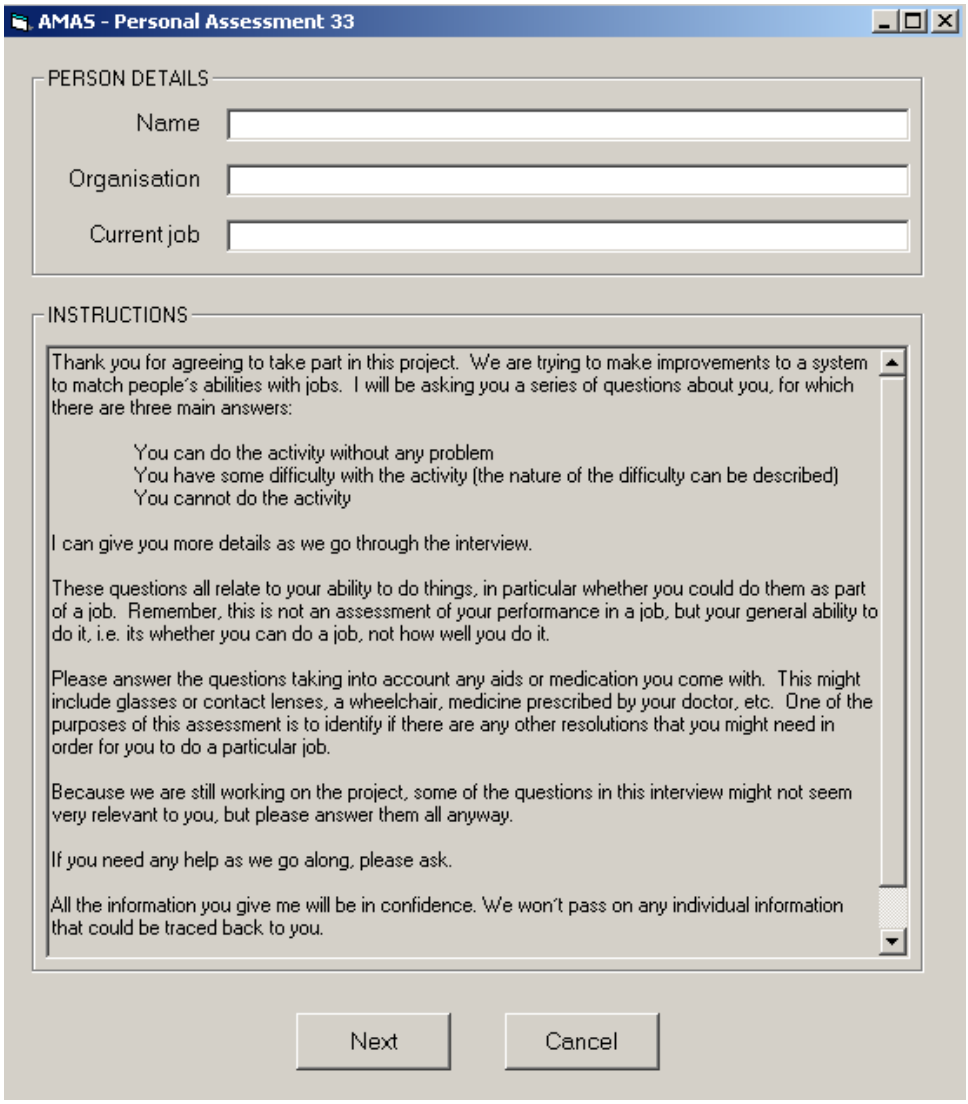
3 modes of operation: Person Ability Assessment, Job Activity Assessment and Match Reporting. AMAS's functionality includes automated versions of the person and job assessment questionnaires. It also performs matches between person and job assessments. On the AMAS main form, the end user is able to specify whether they would like to perform a person assessment, a job assessment or run a match between a specific pair of person and job assessments.



Person identification Details. Details about the person under assessment can be inputted, automatically generating a unique number by the system.

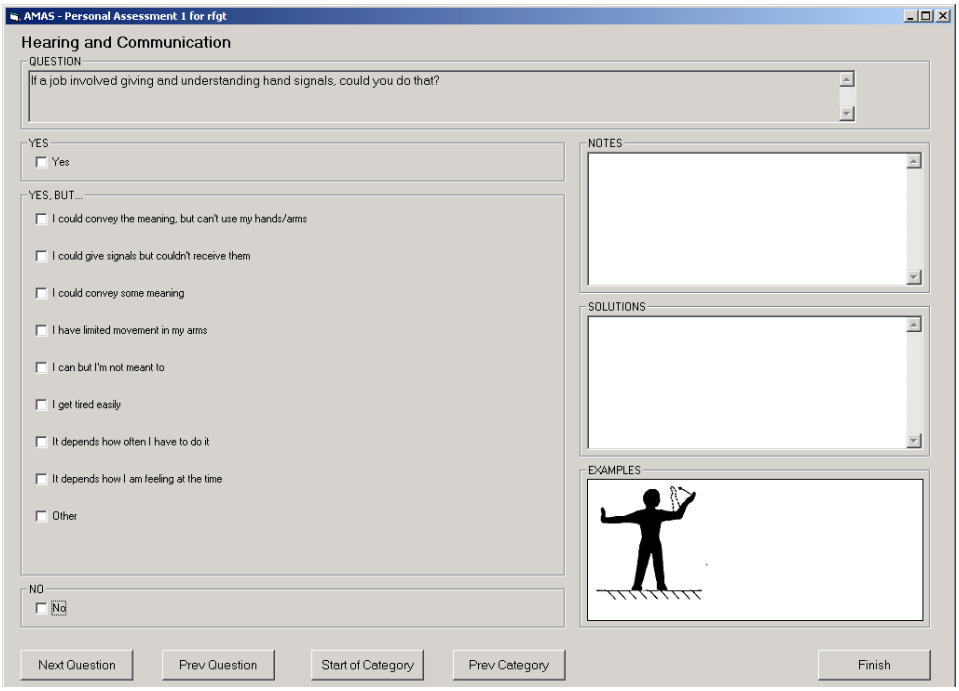
Job Identification Details. Details about the job under assessment can be inputted, automatically generating a unique number by the system.

Instructions. Instructions relating to the project are also displayed on this screen.



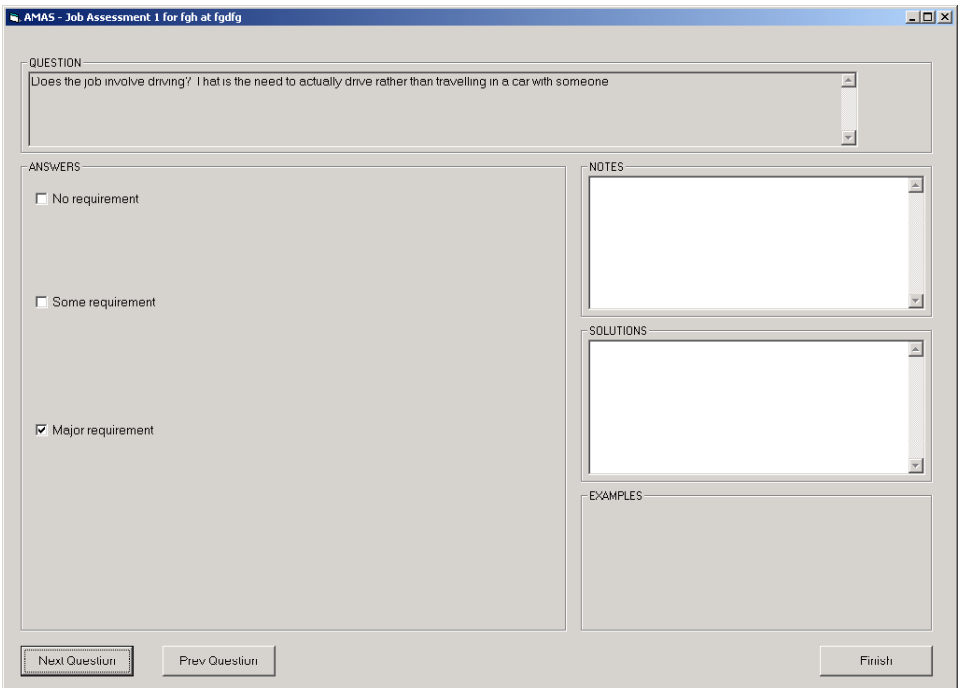
Performing a person assessment

After entering the details of the interviewee, the assessor goes through the person assessment by filling a series of forms each corresponding to a person assessment question. Rich navigation mechanisms are provided that allow the interviewee to move to previous questions or previous sections of the questionnaire when it is necessary to revisit a question. The application allows for 'Notes' and 'Solutions' to be recorded along with a response to a question. An entry in 'Notes' can hold additional information the interviewee provides as part of their response whereas a 'Solutions' entry can describe a workaround to a particular problem. A set of predefined rules including the Gatekeeper questions drive the sequence of the questions presented to the end user.



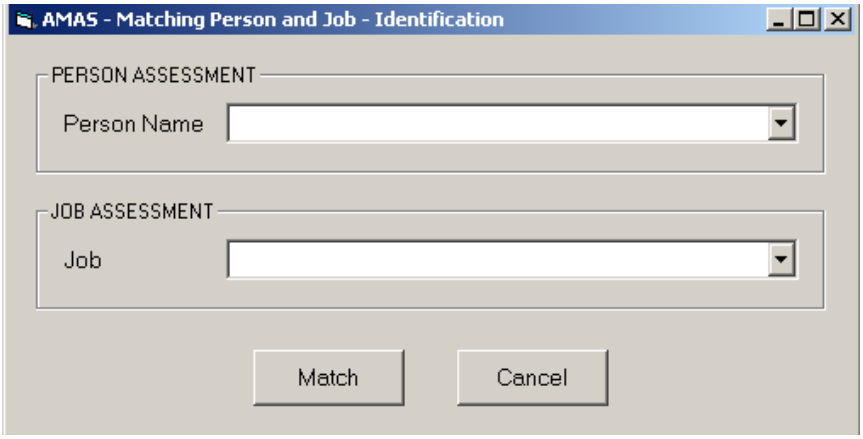
Performing a job assessment

The interviewer enters some identification details about the job under assessment and goes through the questionnaire by filling a series of forms each corresponding to a job assessment question. Navigation functionality enables the interviewee to move to previous questions or previous sections of the questionnaire when it is necessary to revisit a question. 'Notes' and 'Solutions' text boxes have been provided to hold additional information to the response to a job assessment question. A set of predefined rules drive the sequence of the questions presented to the end user.



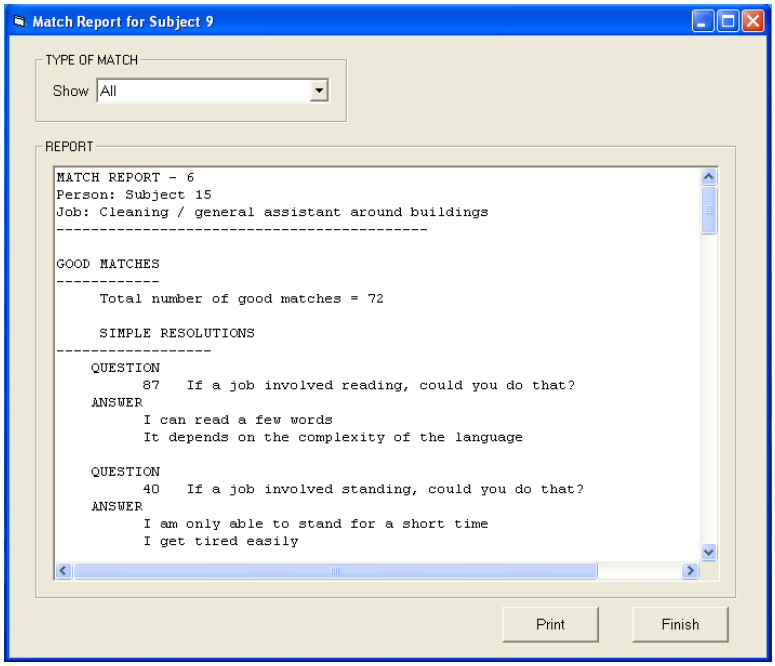
Performing a match

The end user is able to select a person from a list of assessed persons together with a job from a list of assessed jobs and instructs the software to produce a match report between the two assessments.



Match report

The report gives a score for each of the question pairs in the two questionnaires, listing the results under the headings 'GOOD MATCHES' (number of good matches), SIMPLE RESOLUTIONS and CREATIVE RESOLUTIONS (question and answer details). Information that has been entered as a note or as a solution to a problem appears along each match, thus, enabling the interviewer to provide suggestions for overcoming any issues with the matching under investigation.



4.6 USE OF AMAS BY OPs WORKING WITH PEOPLE WITH DISABILITIES

An additional step taken by the project partners was to gather views about the potential of AMAS to be used as an Employment Assessment (EA) or guidance instrument. A survey was conducted with Jobcentre Plus Disability Service Occupational Psychologists (OPs). The OPs were asked to follow their usual procedure for conducting EA interviews with people with disabilities hoping to obtain or retain employment and consider the potential contribution of AMAS. The OPs approached this in different ways. Most conducted an interview/intervention with a beneficiary and then reflected on whether AMAS would have added anything to the process. Others appeared to use all or some of the AMAS questions (version 2) as part of their interview and provided feedback.

The survey analysed the responses for 238 beneficiary employment assessments provided by 18 OPs. In about one fifth of the beneficiary EAs (n=48) the OPs considered that AMAS would have made a contribution. The ability of AMAS to explore physical and cognitive issues was noted. Comments about the physical aspects included:

- "Could have provided a framework to gauge physical impairments."
- "Some of the AMAS questions would have been useful to gain a fuller understanding of the clients physical capabilities in relation to the job she was interested in."
- "(Useful) to look at back/knee problems reported by jobseeker."
- "Would have been helpful in predicting physical limitations."

Comments about the cognitive factors included:

- "It would have helped clarify ...cognitive match to work tasks."
- "Questions covering cognition (helped to address) training and intellect/adaptability and responsibility."

OPs noted AMAS would be helpful in assessing/reviewing the occupational implications of co-ordination and dexterity issues. Additionally the AMAS question framework was viewed to be helpful in focussing the assessment (e.g. "some parts have been helpful in focussing the assessment more" and "AMAS could have provided a tool to start discussion re: capability with specific tasks in job"), in addressing what individuals can do generally and in exploring abilities and skills. The questions were also found to be helpful in enabling beneficiaries to articulate and formulate responses (e.g. "Helped the client to identify ways of saying what he could do - e.g. by reference to the activities and abilities. He had limited spontaneous speech") Other attributes included the ability of AMAS to consider training, responsibility and adaptability were also noted.

Some OPs had concerns about some beneficiaries having the ability to answer the questions, however the opportunity provided by AMAS of obtaining another viewpoint by involving others, particularly employers, was noted, for example "....not sure if jobseeker would have sufficient insight to reliably answer questions. May be useful if his placement manager was included in the interview" and "Although many of the questions were relevant to this client's situation, she was underestimating her difficulties, so self-report would not have given an accurate picture. One option would have been to also ask employer to complete the [AMAS] questionnaire and compare the two sets of answers."

Additionally AMAS was seen to enable beneficiaries to gather information about themselves and to see issues in relation to the whole activity-ability picture, which also had an impact on confidence. Comments included:

- "Helped client to evaluate a wider range of skills she has and not over focus on limitations of dyslexia."
- "Helped client to think more positively about skills they had and how they could use them - develop positive dialogue."
- "Helped to build his confidence in other areas (practical) as opposed to large emphasis on reading etc."

There are a large number of assessment instruments available although most used for employment purposes will be used in selection situations and, until recently, test reviews and guidance has been in terms of usage in clinical, educational and selection settings (Birkin and Meehan, 1999). The number of reviews of measures for employment assessment purposes is now beginning to increase, examples can be found in *Selection and Development Review* (Parker et al, 2002), and the *Journal of the Application of Occupational Psychology to Employment and Disabilit*y (Bodenhan, 2001 in particular).

A more detailed presentation of the OP survey results will be included in Birkin, Haines, Hitchcock, Fox, Edwards, Duckworth, Navarro, Gleeson and Meehan (in preparation), including age, disability, and employment experience.

4.7 USE OF AMAS IN SWITCH ON TO SUCCESS

The opportunity was also taken to use AMAS in the Switch On To Success project. This revealed that some individuals' perceptions and beliefs are negatively influenced by past exposure to assessment systems. During a recent "Switch On To Success" Workshop 1 Introduction Day, the Project Director questioned beneficiaries and identified that up to 80% of those present (45 people) had not received any formal employability or occupational assessments. The remaining 20% felt that they had had some form of assessment by Jobcentre Plus Advisers, which would include DEAs or other Jobcentre Plus external providers. However, the response rate increased when assessments related to interventions carried out by the medical profession were addressed. Responses included "My Doctor told me I can't work" and "My Doctor has said that I can work but I can't do the following jobs..." This suggests a substantial number of people make decisions about the jobs they can or can't do based on vague historical comments. AMAS offers a way forward in these situations. It will help people to gather information about jobs and themselves which may clarify or challenge their perceptions of what they were previously told. AMAS has considerable potential to help here. Many of the issues and assumptions detailed in this report are examples of how disability has been viewed by society and a discussion of the models of disability is contained in Appendix C to this report.

5.0 STAGE 2

5.1 METHODOLOGY

Having revised the AMAS questions and developed a working software version into AMAS v3, a second round of interviews were carried out. These involved 58 people who were categorised as follows:

- Young people aged 16-25 years – 22 people interviewed
- Not employed / not working adults – 20 people interviewed
- Employed adults with disabilities – 16 people interviewed

Interviews were conducted by members of the research team or by Occupational Psychologists with considerable experience of employment and vocational assessment with people with disabilities or disadvantaged in the labour market.

Each respondent was asked the series of questions from the person ability assessment schedule. They responded yes, yes but, or no. It was found that where a person was sure of their answer, they usually gave a confident and short 'yes'. If there was some hesitation in their answer ('yeeeess') the assessor would probe to identify if there was some issue that needed drawing out. This usually resulted in a 'yes, but' response with more detail.

5.2 RESULTS

The results of the interviews, in particular the match results are discussed in the next sections. A case study example is given here to demonstrate the process.

5.2.1 Case study

Personal details (these have been changed to protect the identity of the individual)
Employment status: Not working
Job Goal: Warehouse work
Disability: Learning disability

Match report
Number of good matches = 73

Simple Resolutions = 3

- Question: If the place where you worked had skin irritants such as inks, grease, oil or washing powers, could you work there?
  Answer: Yes, but… Detergents make me itchy.
- Question: If a job involved understanding displays, could you do that?
  Answer: Yes, but…I can only understand simple displays.
- Question: If a job involved using numbers, could you that?
  Answer: Yes, but…Only limited numbers (up to 20). I can count but not calculate.

Creative Resolutions = 2

- Question: If a job involved reading, could you do that?
  Answer: No.
- Question: If a job involved writing, could you do that?
  Answer: No.

This relatively good match only requires a few resolutions to enable the person to do the job successfully. The issues relating to contact with detergents, use of displays and numbers could be examined further with regards to a specific job. It may be that the job does not require extensive use of displays or numbers, and that no detergents are involved, in which case these issues become irrelevant. However, AMAS highlighted the potential mismatch and an assessor or employer could identify easily what needed to be done to enable the person in the job. The two creative resolution issues relate to reading and writing. It may be a simple case of providing training in these skills to allow the individual to reach the required standard, or modifying the job such that they do not have to do these aspects of the work. Either way, it provides a potential employer with a clear view as to what is required to employ this individual successfully.

5.2.2 AMAS interviews with young people

A total of 22 interviews were conducted with young people who were not employed. These were people aged 16 – 25 years, still at college and often finding it difficult to progress into the labour market. Although not all of these people had defined disabilities, some of the conditions they listed included:

- Asperger Syndrome
- Learning disability
- Downs Syndrome
- Spinal injury
- Epilepsy.

Following an initial discussion, each individual was assessed using the person ability assessment, then asked to suggest some job goals that might be of interest to them. Having decided on one particular job goal, the job activity assessment was completed with the individual, discussing what might be involved in the job. The results of these two assessments were then matched, the results of which are shown below.

Young people

No	Job Goal	Good matches	Simple resolutions	Creative resolutions
1	Painter and decorator	74	2	2
2	Computers / Office admin.	71	7	0
3	Leisure centre / Sports area	78	0	0
4	Office work	69	8	1
5	Gas Installation Engineer	68	8	2
6	Bar Assistant in pub	76	2	0
7	Cooking	76	2	0
8	Hair dresser	76	1	1
9	Packing	60	15	3
10	Looking after children	66	12	0
11	Looking after children	45	31	2
12	Hairdressing and beauty	71	7	0
13	Cleaning / general building assistant	76	2	0
14	Nursery nurse	61	16	1
15	Sales assistant (shoe shop)	58	20	0
16	Office work	77	1	0
17	Catering assistant	77	1	0

18	Kennel Assistant	68	8	2
19	Catering Assistant	64	9	5
20	Kitchen Porter	72	3	3
21	Stable hand / Groom	74	3	1
22	Supermarket bag packer	64	14	0
	Average	**69.1**	**7.8**	**1.0**

In most cases, the match between the student and their job goal was reasonably good. In fact, the AMAS results for this group showed the most good matches and fewest resolutions required. This may be due to a number of factors. It was noticed that the young people did not always have a good understanding of the requirements of a particular job goal. This is likely to be due to their lack of experience of employment. It may also be due to an over-enthusiasm to impress the assessor of their abilities. This emphasises the need to have an experienced assessor involved in the completion of AMAS.

In some cases there were a large number of simple resolutions needed, although these often related to the same issue, e.g. 'I get tired easily' which impacted on their ability to do a number of different activities. It was found that the cognitive section was the most relevant for this group of respondents, as their physical abilities were generally good. Difficulties that people within this group might have tended to relate to the cognitive aspects and so this section allowed more in depth probing in this respect.

These interviews could be very drawn out, but it was observed that often the young people did not have the stamina to attend to all the questions and the input provided by the interviewers. Often, the interviewer had to provide information about jobs to help the individual appreciate aspects of the job they had not recognised.

It is possible that using AMAS in this way may not be suitable for all people. It was noted that some respondents did not appear to see a cumulative benefit of the AMAS questions, especially those people with severe learning difficulties, where their ability to engage in a process is also affected. A shortened version of AMAS may be a more suitable tool to use in these cases, where attention can be focused for a limited period only. However, this would change AMAS significantly and a level of detail would be lost. For example, the question about skin irritants (If a job involved working with skin irritants could you do that?) picks up a level of detail the may be critical to whether a person can do a job or not. A future version of AMAS could sub-divide the current format of AMAS into smaller chunks that can be completed at intervals rather than attempting to tackle all the questions at once. This would overcome the issue of people with shorter attention spans as well as providing an opportunity to take a break whenever needed.

5.2.3 AMAS interviews with not-working adults

A total of 20 interviews were carried out with adults who were not working. These people ranged from 25 to 57 years of age. Again, some of these people had stated disabilities, others were people who had not been in employment for some time and were looking to return to work.

Although not all of these people had defined disabilities, some of the conditions they listed included:

- Back problem
- Fatigue syndrome
- Hearing loss
- Head injury
- Learning disability.

As before, the interviewer completed the person ability assessment with the individual then discussed a job goal for completion of the job activity assessment. Results of the matches are shown below.

Not working adults

No	Job Goal	Good matches	Simple resolutions	Creative resolutions
1	Hospital records assistant	75	3	0
2	School assistant	73	5	0
3	Car delivery driver	63	10	5
4	IT	69	9	0
5	Power boat instructor	40	38	0
6	Personal advisor	60	15	3
7	Youth support worker	68	9	1
8	General office assistant	44	29	5
9	CAD - architecture	75	3	0
10	General office assistant	59	18	1
11	Gardener's assistant	55	12	11
12	Warehouse worker	73	3	2
13	Hospital porter	64	12	2
14	Gardening	70	6	2
15	Kitchen assistant	52	25	1
16	Looking after children	76	2	0
17	Alternative Health Therapist	70	8	0
18	Foundry Worker	49	19	10
19	Works Foreman	47	23	9
20	Not available	-	-	-
	Average	**62.2**	**13.1**	**2.7**

In many cases, AMAS highlighted a number of simple and creative resolutions that would be needed in order for the person to successfully do the particular job.

The greater experience of work and employment may indicate the larger number of simple and creative resolutions identified for this group. The number of simple and creative resolutions may also reflect the greater negativity of the group toward their abilities to re-engage in work.

Some people included in this group had stopped working because of their disability, but were still employed. Although AMAS identified a relatively large number of mismatches where simple or creative resolutions would be required, it also provided positive feedback to the individuals that they still had good matches to their old jobs. This might provide an opportunity to identify how they could be reintroduced to their employment and where changes would be necessary.

5.2.4 AMAS interviews with employed people with disabilities

A total of 16 interviews were conducted with people who were in current employment. All of these people had a disability of some sort, and these included:

- Injuries following a road traffic accident
- Diabetes
- Kidney failure
- Blind
- Neck and back problems
- Parkinson's Disease
- Spina Bifida

Having completed the person ability assessment, they provided information about their current job to complete the job activity assessment. This allowed a good assessment to be made of their match. Details of these are shown below.

Employed adults

No	Job	Good matches	Simple resolutions	Creative resolutions
1	Personal Advisor	70	7	1
2	DEA	78	0	0
3	Support Worker	73	5	0
4	Casino Receptionist	58	15	5
5	Artist / Tutor	68	9	1
6	Project Manager	No saved data		
7	Support Worker	No saved data		
8	Development Advisor	No saved data		
9	Policy Advisor	69	8	1
10	Policy Advisor	70	7	1
11	Local Authority Administrator	65	11	2
12	Grocery Assistant	69	9	0
13	Business Advisor	67	11	0
14	Employment Advisor	77	1	0
15	Researcher	54	23	1
16	Lecturer	62	15	1
	Average	**67.7**	**9.3**	**1.0**

Three people were interviewed using an early developmental version of the software and their data were saved but later overwritten by the installation of an upgraded version of the software. Whilst this lost the research data, it provided an important lesson for further development of the software. Additionally, the information gained from their interviews and using the software live was instrumental in the further development of AMAS.

The small number of issues identified under creative resolutions for this group of people reflect their current employment status, where adjustments have already been made to their job or workplace or where individuals have found employment in areas where they match well, allowing them to work successfully. The range of simple resolutions related to changes in job design, or minor adjustments put in place.

5.3 DISCUSSION OF RESULTS FROM STAGE 2

The second stage interviews provided a good means of determining how well AMAS v3 assisted in the assessment of three distinct groups of people. For the people who were not currently employed, it provided both an independent assessment of their abilities, as well as an opportunity to think about what a particular job might involve in practical terms. For some individuals, the process of going through AMAS introduced them to aspects of jobs they had not considered previously and, as such, was an extremely valuable learning experience.

The researchers felt the person ability assessment provided an honest self-report about what the individual can do, or could do with limitation, in relation to specific work behaviours. In all cases, the person ability assessment was carried out before discussing the requirements of a job. This allowed the assessor to discuss with the client their individual abilities without a specific job colouring their judgement. It is evident in some assessments that an individual may exaggerate their abilities if they are particularly keen about a job. Whilst this enthusiasm should not be quashed, it is important that a realistic picture of the person's abilities is sought and the structured nature of AMAS encourages this. Their enthusiasm for a particular job can then be nurtured when the match and resolutions are discussed and, if appropriate, where job performance potential can be taken into account.

Whilst AMAS did assess abilities and jobs in detail, it was noted that there were some occasions that a specific issue was not identified. For example, a worker who used a wheelchair was able to get around the workplace without problems, but was not able to operate the card reader to open the doors, as it was out of his reach. When asked if a job involved getting around the workplace, he answered 'yes' as opening the door was not considered in his mind as part of 'getting around'. This was reflected by other respondents who had mobility problems. They felt they could do many of the activities mentioned if the conditions were favourable, but the work environment often construed to cause them problems. For example, boxes on the floor could prevent a person in a wheelchair from passing along a corridor. The corridor is not the problem, but the housekeeping of the building is.

When completing the job activity assessment, where there was a specific job available (which was the case for all the employed people), it was easy to complete the assessment. However, for these individuals who were not employed or did not have specific job goals in mind, the assessor had to identify specific details about the individual, then discuss a specific job goal. It was felt that using in this way AMAS helped focus individuals' minds on what might be involved in a job in a level of detail not usually explored. It also related directly to the ability assessment just completed and so the relevance was very apparent, particularly when discussed at the match stage where solutions were an issue.

Although AMAS was not originally intended to be used as a way of exploring a job goal and relies on the knowledge of the assessor and the client knowing something about the job, it was found to be a very useful and worthwhile exercise that should not be lost in further development of AMAS. The client's perception of the job was found to promote meaningful discussion, especially where there were mismatches between what the individual thought was involved and what the job actually involved.

However, it is important to remember that any job activity assessments created in this way would not form part of a jobs database. This would be generated using real jobs, by people who were familiar with all aspects of what a job entails.

AMAS was found to be most useful when a specific job in a specific location was being considered, as two jobs with the same title could be very different. This can be especially true for a person with disabilities, as so many other aspects are important, for example management structure, building layout, computer system, lunchtime facilities etc. One of the strengths of AMAS is that it deals with the specific. Through the combination of the assessments of the job and the person, the assessor and client can build up a very useful picture of what the job might entail on a day-to-day basis.

5.4 FURTHER REVISION OF AMAS

Although AMAS v3 used in the stage 2 interviews was effective at collecting information about people's abilities and jobs, there are still changes that would enhance the tool further. For example:

- The further use of gatekeeper questions to target the questionnaire, reducing the less relevant sections of the assessment to a minimum;
- Consideration of whether the questions should relate specifically to the key job objectives, e.g. 'Does the job involve lifting?' or 'Does the job require the person to lift to achieve the key job objectives?'
- Inclusion of supporting photographs or pictures to engage people more in the process, particularly useful for people with learning difficulties where the language used may not be suitable or where the individual requires additional stimulation to keep their interest.
- Separation of assessments into sections that can be completed discretely.
- Provision of a 'Solutions' box at the match output, which could be developed into a solutions database for specific mismatches.
- Refinement of the software to be fully accessible.
- Improvement of the match report in terms of appearance and information displayed.
- Upgrading of the software must not overwrite previously saved data.

6.0 PRESENTATION TO PARTICIPANTS, POTENTIAL USERS AND BENEFACTORS

To collect feedback about the AMAS project, the developments made to the tool and its potential to users, a number of presentations have been made.

A presentation of the project was made to invited parties in December 2002, hosted by IBM, Portsmouth. These included people from:

Enham Trust
Enham Employment Services
IBM
Edris Miller & Associates
Department of Work and Pensions
Scout Enterprises
HSBC
Basingstoke College of Technology
Unum Provident
Switch On To Success
Department for Education and Skills
Bernard Stagg Associates

A presentation was made in January 2003 to the Corporate Medical Group, who advises on medical issues for the Department for Work and Pensions (DWP).

A presentation of the software was made to representatives of Schlumberger-Sema, medical advisers who administer the Personal Capability Assessment for the DWP.

As a result of these presentations, considerable interest and enthusiasm for AMAS's potential was shown and a range of questions about AMAS was collected, including:

- Will a comprehensive database be compiled before the programme can be used?
- How will job brokers be factored into this package, especially when self-referral pertains?
- What is the cost of the package?
- How are people to be trained to use the software?
- Are there plans for a self-assessment version?
- How accessible is this package?
- Who will it be provided to?
- Are there any practice examples of matching people with jobs using this package?
- What are the pilot plans?
- Is the package Internet compatible?
- Does AMAS match a person to only a selected job or test suitability for a range of jobs?
- Will AMAS be used by assessors to complete or will it be filled out by the user?
- Is there any way of changing the font size?
- In the hands of job centre employees, will the system be flexible enough?
- Who confirms the applicants' abilities?
- When will the new version of AMAS come into general use?

- Can organisations buy AMAS for their own use?
- Why no gatekeeper question for hearing?
- What is the roll-out plan for the use of AMAS in the real world? How will this be communicated and promoted?
- How can you monitor whether or not AMAS is being used inappropriately to exclude people from employment?

These issues were all considered and responded to at the presentations, and the ones relevant to the project are discussed in the main body of this report.

7.0 CONCLUSIONS, LESSONS AND OPPORTUNITIES

This research has shown AMAS to be an extremely useful, usable and unique tool for employment assessment of people who are looking for a job or looking to address issues in their employment situation, particularly those who are disadvantaged or have a disability. It provides a common-sense, structured approach that allows an individual to assess their strengths and abilities in the context of work. AMAS flags up areas where there may be an issue, to enable an individual to identify where a resolution may be required in order for them to do a specific job. The individual, their assessor and employer can then consider whether a resolution is needed and what that solution might be.

AMAS provides a structured set of questions about intrinsic job abilities and activities. The questions are neutral in approach and can be asked in a non-threatening way. It is not a standardised measure or test, but an engagement between the assessor and the client that enables the individual to gather together information about themselves and a job. In particular, the person ability assessment engages the client early on, with positive answers giving the individual a boost.

AMAS takes a holistic view of an individual, by focusing on their ability to do a job and not on their disability. At Stage 1, the project focussed on individuals who had primary disabilities, but the tool has been found to be equally useful for people who reported multiple disabilities, short-term injuries, illness or even temporary aches and pains. During the assessment, it is not necessary to ask about an individual's disability or any other condition that may affect their ability to work. The project researchers found that during the course of the interview, people spontaneously presented information about themselves and their ability to do things that related not just to their primary disability, but also other conditions (temporary and permanent). This allowed for a full and focused evaluation of the individual to take place, encompassing the requirements of a job and their ability to do it. There were occasions when individuals were able to see that, although they had problems, the impact on their job goal was less than they thought. Similar comments about enabling individuals to recognise their employment advantages were made by OPs (Occupational Psychologists), for example:

- "Helped him to weigh up the balance of what he had to offer - under his own initiative by responding to the questions."
- "Helped client to evaluate a wider range of skills she has and not over-focus on limitations of dyslexia."

The range of employment assessment uses noted by the OPs for AMAS describes a very versatile instrument. This, along with the views of the researchers and OPs who used AMAS with young and not working/not employed people, indicates the instrument's potential. OPs considered AMAS to be potentially useful for a fifth of all their service users; few other instruments are likely to have such scope.

The AMAS activity assessment (one half of the assessment) can be considered to be a type of job analysis. It provides an overview impression of the job tasks. AMAS operates differently to other job analysis instruments which try to establish the key tasks or activities involved in a job, usually by asking jobholders, managers or supervisors, or expert panels to rate the important tasks or how individuals spend their time. The aim of that type of job analysis is to aid work design selection and/or staff training.

AMAS asks if the task is required. If it is, the individual's ability to do the task is taken into account. If it is not, it need not feature in further discussion. The job activity assessment could be completed by more than one person (the employer, a manager, a worker already in the job) to give a broader and more accurate view about what the job involves.

AMAS provides a vehicle for discussing capability at work, with the information technology giving the opportunity to give immediate feedback on matching. It flags potential mis-matches between an individual's abilities and what activities are required in a job, where solutions are required. These are not adjustments relating to performance, but intrinsic factors. AMAS is one of the few instruments where the match is made on the same items. This is important because it avoids consideration of factors that are irrelevant to the job. Researchers found that AMAS gave an opportunity to discuss specific issues such as "its not on the No 57 bus route." In some cases individuals started to describe the solutions that would help them to do the job. This can then be discussed so that it can be presented to an employer with a view to a reasonable adjustment being agreed. Where individuals are able to clearly show they have the potential to do a job, and employer doubts can be removed, the chances of getting the job increase. This minimises the surprises for the employer when someone starts a new job, as the likely adjustments have already been considered in some detail. AMAS can provide a targeted and structured approach to providing the information that the employer requires, helping to remove or reduce doubt.

It is at the individual level where AMAS has the potential to be particularly valuable. It offers a focused, non-threatening tool for assisted self-report which a person can actively engage in to a level with which they are comfortable. The person ability part of the instrument offers the individual opportunity to expand on any point they judge relevant to themselves, and in this way begin to form a more personalised profile. Whilst engaging initially in a process of reflecting on their general abilities, the process seems to create space for and prompts towards an inward focus, whereby the person can begin to raise and answer questions about useful adaptations or strategies they already use, or may find helpful. The process of completing the person ability assessment can encourage a positive framing of the abilities the person can offer. The cumulative effect of this can facilitate a more focused yet richer discussion of the work goal when engaging in the job activity assessment. Through generating numerous concrete job specific scenarios which can offer a more realistic feel to their considerations, the person can begin to evaluate how important certain activities or skills may be to their job goal. In this context the person is encouraged to make considered judgements about what skills they have already, what skills they would need, or what skills they would be able to perform with various 'solutions'.

One aim of the project was to consider the redesign of AMAS for use with young people. This has particular relevance to the South East for although the economic activity rate for young people is higher in the South East than Great Britain as a whole (73.1% against 69.6% - RDP figures), there are some 50,000 inactive young people aged 16-24 years. There is also evidence that many young people in the region have not worked or been placed on a scheme. These young people may face multiple and complex barriers to accessing work, education or training. Using AMAS, possibly in conjunction with other assessment techniques, may provide an earlier, more accurate identification of problems and thereby consider appropriate solutions.

Experience of the researchers was that, for some young people, the AMAS process was a long process. This resulted in a discussion of whether a shortened version would be beneficial in these cases. The full version enabled the young people to explore aspects of jobs they had not considered and hence a short version may lack detail. Inclusion of a 'save' facility in the software to allow the assessment to take place in chunks, giving opportunity for breaks to be taken as required, may address this issue.

The research has indicated that AMAS has the potential to help young people entering work or training at an early point in their careers or with older people seeking to review their choices. There is scope for people to recall skills obtained in other situations and to consider their fit with the current job goal during the matching process, even if not specifically asked for. The process of AMAS allows for expanding the possibilities during the discourse of the interview according to the wishes and openness of the person engaged in the process.

The research has also considered that AMAS has the potential to help people whose view of their employment opportunities may be influenced by their medical situation. AMAS may help them to reformulate their view of work as part of their future lives. This suggests there are grounds for exploring the use of AMAS before, in conjunction with, and after administration of the Personal Capability Assessment, as well as in transition situations, e.g. individuals progressing from Incapacity Benefit to Job Seekers Allowance or education to employment. This could be extended to the use of AMAS with young people in conjunction with Connexions. Additionally, its use within insurance and compensation claims could be explored.

The potential for AMAS to be used as a self-assessment tool has been debated within the research. This would allow individuals to make assessments of themselves before engaging in the formal process of employment assessment. It may also allow an individual to use AMAS in a careers guidance way, checking out their ability to do a number of different jobs. This process could be undertaken on a web-based system, allowing an individual to access a wide range of jobs. Whilst this process might work well for an individual who has a good self-awareness, there are situations where people do not have a good view of their own ability or potential or are perhaps stuck in one mind-set. In these cases, self-assessment would not be effective; indeed it may just reinforce their own negative opinions. In its current form, AMAS is designed to be used by a trained assessor who has a good understanding of employment and disability, with the correct approach. It may be important to probe further to find out why a respondent gives a particular answer, especially a negative one. This process forms part of the building of a relationship with a client in order to get them to talk about the work themselves. This process is especially important for people with mental health problems. The trained assessed can assist the individual in providing the most accurate and reflective information. As with many assessment tools, there may be times when it is not appropriate to assess a person, or when a particular tool is unsuitable. If AMAS was purely a self-assessment tool, without an assessor to provide guidance, it may be used inappropriately.

The two stages of using AMAS in practice have demonstrated its potential to a wide range of people. It has allowed the original questionnaire to be modified successfully. Additional modifications would enhance the effectiveness of AMAS further still. These include:

- Redrafting of the questions to further reduce ambiguous or complicated language.
- Addition of more questions, particularly in the areas of cognitive abilities.
- Continued development of questions to reflect the changing labour market.
- Inclusion of further gatekeeper questions.
- Removal of bugs in the software.
- Development of the software to ensure it is user-friendly, i.e. that a usable and accessible interface is presented.
- Development of training packages to ensure consistent assessment technique and suitability for purpose.
- Inclusion of a 'save' facility in the software to allow the assessment to take place in chunks, giving opportunity for breaks to be taken as required.

Although beyond the scope of the project, there are still areas where the use and role of AMAS needs further consideration. These include:

- AMAS has the ability to clarify in people's minds the link to work, but they may need help to believe they can make progress.
- Some individuals may need additional help with completing AMAS, particularly those who are not good at self-evaluation.
- The development of AMAS could include a shortened version or several detailed versions for different disabilities or industry sectors.
- The continued use of AMAS may result in the development of a job database. Links to other job databases could be explored.
- The continued use of AMAS may result in the development of a solutions database. This is likely to be job and context specific and have implications for training and reasonable adjustment provision.
- The development of a web based version, which could hold a large database of jobs and solutions.
- Consideration of AMAS alongside the Personal Capability Assessment.

AMAS belongs within a process that enables a person to progress into employment or a new job by adapting their perception of themselves, by empowering them to focus on a job or job goal and by highlighting any solutions that may be required. This research has demonstrated that AMAS has the potential to help a range of people, particularly those who are disadvantaged or have a disability, successfully into employment.

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Appendix A:

AMAS version 2
Person Ability Assessment and Job Activity Assessments used in Stage 1 interviews

MATCHING ABILITIES WITH JOBS

PERSON ASSESSMENT QUESTIONNAIRE

Reference Number	Surname / Interviewer's initials / Interview date

Employee's name	
Place of work	
Current job	
Disability	

Thank you for agreeing to take part in this project. We are trying to make improvements to a system to match people's abilities with jobs. I will be asking you a series of questions about you, for which there are three possible answers: *SHOW FLASHCARD*

☺	No problem	You can do the activity without any problem
😐	Some problem	You have some difficulty with the activity
☹	Major problem	You cannot do the activity

I can give you more details as we go through the interview.

Because we are still working on the project, some of the questions in this interview will be repetitive and others may not be relevant to you; also the answers to some might seems obvious, but please answer them all anyway.

If you need any help as we go along, please ask.

All the information you give me will be in confidence – we won't pass on any individual information that could be traced back to you.

Many thanks for your help. The interview should last about one and a half hours.

MOVEMENT AROUND WORK AREA

The following items cover the ability to get to and from and move around within a work area. Conduct the tests given for each item, observe and question the person. Consider mobility problems and limitations in negotiating environments and obstacles. If mobility aids are used consider ease and ability to move with them in your assessment.

51. WALKING

Can you walk around the work place, e.g. the office, shop floor, canteen and car park?

	No problem	normal ability to walk unaided
	Some problem	difficulty with walking: preferable to walk only short distances e.g. musculoskeletal or cardiovascular reasons
	Major problem	unable to walk or walking even short distances not advised

51A Can you move around the work place?

	No problem
	Some problem
	Major problem

3. ACCESS TO WORK AREA AND SPACE WITHIN IT

Can you negotiate a narrow passageway, including a corner? Narrow = 2ft or 60cm
Consider space requirements of wheelchairs, walking frames, crutches.

	No problem	able to negotiate narrow passageways and obstacles
	Some problem	difficulty in negotiating narrow passageways or obstacles
	Major problem	needs clear space with no obstacles

2. ACCESS TO WORK AREA: RAMPS

Can you negotiate steep and shallow ramps e.g. car park entrances?
Consider use of mobility aids and handrails.

	No problem	able to negotiate a steep ramp (1:12)
	Some problem	able to negotiate a shallow ramp (1:20 to 1:12)
	Major problem	unable to negotiate a ramp

1. ACCESS TO WORK AREA: STEPS AND STAIRS

Can you go up and down a flight of stairs (with banisters)?

	No problem	able to climb one flight of stairs unaided
	Some problem	able to negotiate one or two steps, or a flight of stairs using banister or stick
	Major problem	unable to negotiate any steps

52. CLIMBING

Can you climb up and down a vertical ladder and stepladder?
Consider general need to climb ladders/stepladder during shift.

	No problem	able to climb and descend a vertical ladder
	Some problem	difficulty with a vertical ladder but able to climb short stepladder
	Major problem	unable to climb ladder or stepladder for any reason (e.g. musculo-skeletal, psychological or balance problems)

17. WORK OFF GROUND LEVEL

Can you work at heights?
Consider in relation to working above ground level e.g. loading lorries, maintaining machines, changing light fittings, roof work.

	No problem	able to work at heights
	Some problem	able to work at low heights only, up to 1.5m, or for occasional short periods at higher heights.
	Major problem	should not work off the ground

POSTURE AND MOVEMENT

The following items cover the ability to maintain specific postures during a working day, and to make dynamic movements. Question for limitations, which may be occasional, seasonal or occur after prolonged activity.

40. STANDING

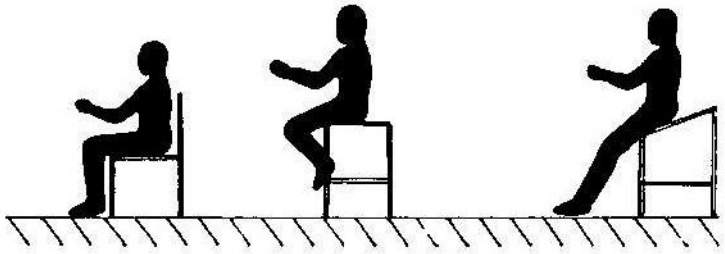
Can you stand upright for all or most of the working day?

	No problem	able to stand upright, unaided, for all or most of working day
	Some problem	difficulty standing or can only stand for part of day or short periods without discomfort, or needs aid
	Major problem	unable to stand upright

38. SITTING UPRIGHT

Can you sit on a seat or sit/stand stool comfortably for all or most of the working day?
Observe and question for jobs with controls/tasks in easy reach.

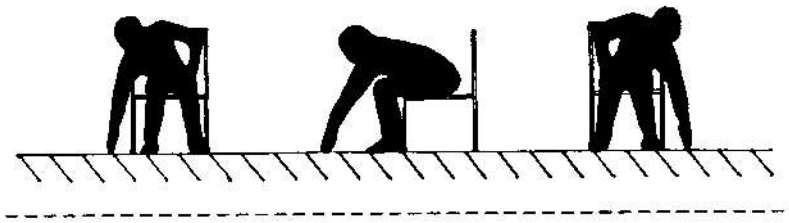
	No problem	able to sit comfortably on a seat or sit/stand stool for all or most of working day
	Some problem	difficulty/discomfort sitting upright or can only sit for part of day or short periods.
	Major problem	unable to sit upright or gross discomfort with seat or sit/stand stool



39. SITTING BENT OVER

Can you touch the floor from a seated position?
Observe and question for normal tolerance to adopting and maintaining a bent over sitting position (i.e. forward lean sitting).

	No problem	able to touch floor forwards and sideways from seated position and hold position (10 seconds +)
	Some problem	unable to hold position, or limited movement in any direction
	Major problem	unable to perform task



37. STANDING OR SITTING

Can you sit or stand in one position comfortably for long periods of time, or do you need to change posture frequently?
Consider the person's need to change position frequently.

	No problem	able to maintain standing or sitting posture comfortably for long periods
	Some problem	needs to change position several times during the working day e.g. hourly
	Major problem	unable to maintain a standing or sitting posture comfortably - needs very frequent changes of posture e.g. more than half hourly

35. WORK SEAT

Do you need a special work seat? If so, what type of adjustment does it need?
Note to interviewers: The answers do not match the question. No = no probs., Yes = major probs.

	No problem	work seat not required
	Some problem	requires a seat but this could be non-adjustable in height
	Major problem	requires a seat which must have adjustable height (e.g. to sit-stand)

36. BACKREST

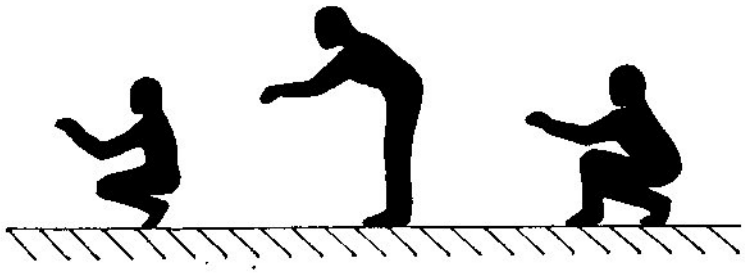
Do you need a special back rest? If so, what type of adjustment does it need?
Note to interviewers: The answers do not match the question. No = no probs., Yes = major probs.

	No problem	backrest is not required
	Some problem	requires a backrest to seat but this could be non-adjustable
	Major problem	requires a seat with an adjustable backrest

43. ABILITY TO WORK AT 1 METRE ABOVE FLOOR LEVEL

Can you work at waist level without sitting on a seat?
Relates to ability to work with head/arms/shoulders at waist level e.g. by stooping, crouching.

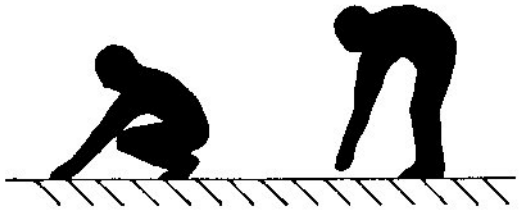
	No problem	able to work at waist level without sitting for extended period
	Some problem	difficulty with getting to or maintaining the position to work
	Major problem	unable to get to or maintain position



42. ABILITY TO WORK AT FLOOR LEVEL

Can you bend down or crouch to work at floor level?

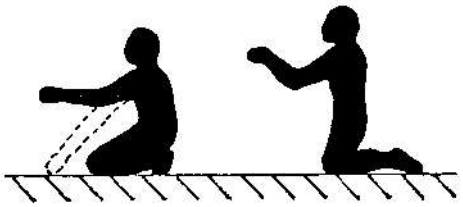
	No problem	able to bend / crouch down and work at floor level for a period (without kneeling)
	Some problem	difficulty getting to floor level or maintaining position
	Major problem	unable to get to floor level or maintain position



41. KNEELING

Can you kneel down to work?

	No problem	able to kneel and manipulate objects for at least 10 secs.
	Some problem	difficulty once in kneeling position.
	Major problem	unable to kneel



50. CRAWLING, SLIDING

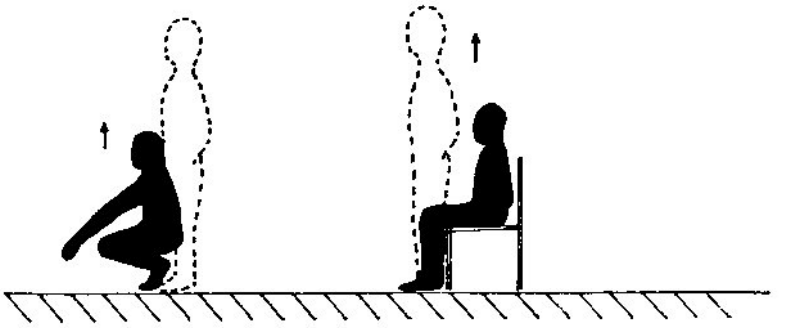
Can you move under a low object, e.g. crawl or slide under a low beam? 0.5 m or approx. knee height

	No problem	able to crawl under a 0.5m table and to slide on back or front for access under a 0.5m beam (e.g. chair)
	Some problem	difficulty with this activity
	Major problem	unable to do this activity

46. ABILITY TO MOVE FROM ONE POSTURE TO ANOTHER: i.e. Posture Changes

Can you move from sitting, kneeling or crouching to standing?

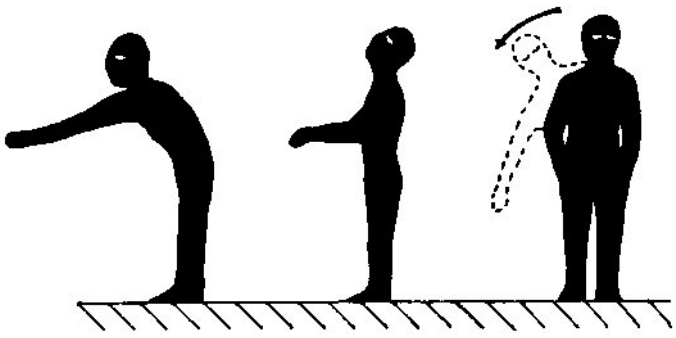
	No problem	able to move from floor level (kneeling, crouching or sitting) to standing, without difficulty
	Some problem	difficulty with above, able to move from chair to standing only
	Major problem	unable to perform



47. BALANCE/EQUILIBRIUM

Can you maintain your own balance without support, even when leaning out, etc?

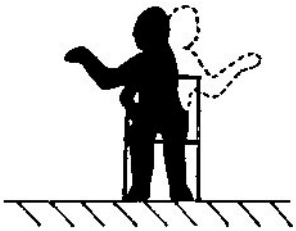
	No problem	able to balance and maintain unstable positions without support
	Some problem	difficulty with above or intermittent balance problems.
	Major problem	unable to perform test



44. TWISTING BODY

Can you twist your body to turn, see and reach objects behind you (when seated)?

	No problem	able to turn, see and reach object behind self, to either side
	Some problem	limited movement when performing above to one or both sides
	Major problem	unable to perform task or very limited or painful movement.



45. TURNING HEAD

Can you turn your head to look behind you, without moving your shoulders / body?

	No problem	able to turn head 90 degrees. from front to side to look over either shoulder
	Some problem	limited or painful movement when performing task to one or both sides
	Major problem	unable to perform

53. LIFTING

Can you lift and carry heavy loads occasionally? What about light loads more frequently?

Consider ability to lift and carry loads. Factors affecting lifting are weight shape, and distribution of load, height lifted, distance carried and frequency of lifting.

	No problem	able to lift 20kg from floor to lm several times per day, or 2kg frequently
	Some problem	difficulty with above
	Major problem	unable or inadvisable to lift as above

STATURE

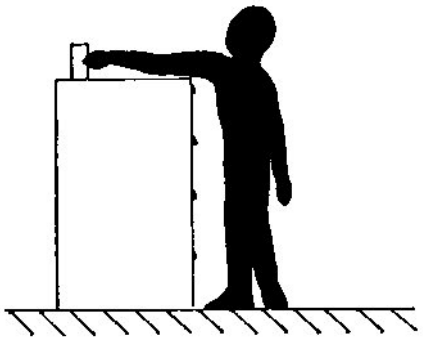
Consider upward functional reach and vision of people with:

- short stature
- wheelchairs
- postural/reach difficulties

48. ABILITY TO REACH ABOVE 1.5m

Can you reach objects on the top of a 4 drawer filing cabinet?

	No problem	can reach objects from middle to rear comfortably
	Some problem	can only reach from front
	Major problem	cannot reach



49. ABILITY TO SEE ABOVE 1.5m.

Can you see objects on top of a 4 drawer filing cabinet?

	No problem	can see objects at middle to rear of top of cabinet comfortably
	Some problem	can see objects at front only, or those further back by standing on tiptoe
	Major problem	cannot see objects on top of cabinet

LOWER LIMBS

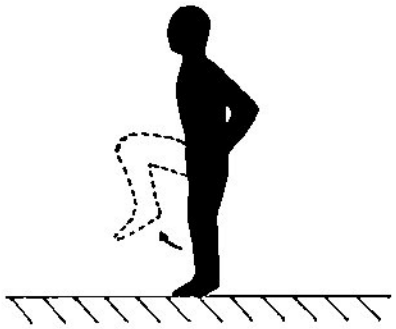
This part of the assessment is to ascertain whether people have full functional use of all parts of the lower limb system. The items cover ability to use and control feet and legs. Conduct the tests given and consider limitations in dynamic power, movement and control that may occur with

- amputations/joint problems muscular conditions
- neurological conditions
- sensory impairments
- pain/circulatory conditions

54. USE OF BOTH FEET/LEGS SIMULTANEOUSLY

Can you move *both legs* through the full range of movement of hip, knee & ankle joints while standing? Can you walk or run on the spot with a high knee lift?

	No problem	able to perform above - fully functional use of both legs
	Some problem	difficulty or pain with above
	Major problem	unable to do above

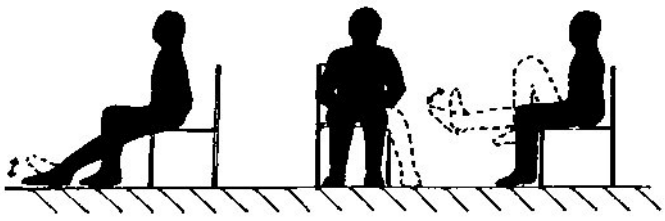


55. USE OF ONE FOOT/LEG

Can you move *one leg* through the full range of movement of hip, knee & ankle joints while sitting?

Assess 'best' leg - whilst sitting, move leg through full range of movement of hip, knee & ankle joints and apply pressure to floor/object with knee flexed & extended

	No problem	able to perform above with one leg one fully functional leg
	Some problem	difficulty / discomfort with above for 'best' leg, or occasional limitation in both legs
	Major problem	unable to do test with either leg



56. USE OF RIGHT FOOT/LEG

Can you move *your right leg* through the full range of movement of hip, knee & ankle joints while sitting?

	No problem	fully functional R foot/leg
	Some problem	functional limitation of R foot/leg including prosthesis
	Major problem	little/no functional use of R foot/leg

57. USE OF LEFT FOOT/LEG

Can you move *your left leg* through the full range of movement of hip, knee & ankle joints while sitting?

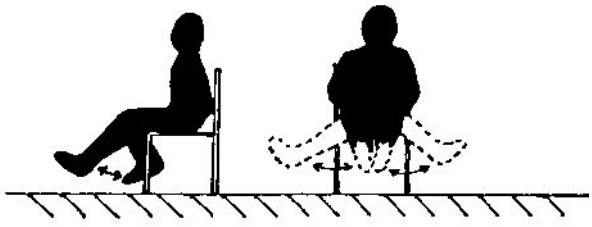
	No problem	fully functional L foot/leg
	Some problem	functional limitation of L foot/leg including prosthesis
	Major problem	little/no functional use of L foot/leg

58. ABILITY TO CO-ORDINATE ONE FOOT/LEG WITH THE OTHER FOOT/LEG

Whilst sitting, can you lift both feet off the ground, flex and extend both knee joints alternately?

Can you rotate your leg, to move your feet sideways (alternately & together)?

	No problem	able to do above, co-ordinating feet/legs
	Some problem	difficulty with one or other of the movements
	Major problem	unable to make either movement



59. DYNAMIC CONTROL OF FEET/LEGS (not including locomotion or strength)

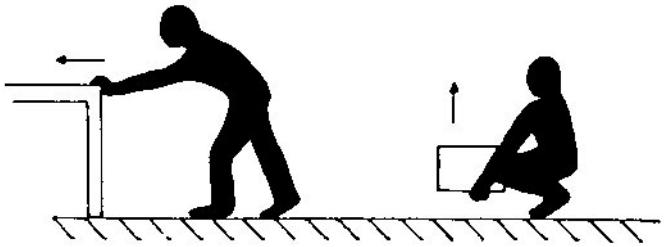
Can you move your feet/legs whilst your hands are occupied e.g. closing a filing cabinet drawer with your feet?

	No problem	able to use both legs
	Some problem	able to use only one lower limb (including functional prosthesis)
	Major problem	unable to use either leg

60. POWER OF LEGS AND PELVIS (not including locomotion) e.g. lifting using the legs or pushing with both legs

Can you lift a heavy object or push a heavy desk/object along the floor?

	No problem	able to use both legs and pelvis during strenuous muscular work
	Some problem	difficulty in using one or both legs/pelvis during strenuous work
	Major problem	unable to use both legs / pelvis during strenuous work

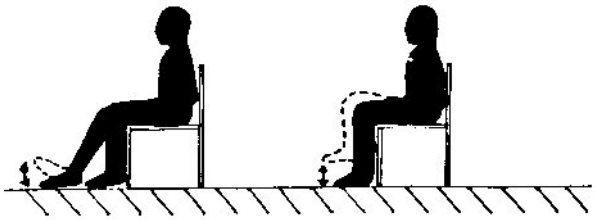


FOOT CONTROLS

27. ON/OFF FOOT CONTROL - discrete operation/single step pedal/on-off e.g. tying machines

While sitting, can you fully depress and release a pedal with your left and right foot in turn?

	No problem	able to fully depress and release pedal with both R & L foot, in turn
	Some problem	difficulty with above with R/L only. Able to fully depress and release pedal with R or L foot, but not both
	Major problem	unable to fully depress and release pedal with either foot



28. VARIABLE FOOT CONTROL - variable position pedal e.g. brake/accelerator

While sitting, can you press on a pedal and hold it in certain positions for a given time, e.g. 30 seconds?

	No problem	able to depress and control pedal with each foot
	Some problem	difficulty with R/L only. Able to depress and control pedal with only one foot, but not with the other
	Major problem	unable to depress and control pedal with either foot

UPPER LIMBS

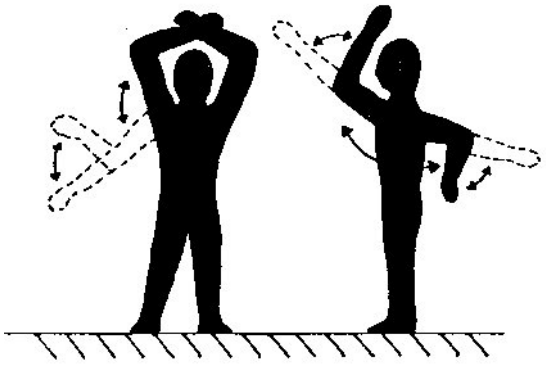
This part of the assessment is to ascertain whether people have full functional use of all parts of the upper limb system. The items cover strength in and ability to use and control fingers, hands, forearms, upper arms and shoulders. Consider limitations in dynamic power, movement and control, which may occur with

- amputations/joint problems,
- muscular conditions,
- neurological conditions,
- sensory impairments,
- pain/circulatory conditions.

61. USE OF BOTH HANDS/ARMS (simultaneously)

Can you use *both right and left arms* through the full range of movement of the shoulder, elbow, wrist and finger joints? e.g. changing light bulb

	No problem	able to move both R & L arms through full range of movements of shoulder, elbow, wrist and finger joints.
	Some problem	difficulty / pain with above
	Major problem	unable to do above with one or both arms



62. USE OF ONE HAND/ARM (assess 'best' arm).

Can you use *one arm* through the full range of movement of the shoulder, elbow, wrist and finger joints?

	No problem	able to do test with one arm i.e. One fully functional hand/arm
	Some problem	difficulty / pain with best arm or occasional limitation with both arms
	Major problem-	unable to do test with either arm

63. USE OF RIGHT HAND/ARM

Can you use your *right arm* through the full range of movement of the shoulder, elbow, wrist and finger joints?

	No problem	fully functional R hand/arm
	Some problem	functional limitation of R hand / arm including prostheses
	Major problem-	little/no functional use of R hand/arm

64. USE OF LEFT HAND/ARM

Can you use your *left arm* through the full range of movement of the shoulder, elbow, wrist and finger joints?

	No problem	fully functional L hand/arm
	Some problem	functional limitation in L hand/arm, including prosthesis
	Major problem	little/no functional use of L hand/arm

65. ABILITY TO CO-ORDINATE ONE HAND/ARM WITH THE OTHER HAND/ARM

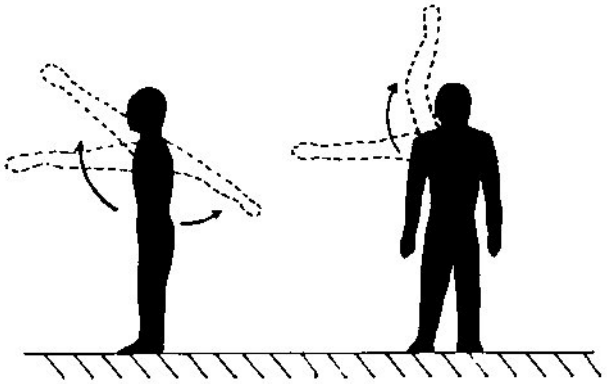
Can you transfer a small object from one hand to the other repeatedly by throwing it? Can you clap your hands?

	No problem	able to use hands simultaneously and sequentially by throwing object from one hand to the other
	Some problem	difficulty with task, can transfer object from hand to hand without throwing.
	Major problem	unable to do either of these, can clap hands only, or unable.

68. DYNAMIC CONTROL OF SHOULDERS (for work requiring movement but not strength)

Can you lift your arms above your head and hold them in positions in all directions?
e.g. traffic control, lollipop person

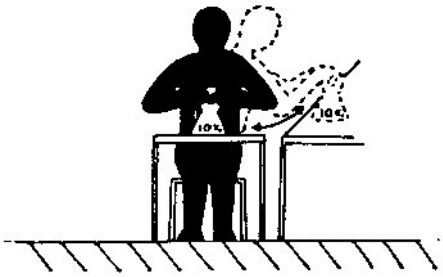
	No problem	able to lift arms from sides above head, and hold positions in all directions
	Some problem	able to perform task with either R or L arm
	Major problem	unable to perform task with either arm



71. POWER OF ARMS/UPPER BODY (e.g. turning heavy crankwheel, applying pressure using a large spanner or crowbar or lifting or pushing).

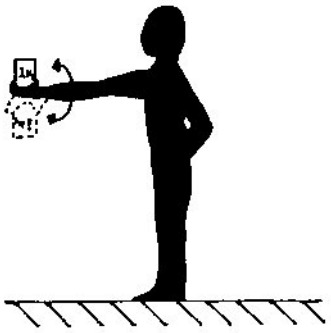
Whilst sitting, can you pick up a heavy weight from a table and move it to the side?

	No problem	able to pick up 10kg from desk height at the side, to position at the front, then replace it at the side again
	Some problem	difficulty with task
	Major problem	unable to perform either task



69. OUTER RANGE (i.e. control and function at extreme reach of arms).
Can you hold a 1kg weight / book at arm's length and rotate your hand for 15 seconds (sitting or standing)?

	No problem	able to perform above task with R and L arms in turn
	Some problem	able to perform task with only one arm
	Major problem	unable to perform task with either arm



70. DYNAMIC CONTROL OF FINGERS/HANDS/FOREARMS
Can you sit with your elbows unsupported and hold a ball of string in one hand, and wind and unwind it with other? Reverse hands and repeat.

	No problem	able to do task both ways, using each hand for winding
	Some problem	difficulty doing task 1 way or with 1 hand
	Major problem	unable to perform task with either hand

72. STRENGTH OF FINGERS/HANDS/FOREARMS
Can you grip firmly?

	No problem	strong and approximately equal grip with R & L hand
	Some problem	weak but equal grip strength in R & L, or only able to grip with one hand
	Major problem	unable to grip with either R or L hands

66. FINGER/HAND DEXTERITY (motor ability)

Can you transfer small objects (e.g. ball bearings, pins) singly from one place to another with each hand? Can you put a nut onto a bolt and tighten it?

	No problem	high degree of dexterity shown when using each hand
	Some problem	difficulty with task or can perform task with larger objects or one hand
	Major problem	unable to manipulate objects with either hand

67. TACTILE RECOGNITION/DISCRIMINATION (sensory ability)

With your eyes closed, can you identify familiar solid objects or materials using R & L hand in turn (e.g. keys, coins, fur)?

	No problem	able to identify objects by touch
	Some problem	difficulty with task
	Major problem	unable to perform task

PHYSICAL ENVIRONMENT

The following items are used to assess tolerance to environmental conditions and capability in areas of risk. Question people's previous and current exposure to the environments given in each item, and note reported or likely adverse reactions. Consider the advisability of working in particular environmental conditions or with equipment/machinery posing operating risks.

7. HEAT TOLERANCE

Can you work in a hot environment?

	No problem	able to work in unusually hot environment
	Some problem	only occasional exposures to hot environment advised
	Major problem	must not work in hot environment

8. COLD TOLERANCE

Can you work in a cold environment?

	No problem	able to work in unusually cold environment
	Some problem	only occasional exposures to cold environment advised
	Major problem	must not work in cold environment

9. NOISE TOLERANCE

Can you wear ear defenders?

Consider in relation to hearing difficulties (item 81). NB. communication assessed separately.

	No problem	able to wear ear defenders
	Some problem	able to wear ear defenders for short periods only
	Major problem	unable to wear ear defenders

10. AIRBORNE PARTICLES: e.g. dust, powders and grass pollen, or other allergens.

Do you have any allergy to dust, powder, pollen etc?

	No problem	no evidence of allergy to particles of dust, powder, grass pollen
	Some problem	evidence of minor/occasional allergy - only slight or occasional exposure advised
	Major problem	evidence of allergy - must not work in dusty environment

11. GAS OR VAPOURS (e.g. solvents, glue)

Are you affected by low levels of gases or vapours such as glue or solvents?

	No problem	functionally unaffected by legal levels of gases and vapours
	Some problem	minor/occasional symptoms - only slight or occasional exposure advised
	Major problem	severely affected by above, exposure not advised

12. SKIN IRRITANTS

Do you have any allergy to skin irritants such as inks, solvents, grease, oil or glue?

	No problem	no evidence of allergies, normal skin conditions
	Some problem	evidence of minor allergy which can be catered for with protective clothing
	Major problem	skin allergy which precludes working in contact with such substances

13. VIBRATION TOLERANCE: hand/arm

Do you have any problems in your hands or arms from vibration when using power tools?

	No problem	no signs/symptoms reported after using vibrating tools e.g. power tools
	Some problem	some reported signs/symptoms - occasional exposure only advised
	Major problem	severe symptoms - exposure not advised

14. VIBRATION TOLERANCE: whole body

Do you have any problems with your whole body as a result of exposure to vibration?

	No problem	no signs/symptoms reported
	Some problem	some reported signs/symptoms - occasional exposure only advised
	Major problem	severe symptoms reported - exposure not advised

4. SIZE OF IMMEDIATE WORK AREA - ENCLOSED SPACES

Can you work in restricted spaces, such as a lift or booth?
Consider in relation to claustrophobia, or other problems

	No problem	feels able to work in restricted spaces
	Some problem	difficulty working in restricted spaces
	Major problem	feels unable to work in restricted spaces

5. SIZE OF IMMEDIATE WORK AREA – OPEN SPACES

Can you work in open spaces, such as outdoors or in public areas?
Consider in relation to agoraphobia or other problems

	No problem	feels able to work in open spaces
	Some problem	difficulty working in open spaces
	Major problem	feels unable to work in open spaces

RISK FACTORS

6. PEOPLE WORKING IN IMMEDIATE AREA

Can you work in isolation, or do you need people nearby in case of help required after blackouts, fits etc?

	No problem	can work in isolation
	Some problem	advisable to have people within sight or sound e.g. 5m.
	Major problem	advisable to have people within arms reach

15. POTENTIAL RISKS FROM ENVIRONMENT OR OTHERS

Do you have any conditions, such as haemophilia or brittle bones, that may lead to a major problem if you suffer a minor accident?

	No problem	able to cope with a job in an area of risk, no condition present to preclude such work
	Some problem	not advisable to work in an area of risk - some problem/intermittent condition/treatment
	Major problem	unable to work in an area of risk because condition present for which minor injuries may lead to major problems e.g. haemophilia, brittle bones

16. JOB RISKS ASSOCIATED WITH EQUIPMENT/MACHINERY

Do you have any conditions that would restrict your ability to operate machinery or equipment?
e.g. blackouts, epilepsy, the effects of medication, or cognitive behaviour problems

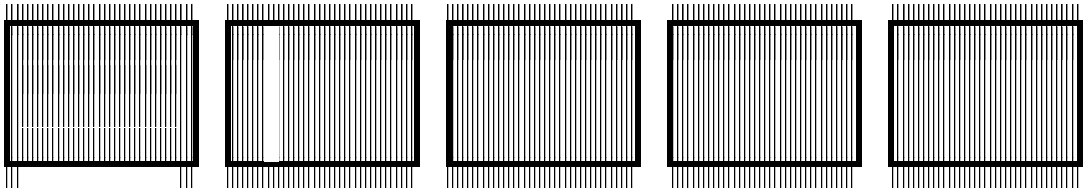
	No problem	can operate machinery or equipment which is potentially hazardous to self or others
	Some problem	can operate machinery or equipment which has risk to self, none to others. Tendency to loss of consciousness, but under good control (no episodes at work in the last 3 months)
	Major problem	should not operate machinery or equipment. Tendency to loss of consciousness or under medication affecting alertness/control

VISION & PERCEPTION

The following items cover perceptual abilities and acuity and field of vision.
Assess this section with corrective glasses/lenses if worn.

73. PATTERN RECOGNITION

Can you recognise patterns? Can you spot the odd one out from these patterns?



	No problem	able to recognise structures/patterns as in above test
	Some problem	difficulty, mistakes or hesitations with task
	Major problem	unable to recognise patterns in above task

74. COLOUR VISION

Are you aware that you have any problems seeing colours?
Has anyone ever mentioned this to you?

	No problem	able to differentiate all colours shown
	Some problem	difficulty discriminating some colours
	Major problem-	poor colour discrimination of most colours

75. RECOGNITION OF SHAPE/SIZE DIFFERENCES

Can you tell the difference between different shapes and sizes of objects?

	No problem	able to visually discriminate differences in the shape and size of test cards/paper clips/box contents
	Some problem	difficulty discriminating mistakes/hesitations when performing task
	Major problem	unable to perform task

76. RECOGNITION OF THE POSITION OF STATIONARY OBJECTS: i.e. distance and depth perception, spatial location, stereoscopic vision)

Can you tell the difference between objects at different distances on a table?

	No problem	able to pick up and place objects at different distances from self
	Some problem	difficulty in judging the position and distance of stationary objects
	Major problem	unable to judge the position and distance of stationary objects

77. JUDGEMENT OF MOVEMENT OF OBJECTS. (i.e. speed, direction, relative speed and rhythm of movement)

Can you judge the movement of objects? e.g.: driving, moving machines etc.

	No problem	able to visually judge the movement of objects
	Some problem	difficulty in judging the movement of objects
	Major problem	unable to judge the movement of objects

78. NEAR VISION

Can you read small print clearly in a book?

	No problem	able to read small print (own language) average or above average near vision
	Some problem	able to read large print, below average near vision
	Major problem	unable to perform task, poor near vision

79. FAR VISION

Can you see objects at a distance clearly?

	No problem	average or above average far vision,< 6/12
	Some problem	below average far vision = 6/12
	Major problem	poor distance vision > 6/12

80. PERIPHERAL VISION

Do you have peripheral vision?

Test: Test degrees of visual field by moving a pencil around the horizontal plane of sight. Subject to look straight ahead and indicate when pencil becomes visible or is lost from sight

	No problem	normal visual field
	Some problem	reduced visual field at periphery, or normal in one eye only
	Major problem	tunnel vision, or foveal vision only

HEARING & COMMUNICATION

This section covers ability to communicate via hearing, speech, lipreading, signing, hand signals and the written word. Consider also the ability to relate to others. Conduct the given tests and observe and question regarding need for communication and/or teamwork in previous and current jobs.

81. HEARING

Can you hear?

Consider in relation to discriminating speech, sound differences, and directional hearing, with hearing aid if worn. **Test:** As levels below, normal speech delivered from behind at 2/3m, and test for directional hearing by identifying clapping with eyes closed

	No problem	no hearing difficulties with above
	Some problem	difficulty with either or both tests
	Major problem	unable to hear speech or identify direction of sounds

82. WORK WITH OTHERS

Are you able to work with others in a pair or a team?

Consider ability of the individual to work with others, e.g. in pair or as part of a team, bearing in mind social skills, psychological disorders.

	No problem	able to work with others in a pair or a team
	Some problem	some problems working with others in a pair or a team
	Major problem	unable to work with others in pair and team

83. COMMUNICATION

Can you communicate fluently by speaking and hearing or lipreading & signing?

	No problem	can communicate fluently by speaking and hearing or lipreading & signing
	Some problem	difficulty in communicating
	Major problem	unable to communicate or only very simple gestures or words

84. SPEECH

Can you speak clearly and converse fluently with others?

	No problem	able to articulate clearly and converse fluently
	Some problem	speech difficulties -dysarthria, dysphasia or any characteristic of speech which may cause difficulties for the listener
	Major problem	aphasia, unintelligible speech

85. HAND SIGNALS

Are you able to communicate by means of hand signals e.g. guiding lorries into parking bay?

	No problem	able to communicate by means of hand signals e.g. guiding lorries into parking bay.
	Some problem	difficulty using hand signals
	Major problem	inability to use hand signals

86. WRITING

Can you write legibly, conveying meaning to others?

	No problem	able to write legibly conveying the meaning
	Some problem	difficulty with writing, but meaning conveyed
	Major problem	unable to write, or writing illegible

87. READING

Are you able to read and understand written information e.g. instructions?

	No problem	able to read and understand written information e.g. instructions
	Some problem	difficulty with and/or comprehension reading
	Major problem	unable to read or unable to comprehend appropriate written material

COGNITION

The following items cover cognitive abilities including numeracy, intellect and learning, adaptability and responsibility.

88. COUNTING

Can you count and put several large numbers in order accurately?

	No problem	can count and put several large numbers in order accurately
	Some problem	has difficulty with above, can count from 1 to at least 10
	Major problem	unable to count to 10

89. CALCULATING

Can you multiply or divide simple numbers (e.g. 200 - 5, 7 x 9) or more complicated numbers (e.g. 62 x 14, 189 — 13) and add and subtract? You can use mental calculation, pen and paper or calculator, as preferred.

	No problem	can multiply or divide simple numbers (e.g. 200 - 5, 7 x 9) or more complicated numbers (e.g. 62 x 14, 189 — 13) and add and subtract
	Some problem	has difficulty with above, but can add and subtract numbers
	Major problem	cannot add or subtract

90. ALERTNESS/AWARENESS

Can you stay alert? e.g. to operate a machine or to perform a job at acceptable rate/standards (including any affects of medication)

	No problem	able to cope with tasks requiring individual to be constantly alert
	Some problem	difficulty in coping with tasks requiring individual to be constantly alert
	Major problem	unable to cope with tasks requiring individual to be constantly alert

NOTES

How much do/did you have to be on the watch for things? e.g. for mistakes/ machinery going wrong? people getting in the way? People wanting you? Do you have any problems staying alert?
Example: any quality control job would require Level 1 (no problem).

91. CONCENTRATION e.g. vigilance during quality control, machine setting, or monitoring of sensitive processes.

Can you concentrate easily?

	No problem	able to cope with tasks requiring concentration
	Some problem	difficulty in coping with tasks requiring concentration
	Major problem	unable to cope with tasks requiring concentration —easily distracted

NOTES

Question on current and previous jobs. How much do/did you have to concentrate in your job? Do you get tired or bored? How do you feel about it? Do you have any problems concentrating?

92. ACCURACY (relate to the stress experienced in performing a task)

Can you cope with tasks requiring accuracy and no mistakes?

	No problem	able to cope with tasks requiring an accurate output no mistakes
	Some problem	difficulty in coping with tasks requiring an accurate output, mistakes made &/or performed hastily
	Major problem	unable to cope with tasks requiring an accurate output, many mistakes &/or very slow

NOTES

Assess partly on responses to previous items (e.g. shape/size differences, stationary objects)
How accurate do/did you have to be in your job? Use relevant examples.
How many do you have to count/stack them in?
Does it have to be exact, can it be 25 or 23, 50 or 55?
Do you have to look for mistakes e.g. print/creasing/cutting lines?
Take into account speed - accurate but slow would indicate Some problem.

93. DIVIDED ATTENTION

Can you cope with tasks requiring divided attention?

	No problem	able to cope with tasks requiring divided attention
	Some problem	difficulty in coping with tasks requiring divided attention
	Major problem	unable to cope with tasks requiring divided attention

NOTES

Question on current and previous jobs.
Do/did you have to attend to more than one thing at once?
How do you feel about it?
Do you have any problems dividing your attention?

94. TYPE OF INSTRUCTIONS

Can you use your own initiative and need minimal instruction only?

	No problem	can use own initiative; needs minimal instruction only
	Some problem	can cope with several to many complex and less specific instructions
	Major problem	only able to follow few very simple and specific instructions

NOTES

What do they tell you to do on your job? Anything else? Are/were you always given set instructions? Do/did you have to use your own initiative at all? How do/did you find that?

95. TRAINING REQUIRED

Can you learn tasks (which may be complex) requiring several months training/practice?

	No problem	able to learn tasks (which may be complex) requiring several months training/practice
	Some problem	difficulty with above, but can learn tasks (which may be simple) requiring up to a few weeks training/practice
	Major problem	unable to do either of above, can only learn simple tasks requiring a few days repetition

NOTES

Remember when you started this job…How long did it take you to learn the job? (and previous job) and question re other activities

96. MEMORY

Can you remember changing information and apply past experience?

	No problem	able to remember a quantity of changing information
	Some problem	some problems remembering changing information
	Major problem	unable to remember changing information

NOTES

Do/did you have to remember a lot in your job?
Do you have to treat some products differently?
Do you have any problems remembering things?
Example: stitchers need to be able to remember to change the stitch length. Machine operators need to remember the behaviour of different types of materials, and how to handle them.

97. ADAPTABILITY TO SPECIAL INSTRUCTIONS

Can you cope with changes in your normal work procedure?

	No problem	able to cope with frequent instructions implying changes in work procedure
	Some problem	able to cope with occasional instructions implying changes in work procedure
	Major problem	unable to cope with instructions implying changes in work procedure

NOTES

How often are/were you told to do something different in your job?
e.g. change a procedure/do a different job. Are you ever told to do something different?
How do you feel about this?

98. WORKING PACE REQUIRED DURING THE SHIFT

Can you alter your work pace and cope with high demand peaks?
Consider stress, fear of machinery, medication.

	No problem	able to alter work pace and can cope with high demand peaks
	Some problem	able to work at steady continuous pace, not advisable to subject to high demand peaks
	Major problem	unable to be machine paced - only able to work at own pace

NOTES

Can/could you work at your own pace on this job? Do you have to keep up with e.g. a machine/belt
Is it automatic? Do you start it each time? How often? How do you feel about this?

99. DECISION COMPLEXITY

Can you make decisions easily, e.g. deciding what to do if your machine goes wrong?

	No problem	able to formulate decision strategies
	Some problem	able to recognise and cope with several different information inputs and translate these into appropriate action, but not able to formulate decision strategies
	Major problem	able to act upon straight relationships between information and action only

NOTES

How straightforward is your job? Does (e.g. the machine) go wrong? What happens/what do you do then?

100. TIME PRESSURED DECISIONS

Can you make decisions when in a hurry?
Consider stress, medication.

	No problem	able to cope with making decisions when under time pressure
	Some problem	difficulty in coping with making decisions when under time pressure
	Major problem	unable to cope with making decisions when under time pressure

NOTES

Do/did you have to make decisions in a hurry? Is/was there time pressure on you?
How do/did you feel about this?

101. RESPONSIBILITY FOR CHECKING OWN OR OTHERS WORK

Can you take responsibility for checking your own work or others' work?

	No problem	can take total responsibility for checking work
	Some problem	can take partial responsibility for checking work, but needs to be re-checked.
	Major problem	unable or unwilling to be given responsibility for checking work

NOTES

Who checks the work you do? Do/did you check anybody else's work?
How do/did you feel about that? How do you feel about taking responsibility for checking work now?
Would you: rather not/take partial/take full responsibility?

102. RESPONSIBILITY FOR WORK SCHEDULING

Can you take responsibility for scheduling your work, e.g. planning when you do things and what needs doing first? Consider stress, medication.

	No problem	able to take major responsibility for work scheduling
	Some problem	not advisable to give responsibility for work scheduling — only minor or infrequent occurrence
	Major problem	unable or unwilling to be given any responsibility for work scheduling

NOTES

Question on current and previous jobs. Who schedules your work? i.e. organises what is done next.
How do you feel about that? How do you feel about taking responsibility for scheduling work? Would you: rather not/take partial or occasional only/like to take full responsibility?

103. RESPONSIBILITY FOR TIME LOSSES.

Can you take responsibility for time losses in your work? e.g. things being delayed, missed deadlines etc
Consider in relation to stress, medication.

	No problem	able to take major responsibility for time losses
	Some problem	not advisable to give responsibility for time losses - only minor or infrequent occurrences
	Major problem	unable or unwilling to be given any responsibility for time losses

NOTES

Are/have you been responsible for getting work out by a certain time?
Who takes responsibility for time losses? How do you feel about it?
Could you: take no responsibility/occasional only/major responsibility?

CONTROLS & DISPLAYS

This section is to ascertain whether people can operate various controls and displays. Consider physical ability to see and operate controls and displays, but also consider cognitive ability to understand consequences of control and display positions.

CONTROLS

18. PUSHBUTTON

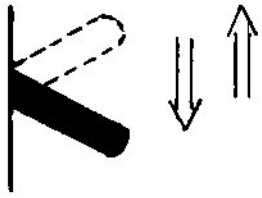
Can you operate push buttons with left and right hands?

	No problem	able to operate all test pushbuttons with both hands
	Some problem	difficulty with operating one or more test pushbuttons with either or both hands
	Major problem	unable to operate any one or more pushbuttons

19. FLICK/TOGGLE SWITCH

Can you operate flick or toggle switches with left and right hands?

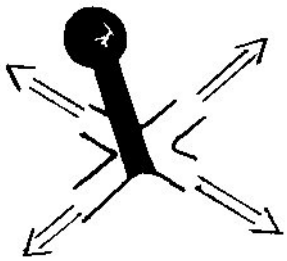
	No problem	able to operate all test flick switches with both hands
	Some problem	difficulty operating one or more test flick switches with either or both hands
	Major problem	unable to operate any one or more test flick switches

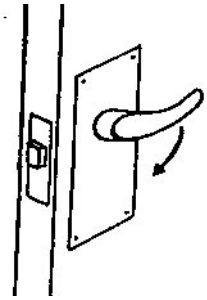


20. LEVER

Can you operate levers and handles with left and right hands?

	No problem	able to operate all test levers with both hands
	Some problem	difficulty operating one or more test levers with either or both hands
	Major problem	unable to operate any one or more test levers

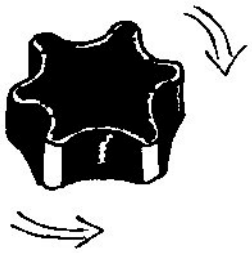




21. KNOB/ROTARY SELECTOR/KEY

Can you turn knobs and dials in both directions and with left and right hands?

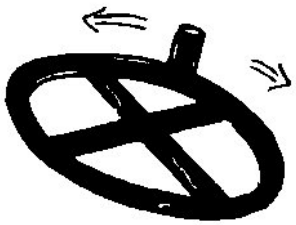
	No problem	able to operate all test knobs with both hands
	Some problem	difficulty with operating one or more test knobs with either or both hands
	Major problem	unable to operate any one or more test knobs



22. SMALL HAND WHEEL/SMALL CRANK WHEEL

Can you operate a small hand wheel in both directions and with left and right hands?

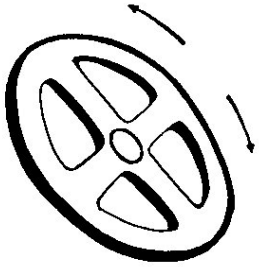
	No problem	able to operate small handwheel with both hands
	Some problem	difficulty with operating small handwheel/crankwheel with either or both hands
	Major problem	unable to operate small handwheel /crankwheel



23. LARGE CRANK WHEEL/FLY WHEEL

Can you operate a large hand wheel in both directions and with left and right hands?

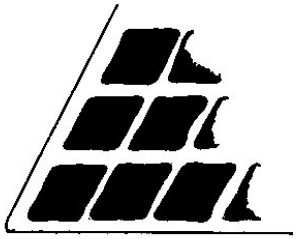
	No problem	able to operate large crankwheel with both hands
	Some problem	difficulty with operating large crankwheel with either or both hands
	Major problem	unable to operate large crankwheel



24. KEYBOARD

Can you operate a keyboard? Can you use your left and right hands and using all digits?

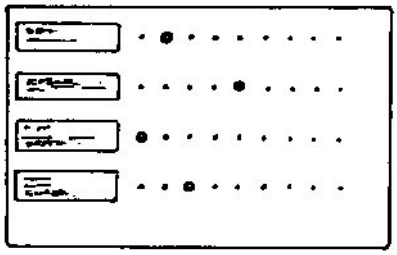
	No problem	able to operate a keyboard with both hands, all digits
	Some problem	able to operate a keyboard with one or a number of digits (e.g. index fingers)
	Major problem	unable to operate a keyboard



25. PEGBOARD

Can you set up pegs in a board with your left and right hands? e.g. pocket chess, cribbage, solitaire

	No problem	able to set up a pegboard with both hands
	Some problem	difficulty setting up a pegboard with either or both hands
	Major problem	unable to set up a pegboard



TOOLS

26. HANDTOOLS

Can you use hand tools, such as a hammer, pliers, spanners, tweezers, screwdriver or use a key in a lock, with left and right hands?

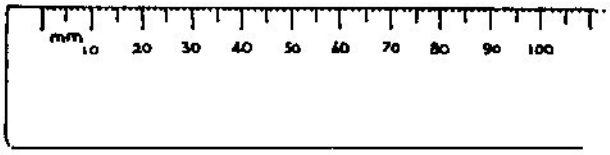
	No problem	able to use handtools with both hands
	Some problem	difficulty using handtools with either or both hands
	Major problem	unable to use handtools

DISPLAYS

29. MANUAL MEASUREMENT e.g. use of ruler, scales

Can you read and understand small scales on a ruler?

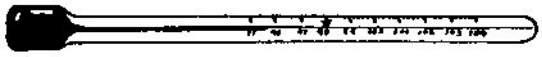
	No problem	can read and understand small scales - understands concept of decimals
	Some problem	can read and understand part of a scale — e.g. whole centimeter scale only
	Major problem	cannot read and / or understand scales

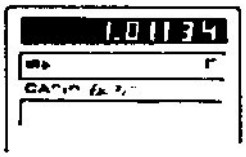


30. ANALOGUE OR DIGITAL DISPLAYS

Can you read and understand complex displays? e.g. car dashboard instruments, several dials, digital clocks, stereo

	No problem	can see and interpret complex analogue or digital displays (eg several dials or numeric readouts together)
	Some problem	can see and interpret only 1 analogue or digital display at a time (e.g. dial for machine speed)
	Major problem	cannot see and/or interpret analogue or digital displays

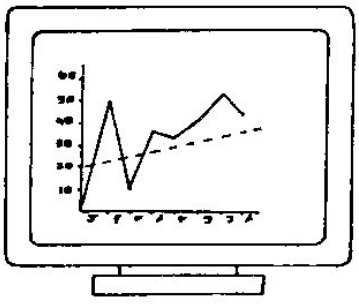




31. VISUAL DISPLAY UNIT

Can you understand complex information on a computer screen, like the graph below?

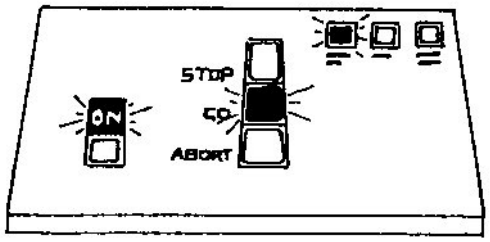
	No problem	can see and interpret complex output on visual display unit, or use frequently
	Some problem	can see and interpret simple output on visual display unit or use occasionally
	Major problem	cannot see and/or interpret output on visual display unit



32. LIGHTS AS INDICATORS

Can you interpret sequences of different coloured flashing lights?

	No problem	can see and interpret sequence of different coloured flashing lights
	Some problem	can see and interpret a single on/off light
	Major problem	cannot see and/or interpret any lights as indicators



33. AUDITORY INFORMATION

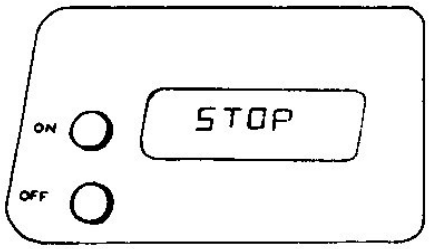
Can you hear and understand the difference between several different pitched sounds?

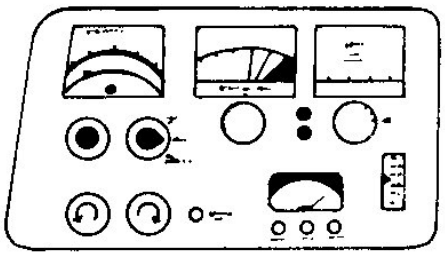
	No problem	can hear and understand difference between several different pitched sounds
	Some problem	can hear and understand significance of constant sound (e.g. siren for break, firebell)
	Major problem	cannot hear and / or understand any auditory information

34. CONTROL AND DISPLAY COMPLEXITY

Can you understand and interpret complicated controls and displays (e.g. control panel, VDU keyboard)?

	No problem	can understand and interpret complicated controls and displays (e.g. control panel, VDU keyboard)
	Some problem	can understand and interpret simple controls and displays, (e.g. knob to control machine speed)
	Major problem	can at best understand an on/off switch





FEEDBACK PAGE

Do you enjoy your job? Main likes and dislikes

Is there anything about your job or your ability to do it that wasn't covered in this interview today?

For example:
Team working
Meeting new people
Communication
Relationships with supervisors or managers
Working with the public
Working with people from other organisations
Travelling as part of your job
Problem solving
Working under pressure / stress

Is there anything you find difficult at work that wasn't covered today?

Do you expect to be doing the same job in 6 months time? If not, why?

Are there any attitudes amongst your colleagues or manager that have an impact on your performance?

Have you agreed any 'reasonable adjustments' with your employers that are currently in place?

Thank you very much for your help with this interview and the project.
We hope its been useful to you too.

All the information you have given us is in confidence –
We won't pass on any individual information that could be traced back to you.

Please would you also fill in the self-assessment questionnaire? We can help you with this if you need. We can even go through it now with you if you would like. Other wise, please send it back to us in the envelope provided. THANK YOU

MATCHING ABILITIES WITH JOBS

WORK ENVIRONMENT QUESTIONNAIRE

Reference Number	Surname / Interviewer's initials / Date of interview

Employee's name	
Place of work	
Current job	

ACCESS

1. ACCESS TO WORK AREA: Steps / stairs

Level ☐ Few steps ☐ Staircase ☐

2. ACCESS TO WORK AREA: Ramps

Level ☐ Shallow ramp (1:20 to 1:12) ☐ Steep ramp (more than 1:12) ☐

3. ACCESS TO WORK AREA & SPACE WITHIN IT: Consider requirements of wheelchair, walking frame, crutches

Clear space, no obstacles ☐ Some obstacles or narrow passage ☐ Narrow restricted space with obstacles ☐

WORKSTATION: AREA

4. SIZE OF IMMEDIATE WORK AREA – RESTRICTED SPACES: Consider work areas such as lifts, booths, etc which might induce claustrophobia or other problems

N/a ☐ Occasional requirement to work in very restricted / crowded space ☐ Frequent requirement to work in very restricted / crowded space ☐

5. SIZE OF IMMEDIATE WORK AREA – OPEN SPACES: Consider work areas such as large open warehouses, outdoors, public areas, etc, which might induce agoraphobia or other problems

N/a ☐ Occasional requirement to work outdoors or in very open spaces ☐ Frequent requirement to work outdoors or in very open spaces ☐

6. PEOPLE WORKING IN IMMEDIATE AREA: Consider in relation to needing help in case of a blackouts, fits etc

Within arms reach ☐ In vicinity within sight or sound e.g. 5 metres ☐ Isolated on occasions ☐

PHYSICAL

7. EXTREME HEAT: e.g. kitchens, paint drying, heat glueing

N/a ☐ Occasional exposure ☐ Frequent exposure ☐

8. EXTREME COLD: e.g. stores, quick chill processing

N/a ☐ Occasional exposure ☐ Frequent exposure ☐

9. NOISE: Consider the need to wear ear defenders as required by HSE

N/a ☐ Occasional requirement ☐ Frequent requirement ☐

10. PRESENCE OF AIRBORNE PARTICLES: e.g. dust, powders, grass pollen

N/a only settled dust ☐ Some exposure ☐ Great exposure ☐

11. PRESENCE OF GAS AND / OR VAPOURS: e.g. solvents, glue

N/a ☐ Some exposure ☐ Great exposure ☐

12. PRESENCE OF SKIN IRRITANTS: e.g. inks, solvents, grease, oil, glues

N/a ☐ Irritants present but protective clothing reduces skin contact ☐ Skin contacts with possible irritants ☐

13. VIBRATION – HAND / ARM: e.g. sewing, woodworking, hand trolley

N/a ☐ Occasional exposure ☐ Frequent exposure ☐

14. VIBRATION – WHOLE BODY: e.g. fork lift trucks

N/a ☐ Occasional exposure ☐ Frequent exposure ☐

RISK FACTORS

15. POTENTIAL RISK IN AREA FROM ENVIRONMENT & OTHERS: e.g. possibility of accidents or injury from objects around the workplace

N/a ☐ Occasional exposure ☐ Frequent exposure ☐

16. JOB RISKS ASSOCIATED WITH HANDLING EQUIPMENT / MACHINERY: e.g. consider consequences of operator blacking out, misusing equipment, incorrect machine setting

N/a ☐ Possible consequences for individual ☐ Possible consequences for others ☐

17. WORK OFF GROUND LEVEL: loading lorries, changing light fittings, maintaining the roof

N/a ☐ Work at up to 1.5m or infrequent requirement to work higher ☐ Frequent requirement to work higher than 1.5m ☐

HAND CONTNROLS

Consider the requirement to operate one or several controls, including the on/off controls and displays. NB Remember to look for and ask about controls not immediately obvious or out of view.

18. PUSHBUTTONS:

N/a ☐ Some requirement ☐ Major requirement ☐

19. FLICK SWITCH OR TOGGLE SWITCH:

N/a ☐ Some requirement ☐ Major requirement ☐

20. LEVER:

N/a ☐ Some requirement ☐ Major requirement ☐

21. KNOB OR ROTARY SELECTOR SWITCH: Includes keys, dials

N/a ☐ Some requirement ☐ Major requirement ☐

22. SMALL HANDWHEEL: Includes small crankwheel

N/a ☐ Some requirement ☐ Major requirement ☐

23. LARGE CRANKWHEEL OR FLYWHEEL:

N/a ☐ Some requirement ☐ Major requirement ☐

24. KEYBOARD:

N/a ☐ Some requirement, e.g. 1 or 2 finger operation ☐ Major requirement ☐

25. PEGBOARD:

N/a ☐ Some requirement ☐ Major requirement ☐

TOOLS

26. HANDTOOLS: e.g. hammer, spanner, pliers, tweezers, screwdrivers

N/a ☐ Some requirement ☐ Major requirement ☐

FOOT CONTROLS

27. DISCRETE FOOT CONTROL: i.e. operated singly or repeatedly, e.g. on/off pedal, single step pedals on tying machines, and single stitch operation on wire stitching machines

N/a ☐ Some requirement ☐ Major requirement ☐

28. CONTINUOUS FOOT CONTROL: i.e. to vary speed / pressure according to length of travel, e.g. accelerator / brake pedal, sewing machine pedal, or to vary number of operations according to length of time depressed

N/a ☐ Some requirement ☐ Major requirement ☐

29. MANUAL MEASUREMENT: e.g. use of ruler, scales

N/a ☐ Some requirement e.g. whole numbers ☐ Major requirement, e.g. fractions / decimals ☐

30. ANALOGUE OR DIGITAL DISPLAYS: e.g. dials, clocks

N/a ☐ Some requirement, e.g. 1 display only ☐ Major requirement, e.g. several displays at once ☐

31. VISUAL DISPLAY UNIT: e.g. computer monitor, pictorial display, CNC machine

N/a ☐ Some requirement, e.g. occasional or simple output ☐ Major requirement, e.g. frequent use of complex output ☐

32. LIGHTS AS INDICATORS:

N/a ☐ Some requirement, e.g. on/off light ☐ Major requirement, e.g. sequence of lights ☐

33. AUDITORY INFORMATION: siren, machine malfunction warning, fork lift truck, lorry reversing

N/a ☐ Some requirement, e.g. 1 or few constant sounds ☐ Major requirement, e.g. several different pitched sounds ☐

COGNITION: TRAINING AND INTELLECT

34. CONTROL & DISPLAY COMPLEXITY: i.e. interpretation and use of controls and displays

None or on/off switch only ☐ Simple controls e.g. knob to control machine speed ☐ Complex controls, e.g. control panel, keyboard ☐

WORKSTATION: CONTENTS

35. WORKSEAT: What sort of workseat is provided?

Adjustable ☐ Non-adjustable ☐ None ☐

36. BACKREST: What sort of backrest does it have?

Adjustable ☐ Non-adjustable ☐ Major requirement ☐

PHYSICAL WORK DEMANDS

POSTURE

If all of a job can be done with the jobholder choosing whether to sit or stand, tick 'very feasible' for Item 37. Items 38-40 would then be n/a. If it is 'not feasible' for the job older to choose, then this will probably be because of a major requirement to sit or stand. However, there will be some jobs where standing and / or sitting is necessary for some of the time, but the rest of the time it is feasible to choose. In this case, tick the middle box for Item 37 and 'some' for items 38-40 as appropriate.

37. STANDING OR SITTING: i.e. job can be carried out equally well by either standing or sitting or alternating between one and the other.

Very practical ☐ Practical on some parts of the job or with some alteration ☐ Not practical ☐

38. SITTING UPRIGHT:

N/a ☐ Some requirement ☐ Major requirement ☐

39. SITTING BENT OVER: e.g. sitting bending forward over workbench or machine

N/a ☐ Some requirement ☐ Major requirement ☐

40. STANDING:

N/a ☐ Some requirement ☐ Major requirement ☐

41. KNEELING:

N/a ☐ Some requirement ☐ Major requirement ☐

42. NEED TO WORK AT FLOOR LEVEL: e.g. by sitting, crouching, bending to floor

N/a ☐ Some requirement ☐ Major requirement ☐

43. NEED TO WORK AT 1 METRE ABOVE FLOOR LEVEL: e.g. with head / arms / shoulders at a metre high (approx) by stooping, kneeling

N/a ☐ Some requirement ☐ Major requirement ☐

44. NEED TO TWIST BODY: consider whether twisting the trunk is vital to see / reach objects behind self – can the job be done as efficiently by turning on feet?

N/a ☐ Some requirement ☐ Major requirement ☐

45. NEED TO TURN HEAD TO EITHER SIDE: e.g. to look over the shoulder

N/a ☐ Some requirement ☐ Major requirement ☐

46. NEED TO MOVE FROM ONE POSTURE TO ANOTHER: i.e. job requires individual to move through a variety of postures e.g. crouching, sitting, bending, standing

N/a ☐ Some requirement ☐ Major requirement ☐

47. NEED TO MAINTAIN BALANCE / EQUILIBRIUM: e.g. (not just standing) leaning over while carrying out task

N/a ☐ Some requirement ☐ Major requirement ☐

STATURE

Consider in relation to people small in stature or who use a wheelchair.

48. NEED TO REACH ABOVE 1.5 METRES FROM FLOOR: e.g. stacking items on a pallet / shelf

N/a ☐ Some requirement ☐ Major requirement ☐

49. NEED TO SEE ABOVE 1.5 METRES FROM FLOOR: Consider for example the need to see into cupboards

N/a ☐ Some requirement ☐ Major requirement ☐

MUSCLES: MOVEMENT

50. CRAWLING / SLIDING REQUIRED:

N/a ☐ Some requirement ☐ Major requirement ☐

51. WALKING REQUIRED: That is the need to <u>actually walk</u>, not the need to be mobile

N/a ☐ Some requirement, e.g. around a machine ☐ Major requirement, e.g. around whole of shop floor ☐

52. CLIMBING LADDERS / STEPLADDERS GENERALLY REQUIRED DURING SHIFT:

N/a ☐ Some requirement, e.g. stepladder only or occasional vertical ladder ☐ Major requirement, e.g. vertical ladder or frequent climbing ☐

MUSCLES: DYNAMIC POWER AND STRENGTH

53. LIFTING: Consider shape, size and weight of object plus frequency, duration, carrying distance and height of lift, e.g. floor to bench, bench to pallet

N/a ☐ Some requirement ☐ Major requirement, e.g. 20 kg from floor to 1.5m several times / day <u>or</u> 2kg frequently ☐

54. NEED FOR USE OF BOTH FEET / LEGS SIMULTANEOUSLY: e.g. on same or different controls

N/a ☐ Some requirement ☐ Major requirement ☐

55. NEED FOR USE OF ONE FOOT / LEG: But not specifically right or left – could be either

N/a ☐ Some requirement ☐ Major requirement ☐

56. NEED FOR USE OF RIGHT FOOT / LEG SPECIFICALLY: e.g. to operate a foot control which can only be reached from/on the right side of the machine

N/a ☐ Some requirement ☐ Major requirement ☐

57. NEED FOR USE OF LEFT FOOT / LEG SPECIFICALLY: e.g. to operate a foot control which can only be reached from/on the left side of the machine

N/a ☐ Some requirement ☐ Major requirement ☐

58. NEED TO CO-ORDINATE ONE FOOT / LEG WITH THE OTHER FOOT / LEG: e.g. like using foot controls in a car

N/a ☐ Some requirement ☐ Major requirement ☐

MUSCLES: DYNAMIC CONTROL AND MOVEMENT

59. DYNAMIC CONTROLS OF FEET / LEGS (not for strength): e.g. positioning trolley jack, guiding movement of objects with feet

N/a ☐ Some requirement ☐ Major requirement ☐

MUSCLES: DYNAMIC POWER AND STRENGTH

60. POWER OF LEGS AND PELVIS: (excluding such movements as walking or running) e.g. lifting, pushing or pulling heavy objects

N/a ☐ Some requirement ☐ Major requirement ☐

LIMBS: HANDS/ARMS

61. NEED FOR USE OF BOTH HANDS / ARMS AT THE SAME TIME: e.g. on same or different tasks

N/a ☐ Some requirement ☐ Major requirement ☐

62. NEED FOR USE OF ONE HAND / ARM: But not specifically right or left – can be done with either

N/a ☐ Some requirement ☐ Major requirement ☐

63. NEED FOR USE OF RIGHT HAND / ARM SPECIFICALLY: e.g. to operate a control on the right side of a machine, or to handle a workpiece

N/a ☐ Some requirement ☐ Major requirement ☐

64. NEED FOR USE OF LEFT HAND / ARM SPECIFICALLY: e.g. to operate a control on the left side of a machine or to handle a workpiece

N/a ☐ Some requirement ☐ Major requirement ☐

65. NEED TO CO-ORDINATE ONE HAND / ARM WITH THE OTHER HAND / ARM: e.g. to pass an object from one hand to the other

N/a ☐ Some requirement ☐ Major requirement ☐

66. NEED FOR FINGER / HAND DEXTERITY: e.g. picking up or manipulating small objects, hand sewing, packaging, gear chain assembly

N/a ☐ Some requirement ☐ Major requirement ☐

OTHER WORK DEMANDS

SENSES: TOUCH

67. NEED FOR TACTILE RECOGNITION / DISCRIMINATION: e.g. distinguishing different textures, thickness, quantities, etc by touch

N/a ☐ Some requirement ☐ Major requirement ☐

PHYSICAL WORK DEMANDS

MUSCLES: DYNAMIC CONTROL AND MOVEMENT

68. DYNAMIC CONTROL OF UPPER ARMS / SHOULDERS: (not for strength) e.g. feeding a platen machine with board, general use of upper arms / shoulders for movement and positioning of objects

N/a ☐ Some requirement ☐ Major requirement ☐

69. OUTER RANGE: i.e. control and function at extreme reach of arms (not for strength) e.g. paint /polish spraying using a lightweight spray gun with outstretched arms, holding and manipulating 1kg weight at arms length

N/a ☐ Some requirement ☐ Major requirement ☐

70. DYNAMIC CONTROL OF FINGERS / HANDS / FOREARMS :e.g. positioning items at stitching machines, winding ball of string

N/a ☐ Some requirement ☐ Major requirement ☐

MUSCLES: DYNAMIC POWER AND STRENGTH

71. POWER OF ARMS AND UPPER BODY: e.g. moving a heavy lever, pushing, lifting e.g. 10 kg whilst sitting at a desk from side to front and front to side

N/a ☐ Some requirement ☐ Major requirement ☐

72. STRENGTH OF FINGERS / HANDS / FOREARMS: e.g. gripping objects

N/a ☐ Some requirement ☐ Major requirement ☐

OTHER WORK DEMANDS

SENSES: VISION AND PERCEPTION

73. NEED TO RECOGNISE PATTERNS: e.g. inspection tasks, printing, fault detection

N/a ☐ Some requirement ☐ Major requirement ☐

74. NEED TO RECOGNISE COLOUR DIFFERENCES: e.g. in printing, fabric

N/a ☐ Some requirement ☐ Major requirement ☐

75. NEED TO RECOGNISE SHAPE / SIZE DIFFERENCES OF OBJECTS: e.g. of different products, fault detection

N/a ☐ Some requirement ☐ Major requirement ☐

76. NEED TO RECOGNISE THE POSITION OF STATIONARY OBJECTS: i.e. distance and depth perception e.g. positioning object in correct place on a machine, judgement required when manoeuvring a trolley jack

N/a ☐ Some requirement ☐ Major requirement ☐

77. NEED TO JUDGE THE MOVEMENT OF OBJECTS: i.e. speed, direction, relative speed and rhythm of movement, e.g. driving vehicles, moving machinery

N/a ☐ Some requirement ☐ Major requirement ☐

78. NEED FOR NEAR VISION: (Short distance)

N/a ☐ Large items only, e.g. controls ☐ Small items, e.g. print ☐

79. NEED FOR FAR VISION: (Long distance e.g. 10m or more)

N/a ☐ Some requirement, e.g. recognise objects / people ☐ Major requirement, e.g. to read signs ☐

80. NEED FOR PERIPHERAL VISION: e.g. driving, using hand trolley

N/a ☐ Some requirement ☐ Major Requirement ☐

SENSES: HEARING

81. NEED TO HEAR: Consider the need to hear speech or detect machine faults

N/a ☐ Some requirement ☐ Major requirement ☐

COMMUNICATION

82. WORK WITH OTHERS: Consider the need for and extent of contact with other workers, e.g. working in pairs, team working etc

N/a ☐ Some requirement ☐ Major requirement ☐

83. NEED TO COMMUNICATE: (to understand and to be understood) either by speech and hearing or lip-reading and signing

N/a ☐ Some requirement ☐ Major requirement ☐

84. NEED FOR SPEECH SPECIFICALLY TO CARRY OUT WORK: e.g. for communicating to groups of people

N/a ☐ Some requirement ☐ Major requirement ☐

85. NEED TO USE HAND SIGNALS TO CARRY OUT WORK: e.g. guiding lorries into parking bays

N/a ☐ Some requirement ☐ Major requirement ☐

86. NEED TO WRITE TO CARRY OUT WORK:

N/a ☐ Some requirement ☐ Major requirement ☐

87. NEED TO READ TO CARRY OUT WORK: e.g. reading worksheets, book covers

N/a ☐ Some requirement ☐ Major requirement ☐

COGNITION: NUMERACY

88. NEED TO COUNT TO CARRY OUT WORK: e.g. pagination

N/a ☐ Up to 10 or tallying only ☐ Counting, number recognition ☐

89. NEED TO CALCULATE TO CARRY OUT WORK: e.g. calculating worksheets, setting machines

N/a ☐ Simple, e.g. addition & subtraction only ☐ More complex calculations, e.g. multiplication & division, proportions ☐

COGNITION: TRAINING & INTELLECT

90. NEED FOR ALERTNESS / AWARENESS: e.g. to operate a machine, to perform job at acceptable rate / standard, to avoid risk, or to respond to process of team workers

N/a ☐ Some requirement ☐ Major requirement ☐

91. NEED FOR CONCENTRATION: e.g. vigilance during quality control, machine setting or monitoring of sensitive processes

N/a ☐ Some requirement ☐ Major requirement ☐

92. NEED FOR ACCURACY IN WORK: e.g. in placement of objects, counting machine setting / operating, fault detection

N/a ☐ Some requirement ☐ Major requirement ☐

93. NEED FOR DIVIDED ATTENTION: e.g. monitoring machine displays whilst feeding the machine, monitoring more than one process / person / task at a time

N/a ☐ Some requirement ☐ Major requirement ☐

94. TYPE OF INSTRUCTIONS GIVEN: (in order to carry out the job)

Few very simple & specific instructions ☐ Several complex & less specific instructions ☐ Very general guidelines or goal given, requiring use of initiative ☐

95. TRAINING REQUIRED: (To reach acceptable standard)

Repetition / practice or simple tasks only for a few days ☐ Training/ practice on tasks for up to a few weeks, e.g. range of material / products ☐ Training / practice of skills for several months, e.g. machine setting ☐

96. NEED TO REMEMBER CHANGING INFORMATION FOR THE JOB: (requiring use of memory and application of past experience) e.g. remembering to change tension of sewing machine for different thickness fabrics

N/a ☐ Some requirement ☐ Major Requirement ☐

COGNITION: ADAPTABILITY AND RESPONSIBILITY

97. ADAPTABILITY: i.e. requirement to respond to special instructions implying change in the normal work procedure; e.g. fetch own materials because person who normally does it is unable to do so

N/a ☐ Infrequent ☐ Frequent ☐

98. WORKING PACE REQUIRED DURING THE SHIFT:

Self-paced rate regulated by the individual ☐ Steady continuous, rate regulated by machine, conveyor belt process etc ☐ High demand peaks ☐

99. DIFFICULTY OF DECISION MAKING: i.e. complexity

Straight relationship between information & action only (simple) ☐ Recognition of several different information inputs for action (moderate) ☐ Decision strategies (complex) ☐

100. TIME PRESSURED DECISION MAKING:

N/a ☐ Some requirement ☐ Major requirement ☐

101. RESPONSIBILITY FOR CHECKING OWN OR OTHERS' WORK OUTPUT:

No need to check work ☐ Checks but re-checked ☐ Total responsibility ☐

102. RESPONSIBILITY FOR WORK SCHEDULING:

N/a ☐ Minor or infrequent ☐ Major ☐

103. RESPONSIBILITY FOR TIME LOSSES:

N/a ☐ Minor or infrequent ☐ Major ☐

FEEDBACK PAGE

Please enter any comments about the interview or the questionnaire here. For example, anything missing, questions that need amendment, expansion or removal, etc.

Where did AMAS work well?

Where could AMAS be developed?

Internally: better question phrasing
Giving better guidance on what is being asked / examples

Externally: more questions or areas to be covered?

MATCHING ABILITIES WITH JOBS
EMPLOYEE'S ASSESSMENT OF CURRENT MATCH

Reference Number	Surname / Interviewer's initials / Date of interview
Your name	
Your place of work	
Your current job	
Brief description of your current job	
Brief description of your roles and responsibilities	

Age	25 years and under	
	26-35 years	
	36-42 years	
	43-49 years	
	50-54 years	
	55 years and over	
	Other	
Gender	Male	
	Female	
	Other	

How would you describe your ethnic origin?	
What would you describe as your first language?	

Please assess how well you feel you match in your current job according to the factors on the next page. Please take into account any adaptations or special equipment you currently have in place, or any medication you take to help you. Consider whether the job you do requires each factor and then whether you feel you have those abilities. For example, if there is no requirement to move about the work area and you are not mobile, then this is a good match. If you do need to be mobile but are not, then this is a poor match.

If you need help with completing this form, please get in touch with your supervisor or one of the research team.

Please tick the appropriate box

Your abilities	Good match with job	OK match with job	Poor match with job
Movement around the work area Your ability to walk, go up and down stairs, ramps, ladders, or in passageways			
Posture and movement Your ability to stand, sit, kneel, crawl, work at different heights, balance, twist, turn and lift			
Stature Your ability to see and reach above 1.5m			
Lower limbs Your ability to use one or both legs and feet, with control and strength			
Foot controls Your ability to use a foot pedal, such as a car accelerator, with control			
Upper limbs Your ability to use one or both arms and hands, with control and strength, as well as their finger and hand dexterity			
Physical environment Your ability to work in hot, cold, dusty or noisy places, their tolerance to vibration, working in enclosed spaces or very open spaces			
Risk factors Your ability to work with machinery or equipment, where there is no one around to help them or where they may hurt themselves			
Vision and perception Your ability to see colour, patterns, shapes and sizes of objects, to judge movement, to see things close to them or at a distance and have a full range of vision			
Hearing and communication Your ability to hear, communicate, use hand signals, write, read and interact with other people at work			
Cognition Your ability to be alert, to concentrate, follow instructions, remember things, work at speed, make decisions, work under pressure, take responsibility, understand numbers			
Controls and displays Your ability to use push buttons, switches, levers, knobs, wheels, keyboards, hand tools, to understand displays, lights, control panels, alarms			

All the information you give me will be in confidence –
We won't pass on any individual information that could be traced back to you.
Many thanks for your help. Please now return this in the envelope provided.

MATCHING ABILITIES WITH JOBS

EMPLOYER'S ASSESSMENT OF CURRENT MATCH

Reference Number	Surname / Interviewer's initials / Interview date
Your name	
Employee's name	
Their place of work	
Their current job	
Brief description of their current job	
Brief description of their roles and responsibilities	

Please assess how well you feel this employee matches in their current job according to the factors on the next page. Please take into account any adaptations or special equipment they currently have in place, or any medication they take to help them. Consider whether the job they do requires each factor and then whether the employee has those abilities. For example, if there is no requirement to move about the work area and the employee is not mobile, then this is a good match. If they do need to be mobile, but are not, then this is a poor match.

If you need help with completing this form, please get in touch with one of the research team.

Please tick the appropriate box

Abilities of the employee	Good match with job	OK match with job	Poor match with job
Movement around the work area Their ability to walk, go up and down stairs, ramps, ladders, or in passageways			
Posture and movement Their ability to stand, sit, kneel, crawl, work at different heights, balance, twist, turn and lift			
Stature Their ability to see and reach above 1.5m			
Lower limbs Their ability to use one or both legs and feet, with control and strength			
Foot controls Their ability to use a foot pedal, such as a car accelerator, with control			
Upper limbs Their ability to use one or both arms and hands, with control and strength, as well as their finger and hand dexterity			
Physical environment Their ability to work in hot, cold, dusty or noisy places, their tolerance to vibration, working in enclosed spaces or very open spaces			
Risk factors Their ability to work with machinery or equipment, where there is no one around to help them or where they may hurt themselves			
Vision and perception Their ability to see colour, patterns, shapes and sizes of objects, to judge movement, to see things close to them or at a distance and have a full range of vision			
Hearing and communication Their ability to hear, communicate, use hand signals, write, read and interact with other people at work			
Cognition Their ability to be alert, to concentrate, follow instructions, remember things, work at speed, make decisions, work under pressure, take responsibility, understand numbers			
Controls and displays Their ability to use push buttons, switches, levers, knobs, wheels, keyboards, hand tools, to understand displays, lights, control panels, alarms			

All the information you give me will be in confidence –
We won't pass on any individual information that could be traced back to you.
Many thanks for your help. Please now return this in the envelope provided.

Appendix B:

AMAS version 3
Revised Person Ability Assessment and Job Activity Assessments used in Stage 2 interviews

MATCHING ABILITIES WITH JOBS

ABILITY ASSESSMENT

Thank you for agreeing to take part in this project. We are trying to make improvements to a system to match people's abilities with jobs. I will be asking you a series of questions about you, for which there are three main answers:

☺ You can do the activity without any problem
😐 You have some difficulty with the activity – there is an opportunity to describe the nature of the difficulty
☹ You cannot do the activity

I can give you more details as we go through the interview.

These questions all relate to your ability to do things, in particular whether you could do them as part of a job. Remember, this is not an assessment of your performance in a job, but your general ability to do it, i.e. its whether you **can** do a job, not how well you do it.

Please answer the questions taking into account any aids or medication you come with. This might include glasses or contact lenses, a wheelchair, medicine prescribed by your doctor, etc. One of the purposes of this assessment is to identify if there are any other resolutions that you might need in order for you to do a particular job.

Because we are still working on the project, some of the questions in this interview might not seem very relevant to you, but please answer them all anyway.

If you need any help as we go along, please ask.

All the information you give me will be in confidence – we won't pass on any individual information that could be traced back to you.

Many thanks for your help. The interview should last about an hour.

HEARING & COMMUNICATION

If a job involved hearing, could you do that?

Yes	
Yes, but…	1. My hearing is limited 2. I cannot hear clearly when there is background noise 3. I use a hearing aid 4. I have ringing in my ears 5. It depends how often I have to do it 6. It depends how I am feeling at the time 7. Other
No	

If a job involved communicating with others, could you do that?

Yes	
Yes, but…	1. I can communicate but not by speaking and hearing 2. Its OK on a one-to-one basis, but more difficult in groups 3. I have problems articulating / finding the right words 4. I need assistance from someone 5. I can but I'm not meant to 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved reading, could you do that?

Yes	
Yes, but…	1. I can read a few words 2. It depends on the complexity of the language 3. I can read using Braille 4. I can read using a computer package 5. It depends how long I have to do it 6. I get tired easily 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

If a job involved writing, could you do that?

Yes	
Yes, but…	1. I can't write very neatly 2. It depends how long I have to do it 3. I can write but its not very clear 4. I can only do it slowly 5. It depends how much I have to write 6. My spelling isn't very good 7. I use a computer package 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved using numbers, could you do that?

Yes	
Yes, but…	1. Only limited numbers (e.g. up to 20) 2. I can count, but not calculate 3. Only simple calculations 4. It depends how often I have to do it 5. It depends how I am feeling at the time 6. Other
No	

If a job involved giving and understanding hand signals, could you do that?

Yes	
Yes, but…	1. I could convey the meaning, but can't use my hands / arms 2. I could give signals but couldn't receive them 3. I could convey some meaning 4. I have limited movement in my arms 5. I can but I'm not meant to 6. I get tired easily 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

VISION & PERCEPTION

GATEKEEPER! Can you see?

	Yes
	No

If a job involved seeing objects that are near to you, could you do that?

Yes	
Yes, but…	1. Only with my glasses / lenses etc 2. I have limited vision 3. I would have to be very close 4. I would use a different sense 5. Only with one eye 6. I can but I'm not meant to 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

If a job involved seeing objects at a distance, could you do that?

Yes	
Yes, but…	1. Only with my glasses / lenses etc 2. I have limited vision 3. I would use a different sense 4. Only with one eye 5. I can but I'm not meant to 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved using peripheral vision, could you do that?

Yes	
Yes, but…	1. Only with my glasses / lenses etc 2. I have limited vision 3. I would use a different sense 4. Only with one eye 5. I can but I'm not meant to 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved recognising the difference between colours, could you do that?

Yes	
Yes, but…	1. Only with my glasses / lenses etc 2. I have limited colour vision 3. I would have to be very close 4. Only with one eye 5. It depends how often I have to do it 6. It depends how I am feeling at the time 7. Other
No	

If a job involved distinguishing between different shapes and sizes of objects, could you do that?

Yes	
Yes, but…	1. Only with my glasses / lenses etc 2. I have limited vision 3. I would have to be very close 4. I would use a different sense 5. Only with one eye 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved distinguishing between objects at different distances, could you do that?

Yes	
Yes, but…	1. Only with my glasses / lenses etc 2. I have limited vision 3. I would have to be very close 4. I would use a different sense 5. Only with one eye 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved judging the movement of objects, could you do that?

Yes	
Yes, but…	1. Only with my glasses / lenses etc 2. I have limited vision 3. I would have to be very close 4. I would use a different sense 5. Only with one eye 6. I can but I'm not meant to 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

If a job involved recognising patterns, could you do that?

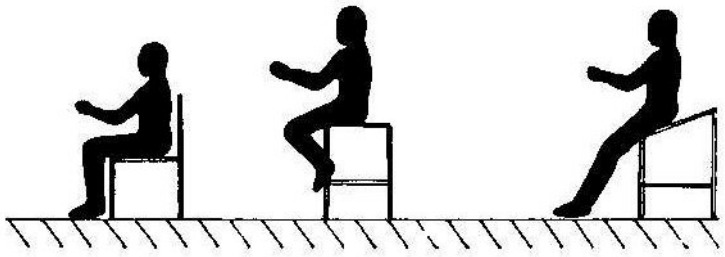
Yes	
Yes, but…	1. Only with glasses / lenses etc 2. Only with one eye 3. I cannot recognise patterns visually 4. It depends how long I have to do it 5. It depends on the pattern 6. I can but I'm not meant to 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

POSTURE AND MOVEMENT

If a job involved standing, could you do that?

Yes	
Yes, but…	1. I am only able to stand for a short time 2. I would have to sit down regularly 3. I would need assistance (crutches, sticks, rails) 4. I would have to hold onto something 5. I would have to move around and change my position 6. I get tired easily 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved sitting on a seat, could you do that?

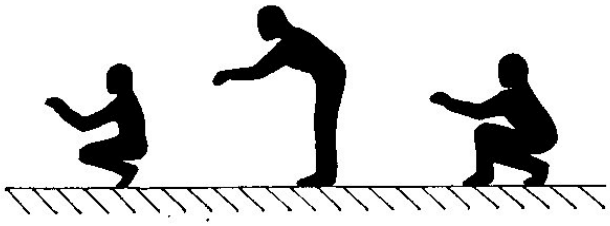


Yes	
Yes, but…	1. It depends on the seat 2. I would need a seat with arm support 3. I would have to move about regularly 4. I could only do it for a limited period of time 5. I would sit in my own wheelchair 6. I would need help to get in or out of the seat 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved reaching above 1.5m, could you do that?

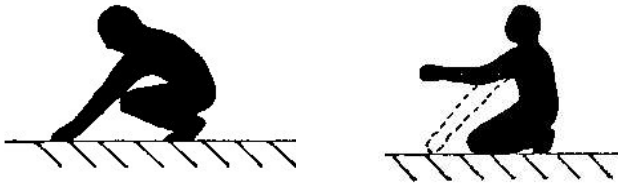
Yes	
Yes, but…	1. I have to adjust my wheelchair to be able to reach 2. I can only reach things at the front of a shelf – not items towards the back 3. I have to stand on tiptoe 4. I get tired easily 5. I can but I'm not meant to 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved working at 0.5 metre above floor level, could you do that?



Yes	
Yes, but…	1. I could only do it for short periods 2. I could bend forward but not crouch 3. I could do it from my wheelchair 4. I get tired easily 5. I can but I'm not meant to 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved working at floor level, could you do that?

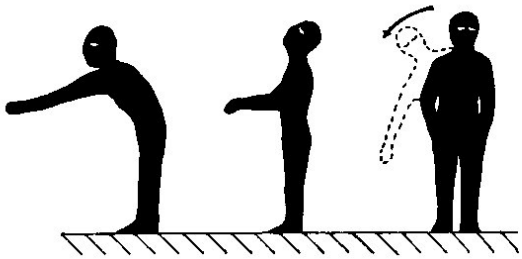


Yes	
Yes, but…	1. I could only do it for short periods 2. I could bend forward but not crouch 3. I would have to sit on the floor and work 4. I get tired easily 5. I can but I'm not meant to 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved getting under something low, could you do that?

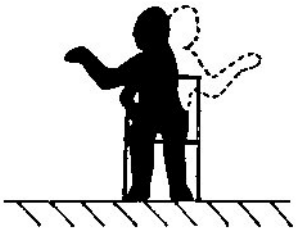
Yes	
Yes, but…	1. I could reach under a desk but not crawl along a tunnel 2. I could get under, but couldn't get up again 3. I don't like being in confined spaces 4. I get tired easily 5. I can but I'm not meant to 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved leaning over, could you do that?



Yes	
Yes, but…	1. I would have to hold on 2. I could only do it when sitting 3. I could only do it when standing 4. I could only do it for short periods 5. It depends on the direction I have to lean 6. I get tired easily 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved reaching behind you, could you do that?

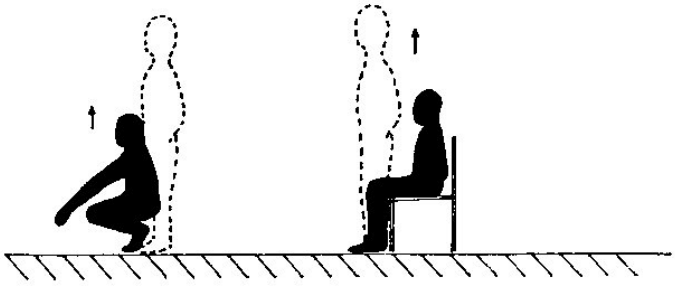


Yes	
Yes, but…	1. It depends how quickly I have to do it 2. I can only turn it to one side 3. I have limited movement 4. It is painful to do this 5. I would have to turn round to do it 6. I get tired easily 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved looking around you (side to side, up and down), could you do that?

Yes	
Yes, but…	1. It depends how quickly I have to do it 2. I can only turn it to one side 3. I have limited movement 4. It is painful to do this 5. Only some of these movements 6. I get tired easily 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved changing from one posture to another, could you do that?



Yes	
Yes, but…	1. I can only make minor changes to my posture 2. I can do some of the things shown in the pictures but not others 3. I get tired easily 4. I can but I'm not meant to 5. It depends how often I have to do it 6. It depends how I am feeling at the time 7. Other
No	

If a job involved lifting, could you do that?

Yes	
Yes, but…	1. I can only lift light things 2. It depends on the size of the item 3. It depends where I have to pick it up from 4. It depends on the position of the load 5. I get tired easily 6. I can but I'm not meant to 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

If a job involved carrying, could you do that?

Yes	
Yes, but…	1. I can only carry light things 2. It depends how far I have to carry things 3. It depends on the size of the item 4. It depends on the position of the load 5. I get tired easily 6. I can but I'm not meant to 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

MOVEMENT AROUND WORK AREA

If a job involved getting around the work place, could you do that?

Yes	
Yes, but…	1. It depends how far I have to go 2. Only in a motorised wheelchair 3. I would need assistance (crutches, sticks, rails, long cane) 4. I would have to hold onto something 5. It depends where I have to go 6. I get tired easily 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If the place where you worked had narrow spaces or obstacles, could you get around?

Yes	
Yes, but…	1. It depends on the width of the space 2. Only in a narrow wheelchair 3. I would need assistance (crutches, sticks, rails, long cane) 4. I would have to hold onto something 5. Only in good lighting conditions 6. I get tired easily 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If the place where you worked had ramps, could you get around?

Yes	
Yes, but…	1. I can only go up and down shallow ramps 2. It depends on the ramp 3. I can only go up ramps 4. I can only go down ramps 5. Only in a motorised wheelchair 6. I get tired easily 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved going up and down steps or stairs, could you do that?

Yes	
Yes, but…	1. Only if there was something to hold onto 2. I would have to take special care 3. It depends how many stairs there were 4. I can only go down stairs 5. I can only go upstairs 6. I get tired easily 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved going up and down a ladder or stepladder, could you do that?

Yes	
Yes, but…	1. I am not meant to work at heights 2. It depends on the ladder 3. I can do it slowly 4. I am afraid of heights 5. It depends how high it was 6. I get tired easily 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved working at heights, could you do that?

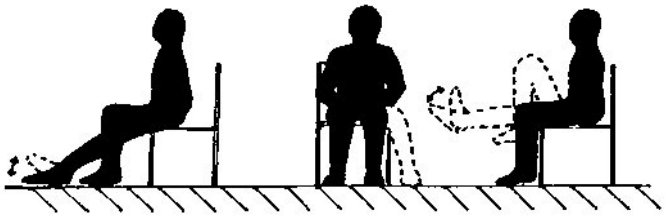
Yes	
Yes, but…	1. I can work at heights, but would need assistance to get there (e.g. a lift) 2. I am afraid of heights 3. It depends how high it was 4. I get tired easily 5. I can but I'm not meant to 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved walking, could you do that?

Yes	
Yes, but…	1. I can only walk short distances 2. I need assistance with walking (crutches, sticks, rails, long cane) 3. I can not walk on rough ground easily 4. I can not walk on smooth / polished surfaces easily 5. I get tired easily 6. I can but I'm not meant to 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

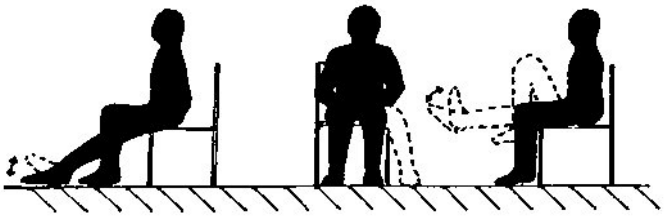
LOWER LIMBS

GATEKEEPER! If a job involved using your right leg and foot, could you do that?



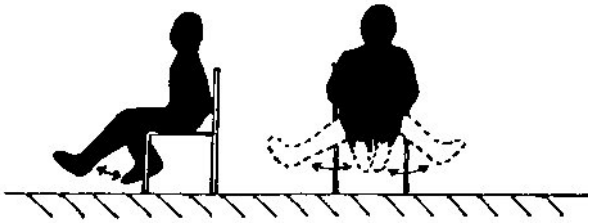
Yes	
Yes, but	1. I have limited movement in my right leg 2. I have to hold on to something to support me 3. I can move my leg but not my foot…. 4. I can move my foot but not my leg…. 5. I get tired easily 6. I can but I'm not meant to 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

GATEKEEPER! If a job involved using your left leg and foot, could you do that?



Yes	
Yes, but	1. I have limited movement in my left leg 2. I have to hold on to something to support me 3. I can move my leg but not my foot 4. I can move my foot but not my leg 5. I get tired easily 6. I can but I'm not meant to 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

If a job involved coordinating one leg or foot with the other, could you do that?

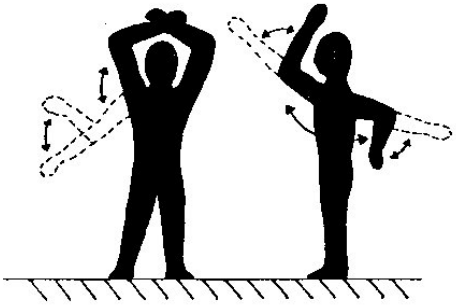


Yes	
Yes, but	1. The coordination is limited 2. I can coordinate them but the movement is limited 3. I have limited movement in one leg 4. I get tired easily 5. I can but I'm not meant to 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved using a foot pedal, could you do that?

Yes	
Yes, but…	1. I have limited movement in both feet and ankles 2. I have limited movement in one foot / ankle 3. I cannot hold a pedal in a fixed position 4. I get tired easily 5. I can but I'm not meant to 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

UPPER LIMBS



If a job involved using your right arm and hand, could you do that?

Yes	
Yes, but…	1. I have limited movement in my right hand and / or arm 2. I can move my arm but not my hand 3. I can move my hand but not my arm 4. I have full movement but no strength 5. I cannot grip 6. I have limited dexterity 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved using your left arm and hand, could you do that?

Yes	
Yes, but…	1. I have limited movement in my right hand and / or arm 2. I can move my arm but not my hand 3. I can move my hand but not my arm 4. I have full movement but no strength 5. I cannot grip 6. I have limited dexterity 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved working with your arms outstretched, could you do that?

Yes	
Yes, but…	1. Only with a limited weight or force 2. Only with limited movement 3. I could only do it for a short time 4. I can only stretch out one arm 5. I get tired easily 6. I can but I'm not meant to 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

If a job involved coordinating one arm or hand with the other, could you do that?

Yes	
Yes, but…	1. The coordination is limited 2. I can coordinate them but the movement is limited 3. I have limited movement in one arm / hand 4. I have limited movement in my shoulders 5. I can lift them up but not hold them in place 6. I get tired easily 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved gripping, could you do that?

Yes	
Yes, but…	1. I can grip with one hand only 2. My grip is not very firm 3. I can only grip for a short time 4. I wouldn't use my hands 5. I get tired easily 6. I can but I'm not meant to 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

If a job involved manipulating something, could you do that?

Yes	
Yes, but…	1. I could only do it for a short time 2. I wouldn't use my hands 3. I would need some support 4. I couldn't manipulate very small things 5. I can only use one hand 6. It depends how fast I had to do it 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved identifying things by touch, could you do that?

Yes	
Yes, but…	1. I can only do it with one hand 2. I have to use another part of my body, not my hands 3. I can only identify very big / distinct differences 4. I get tired easily 5. I can but I'm not meant to 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

PHYSICAL ENVIRONMENT

If a job involved working in an enclosed place, could you do that?

Yes	
Yes, but…	1. Only with someone else there 2. Only with someone else I know 3. It can trigger a reaction 4. It depends how enclosed it was 5. I can but I'm not meant to 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved working in open spaces, could you do that?

Yes	
Yes, but…	1. Only with someone else there 2. It can trigger a reaction 3. It depends how open it was 4. It depends how many other people there were 5. It depends if I knew the other people 6. I can only work inside 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved working in isolation, could you do that?

Yes	
Yes, but…	1. I need people around me in case of medical emergency 2. It depends how long I am on my own for 3. I am concerned about my personal security 4. I can but I'm not meant to 5. It depends how often I have to do it 6. It depends how I am feeling at the time 7. Other
No	

If a job involved working in very hot conditions, could you do that?

Yes	
Yes, but…	1. It makes me feel unwell 2. The heat can trigger a reaction 3. I get tired easily 4. I can but I'm not meant to 5. It depends how often I have to do it 6. It depends how I am feeling at the time 7. Other
No	

If a job involved working in very cold conditions, could you do that?

Yes	
Yes, but…	1. It makes me feel unwell 2. The cold can trigger a reaction 3. Only with lots of extra clothing 4. I get tired easily 5. I can but I'm not meant to 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved going from one environmental condition to another (e.g. temperature, light, noise), could you do that?

Yes	
Yes, but…	1. It makes me feel unwell 2. It could trigger a reaction 3. I get tired easily 4. I can but I'm not meant to 5. It depends how often I have to do it 6. It depends how I am feeling at the time 7. Other
No	

If the place where you worked had airborne contaminants, such as dust, pollen, or solvents, could you work there?

Yes	
Yes, but…	1. I control the effects with medicine or other treatments 2. It depends on the time of year 3. Only when I have a cold or chest complaint 4. It depends how often I am exposed 5. It can trigger a reaction 6. I can but I am not meant to 7. It depends how I am feeling at the time 8. Other
No	

If the place where you worked had skin irritants such as inks, grease, oil, or washing powders, could you work there?

Yes	
Yes, but…	1. I control the effects with medicine or other treatments 2. It depends on the time of year 3. It depends how often I am exposed 4. It can trigger a reaction 5. They would affect some parts of my body but not others 6. I can but I am not meant to 7. It depends how I am feeling at the time 8. Other
No	

If a job involved operating machinery or equipment, could you do that?

Yes	
Yes, but…	1. I should not operate machinery on my own 2. It depends on the machinery 3. I would have to be trained to use the equipment 4. I get tired easily 5. I can but I'm not meant to 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved wearing ear defenders, could you do that?

Yes / I don't need to	
Yes, but…	1. I can only wear them for a short time 2. They would interfere with other equipment I use 3. I can but I'm not meant to 4. It depends how often I have to do it 5. It depends how I am feeling at the time 6. Other
No	

If a job involved being exposed to vibration, could you do that?

Yes	
Yes, but…	1. It affects my hands and arms 2. It affects my whole body 3. It depends how often I am exposed 4. It depends how much I am exposed 5. It can trigger a reaction 6. I can but I am not meant to 7. It depends how I am feeling at the time 8. Other
No	

COGNITION

If a job involved remembering things, could you do that?

Yes	
Yes, but…	1. I need frequent reminders 2. As long as they are simple 3. As long as I can write them down 4. As long as they are written down for me 5. I can remember recent things only 6. I get tired easily 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

If a job involved following instructions, could you do that?

Yes	
Yes, but…	1. I need frequent reminders 2. I need them written down 3. As long as they are simple 4. As long as I can write them down 5. I get tired easily 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved learning tasks, could you do that?

Yes	
Yes, but…	1. I could only learn simple tasks 2. I need frequent reminders 3. As long as I can write them down 4. As long as they are written down for me 5. I get tired easily 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved concentrating, could you do that?

Yes	
Yes, but…	1. I have a short attention span 2. I can only concentrate for short periods 3. It depends on what I'm doing 4. I am easily distracted 5. I have to try hard 6. I get tired easily 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

If a job involved doing more than one thing at once, could you do that?

Yes	
Yes, but…	1. Only if there are simple things 2. I get tired easily 3. I can but I'm not meant to 4. It depends how often I have to do it 5. It depends how I am feeling at the time 6. Other
No	

If a job involved being accurate, could you do that?

Yes	
Yes, but…	1. I have to try hard 2. It would take me longer 3. I get tired easily 4. It depends how often I have to do it 5. It depends how I am feeling at the time 6. Other
No	

If a job involved detecting faults, could you do that?

Yes	
Yes, but…	1. I couldn't do it visually 2. Only simple faults 3. I get tired easily 4. It depends how often I have to do it 5. It depends how I am feeling at the time 6. Other
No	

If a job involved making decisions, could you do that?

Yes	
Yes, but…	1. Not under time pressure 2. Not instantly 3. Only simple decisions 4. Only following the usual procedure 5. When I've been given permission 6. If I keep calm 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved changes of working pace, could you do that?

Yes	
Yes, but…	1. They would have to be in my control 2. I have difficulty switching off 3. I get tired easily 4. I can but I'm not meant to 5. It depends how often I have to do it 6. It depends how I am feeling at the time 7. Other
No	

If a job involved managing yourself, could you do that?

Yes	
Yes, but…	1. I get tired easily 2. It depends how often I have to do it 3. It depends how I am feeling at the time 4. Other
No	

If a job involved managing other people, could you do that?

Yes	
Yes, but…	1. I could only manage a few people 2. I get tired easily 3. I can but I'm not meant to 4. It depends how often I have to do it 5. It depends how I am feeling at the time 6. Other
No	

If a job involved working with others, could you do that?

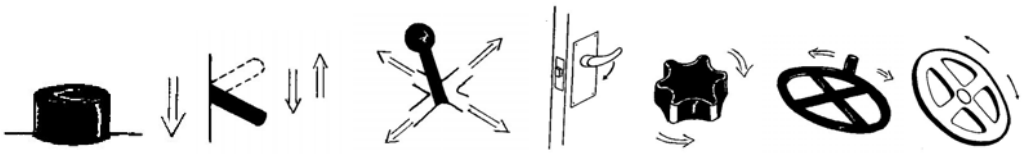
Yes	
Yes, but…	1. I can only work with people I know 2. I can only work on a one-to-one basis 3. I can only work in a small group 4. I can only work with people from my department / organisation 5. Communication can be an issue 6. I get tired easily 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved working with members of the public, could you do that?

Yes	
Yes, but…	1. I can only work in a small group 2. I can only work on a one-to-one basis 3. Communication can be an issue 4. I get tired easily 5. I can but I'm not meant to 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

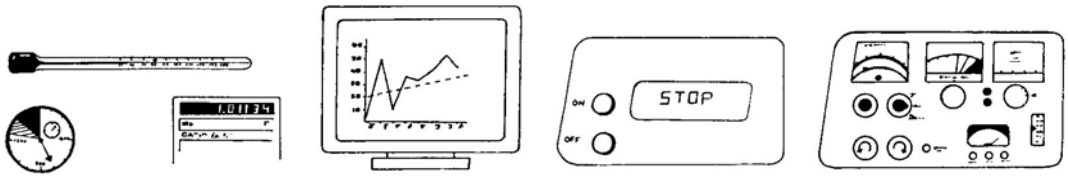
CONTROLS & DISPLAYS

If a job involved using controls, could you do that?



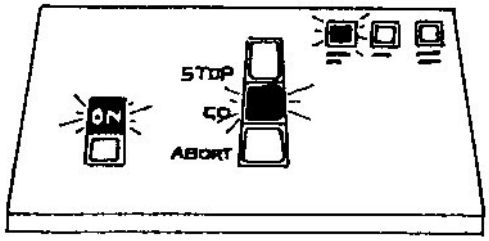
Yes	
Yes, but…	1. I can only use one hand 2. I can only use them slowly 3. I can only use large controls 4. I can only use small controls 5. I can not apply much force 6. I can not use much precision 7. I get tired easily 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved understanding displays, could you do that?



Yes	
Yes, but…	1. I can only understand simple displays 2. I can't look at a computer screen for long 3. I get tired easily 4. It depends how often I have to do it 5. It depends how I am feeling at the time 6. Other
No	

If a job involved interpreting lights as indicators, could you do that?



Yes	
Yes, but…	1. I can not see lights 2. I can not see different colours 3. I can only interpret simple / a few lights 4. I can but I'm not meant to 5. It depends how often I have to do it 6. It depends how I am feeling at the time 7. Other
No	

If a job involved distinguishing different sounds, could you do that?

Yes	
Yes, but…	1. I can not hear sounds 2. I can only hear them with assistance (hearing aid etc) 3. I can only interpret a simple / constant sound 4. It depends on the direction of the sound 5. It depends on the volume of the sound 6. I would use a different sense to hearing 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

If a job involved using hand tools, could you do that?

Yes	
Yes, but…	1. I can only use one hand 2. I cannot apply any force 3. I can only use them for a short time 4. I can use some hand tools but not others 5. I wouldn't use my hands 6. I get tired easily 7. I can but I'm not meant to 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved using a computer could you do that?

Yes	
Yes, but…	1. I would need to be taught 2. I can only do it slowly 3. I could only do simple things 4. It depends how often I have to do it 5. It depends how I am feeling at the time 6. Other
No	

If a job involved using a keyboard, could you do that?

Yes	
Yes, but…	1. I can use a keyboard but I can't touch type 2. I think I could use a keyboard if I was taught 3. I can only use one hand 4. I can't use my hands 5. I can only use it slowly 6. I can press all the keys but I don't know how to use a computer 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

If a job involved using a computer mouse, could you do that?

Yes	
Yes, but…	1. I think I could use a mouse if I was taught 2. I can only use one hand 3. I can't use my hands 4. I can only use it slowly 5. I can press all the buttons but I don't know how to use a computer 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

If a job involved travelling, could you do that?

Yes	
Yes, but…	1. I could not do it on my own 2. It depends how far I have to go 3. It depends on the mode of transport 4. I could not stay away from home overnight 5. I could do it on my own, but with some support 6. I can but I'm not meant to 7. I get tired easily 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

If a job involved driving, could you do that?

Yes	
Yes, but…	1. I think I could if I was taught 2. I would have to use an adapted car 3. I could not do it on my own 4. It depends how far I have to go 5. I can but I'm not meant to 6. I get tired easily 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

MATCHING ABILITIES WITH JOBS

ACTIVITY ASSESSMENT

Does the job involved hearing?
Consider the need to hear speech or detect machine faults

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve communicating with others?
Consider the need to understand and to be understood, either by speech and hearing, lip-reading and signing or other method

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve reading?
e.g. reading worksheets, book covers

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve writing?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve using numbers?
Consider counting, calculating, use of spreadsheets etc

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve giving and understanding hand signals?
e.g. guiding lorries into parking bays

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve seeing objects that are near to you?
Consider need for near vision: (short distance)

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve seeing objects at a distance?
Consider need for far vision: (Long distance e.g. 10m or more)

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve using peripheral vision?
Consider need for being aware (visually) of things around the workplace e.g. driving, using hand trolley, staffing a busy reception

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve recognising the difference between colours?
e.g. in printing, fabric

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve distinguishing between different shapes and sizes of objects?
e.g. of different products, fault detection

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve distinguishing between objects at different distances?
Consider the need to recognise the position of stationary objects: i.e. distance and depth perception e.g. positioning object in correct place on a machine, judgement required when manoeuvring a trolley jack

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve judging the movement of objects?
i.e. speed, direction, relative speed and rhythm of movement, e.g. driving vehicles, moving machinery

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve recognising patterns?
e.g. inspection tasks, printing, fault detection

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve standing?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve sitting on a seat?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve reaching above 1.5 metres from floor?
e.g. stacking items on a pallet / shelf

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve working at 0.5 metres above floor level?
e.g. with arms / shoulders at a 0.5 metre high (approx) by stooping, kneeling

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve working at floor level?
e.g. by sitting, crouching, bending to floor

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve getting under something low?
Consider need to reach under desks, get access to equipment, use access tunnels etc, by crawling, sliding

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve leaning over?
Consider the need to maintain balance / equilibrium: e.g. (not just standing) leaning over while carrying out task

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve reaching behind you?
Consider whether twisting the trunk is vital to reach objects behind self – can the job be done as efficiently by turning on feet?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve looking around you?
Consider the need to move the head to look around: e.g. to look over the shoulder, look up and down

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve changing from one posture to another?
i.e. job requires individual to move through a variety of postures e.g. crouching, sitting, bending, standing

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve lifting?
Consider shape, size and weight of object plus frequency, duration, height of lift, e.g. floor to bench, bench to pallet

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve carrying?
Consider shape, size and weight of object plus frequency, duration, carrying distance

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve getting around the workplace?
i.e. the need to get about the workplace

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve moving through narrow spaces or around obstacles?
Consider requirements of wheelchair, walking frame, crutches

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve going up and down ramps?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve going up and down steps or stairs?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve going up and down ladders and stepladders?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve working at heights?
e.g. loading lorries, changing light fittings, maintaining the roof

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve walking? That is the need to actually walk, not the need to be mobile

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve using your right leg and foot specifically?
e.g. to operate a foot control which can only be reached from/on the right side of the machine

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve using your left leg and foot specifically?
e.g. to operate a foot control which can only be reached from/on the left side of the machine

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve using one leg or foot, but not specifically right or left?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve co-ordinating one leg or foot with the other leg or foot?
e.g. like using foot controls in a car

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve using a foot pedal?
Consider discrete / continuous e.g. on/off pedal, accelerator, sewing machine pedal

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve using your right arm and hand specifically?
e.g. to operate a control on the right side of a machine, or to handle a workpiece

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve using your left arm and hand specifically?
e.g. to operate a control on the left side of a machine or to handle a workpiece

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve using one arm or hand, but not specifically right or left?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve working with your arms outstretched?
Consider control and function at extreme reach of arms (not for strength) e.g. paint /polish spraying using a lightweight spray gun with outstretched arms, holding and manipulating 1kg weight at arms length

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve co-ordinating one arm or hand with the other arm or hand?
e.g. to pass an object from one hand to the other

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve gripping?
Consider strength of fingers / hands / forearms: e.g. gripping objects

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve working manipulating something?
Consider dynamic control of fingers / hands / forearms: e.g. positioning items at stitching machines, winding ball of string

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve identifying things by touch?
Consider need for tactile recognition / discrimination: e.g. distinguishing different textures, thickness, quantities, etc by touch

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve working in an enclosed place?
Consider work areas such as lifts, booths, etc which might induce claustrophobia or other problems

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve working in open spaces?
Consider work areas such as large open warehouses, outdoors, public areas, etc, which might induce agoraphobia or other problems

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve working in isolation?
Consider in relation to needing help in case of a blackouts, fits etc

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve working in very hot conditions?
e.g. kitchens, paint drying, heat glueing

No exposure ☐ Occasional exposure ☐ Frequent exposure ☐

Does the job involve working in very cold conditions?
e.g. stores, quick chill processing

No exposure ☐ Occasional exposure ☐ Frequent exposure ☐

Does the job involve going from one environmental condition to another?
e.g. going from hot to cold, dark to light

No exposure ☐ Occasional exposure ☐ Frequent exposure ☐

Does the job involve working where there are airborne contaminants?
e.g. dust, powders, grass pollen, glue, solvents

No exposure ☐ Occasional exposure ☐ Frequent exposure ☐

Does the job involve working where there are skin irritants?
e.g. inks, solvents, grease, oil, glues

No exposure ☐ Occasional exposure ☐ Frequent exposure ☐

Does the job involve operating machinery or equipment?
Consider job risks associated with handling equipment / machinery e.g. consequences of operator blacking out, misusing equipment, incorrect machine setting

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve wearing ear defenders?
Consider the need to wear ear defenders as required by HSE

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve working where there is exposure to vibration?
Consider hand / arm / body vibration: e.g. sewing, woodworking, hand trolley, tractor, fork-lift truck

No exposure ☐ Occasional exposure ☐ Frequent exposure ☐

Does the job involve remembering things?
Consider use of memory and application of past experience e.g. remembering to change tension of sewing machine for different thickness fabrics

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve following instructions?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve learning tasks?
Consider complexity of tasks, time to learn, etc

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve concentrating?
e.g. vigilance during quality control, machine setting or monitoring of sensitive processes

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve doing more than one thing at once?
Consider the need for divided attention: e.g. monitoring machine displays whilst feeding the machine, monitoring more than one process / person / task at a time

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve accuracy?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve detecting faults?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve making decisions?
Consider relationship between information & action, complexity of decision making

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve changes of working pace?
Consider the need to respond to high demand peaks at busy times etc

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve managing yourself?
e.g. planning time, tasks to be done, prioritisation, etc

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve managing other people?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve working with others?
Consider the need for and extent of contact with other workers, e.g. working in pairs, team working etc

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve working with members of the public?
Consider the need for and extent of contact with members of the public, in person or on the telephone, etc

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve using controls?
e.g. pushbuttons, switches, levers, knobs, wheels

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve understanding displays?
Consider analogue or digital e.g. dials, clocks, computer monitor

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve interpreting lights as indicators?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve distinguishing different sounds?
Consider siren, machine malfunction warning, fork lift truck, lorry reversing

No requirement ☐ Some requirement ☐ Major requirement ☐

oes the job involve using hand tools?
e.g. hammer, spanner, pliers, tweezers, screwdrivers, scissors

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve using a computer?
Consider need to input data, using and load programmes, etc

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve using a keyboard?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve using a computer mouse?

No requirement ☐ Some requirement ☐ Major requirement ☐

Does the job involve travelling?

Consider need to use own transport, travelling with colleagues, public transport, alone or with support

No requirement ☐ Some requirement ☐ Major requirement ☐

DOES THE JOB INVOLVE DRIVING? THAT IS THE NEED TO ACTUALLY DRIVE, RATHER THAN TRAVELLING IN A CAR WITH SOMEONE

No requirement ☐ Some requirement ☐ Major requirement ☐

FEEDBACK PAGE

Please enter any comments about the interview or the questionnaire here.

Appendix C:

Models of Disability

Extract from S C Duckworth PhD thesis: "Disability and Equality in Employment: The Imperative for a New Approach" February 1995

Introduction

The failure of social policy to tackle the discrimination experienced by disabled people is evident in every aspect of social life. In these notes an alternative approach to discrimination is considered -The Social Model of Disability. However, an attempt is made to draw a balance between this new way of thinking and the more traditional individual model. The discussion is drawn to a conclusion by introducing a new 'enabling' or 'empowerment' model which recognises the spectrum of experiences encountered by people impairments.

The empowerment model helps service providers develop policies and procedures which enable those who have internalised the individual model to develop self-esteem and control over how they choose to live their lives. It also helps establish an 'Agenda for Action' designed to dismantle disabling barriers in society so that disabled people can move from passivity and dependence into a situation which enables them to enjoy the rights and responsibilities that active citizenship brings.

The Changing Nature of Work and Society

During early industrialisation, impairment probably did exclude many disabled people from the labour force. Work typically involved heavy physical labour in large and small factories, mines and on the land. Conditions were harsh and demanding, often resulting in the disablement of the workforce, who were then unable to perform their work tasks. Since the second world war, however, the nature of work itself in industrialised nations has changed substantially with the steady decline of heavy manufacturing industry, the introduction of new technology to replace human labour and the expansion of the service sector. In addition, new technologies, particularly information technology, and the emergence of new science-based industries have dramatically transformed the labour markets of modern societies.

Thus there are many more kinds of jobs and activities, requiring different sets and levels of skill, in society. For a whole range of activities some sort of technology is required. It is this kind of technological development which has transformed the potential of people with impairments, since modern technology can eliminate most functional limitations. It is, however, difficult to envisage how all impairment related difficulties, like the fatigue experienced by some people with multiple sclerosis and the intellectual changes of people after a head injury, can be overcome by technology alone. Other measures like access to personal assistants, the use of advocates, flexible working hours and support workers will also be required.

Notwithstanding these factors, some writers have heralded these technological developments as paving the way for a significant expansion in the range and number of activities which disabled people might undertake. This was expected to occur through the development of a new generation of equipment and adaptations, through technologies which reduced the need for physical strength in many processes and through increased opportunities like remote working brought about by developments in communications.

Finkelstein (1980) anticipated the impact of the benefits above in an idealised three phase account of disability. Phase I refers to feudal society, seen as a cooperative community of agriculture and small scale industry which did not preclude most disabled people from participating, in some way, in the process of production. With industrialisation, i.e. Phase II, the nature and speed of factory work and the hours and discipline required resulted in many disabled people being excluded from social activities and the labour market. Disabled people came to be seen as a social and educational
problem resulting in their segregation within institutions of various kinds. Finally, Finkelstein believed that the late 1980s would be characterised by an emerging Phase III. He anticipated that during this period disabled people would be liberated from the segregating practices of society by new technologies and by closer partnership between professionals and disabled people.

In some respects Finkelstein was right to anticipate the distinctiveness of Phase III. It is difficult to find a social activity or class of employment that is not currently being carried out by a person with some kind of impairment. This is supported both by reference to disabled high flyers, in fields ranging from cosmology to politics, and to numerous examples in the literature on successful employment projects involving disabled people.

However, the range of new opportunities afforded by technology have not yet ameliorated the position of disabled people as the most marginal in society. Indeed, technology may even further contribute to the disadvantage experienced by disabled people. Over a decade ago, Schworles (1983) identified an emerging `culture gap' in the expertise of using new technology between disabled people and their non-disabled peers.

If Finkelstein's Phase III has failed to materialise for most disabled people, this is less likely to be due to the failed promise of technology than deficiencies in training and the resistance provided by other barriers. Nor can blame be laid at the door of disabled people's ability as discussed earlier.

An evolving alternative explanation for the disadvantage experienced by disabled people is developing which views discrimination as institutionalised within society's beliefs and practices. The inequality resulting from institutionalised discrimination has led some commentators to view the disadvantage experienced by disabled people as a particular form of oppression. Advocates of the view that disability is institutionalised express their views both nationally and internationally through such organisations as the British Council of Organisations of Disabled People (BCODP) and Disabled Peoples' International (DPI). The utility of this approach which harnesses the social model of disability in combating the discrimination experienced by disabled people is contrasted next with the individual model approach.

The Individual Model

There are always a variety of ways that can be used to explain particular situations. Historically, disability has been conceptualised as a problem of the individual. The approach is underpinned by an assumption that there is something intrinsically wrong with disabled people which results in their experience of limited opportunities. This model positions the impairment as the primary focus of concern. People are often judged according to their impairment rather than the skills, aptitudes and qualifications they have to do particular tasks.

The individual deficiency, as defined by this model, can be viewed as a personal tragedy resulting in people who need to be looked after and cared for. It can also be seen as a medical problem requiring therapeutic intervention to help resolve the situation. The tragedy approach has assumed that the experience of disability devastates the individual to such a degree that there is little hope of participating as an active citizen. The individual is deemed to have become dependent and is defined in terms of their diagnostic label. Charities were established, based on impairment categories, to help these 'unfortunate' individuals and their fund-raising efforts to support this work have often adopted an approach based on the tragedy model. This sociological phenomenon has had a significant impact on the prospects of disabled people and does not measure up to the facts about the ability of disabled people.

The medical model also positions the impairment as the primary focus of concern. It has been underpinned by an assumption that the quality of life of disabled people can be best improved by resolving or limiting the impairment through treatments aimed at curing the individual. Whilst these are laudable expectations, there are problems in maintaining this approach as the only or even the primary focus is that when interventions do not 'cure' the individual, disabled people are likely to be perceived as having a permanent medical problem which will result in limiting their opportunities.

Notwithstanding the inadequacies of the medical model, it is difficult to challenge for a variety of reasons. First, for any individual who has just lost a degree of motor, sensory or intellectual functioning their initial desire would be to regain it as fully and rapidly as possible. However,
research by Martin et al (1988; 1989) demonstrates that this is not an option for 6.2 million adults in the UK as 14.2% of the adult population who experience an impairment through accident or illness will not be cured.

The second problem in challenging the medical model results from the considerable level of expertise developed by practitioners working in this field. They have gained a great deal of knowledge about impairment through research and practice and have been vested with considerable power over disabled people's lives by society. Any challenge to the status of the medical model is a challenge to this knowledge and the power which underlies it.

No model is capable of providing all the answers to a particular situation but it is clear from the discussion above that the individual model, encapsulated by the tragedy and medical approaches, is very problematic when considering how best to improve opportunities. The scenarios outlined above could deny integration for a variety of reasons.

First, disabled people may be too busy undergoing therapy to have time to participate in life; second, they may be too tired to work competitively on their arrival at the job because of the high energy used getting to work through the insistence on using crutches rather than a powered wheelchair; third, others may associate disability with illness; and fourth, the tragic images of charity fund-raising may encourage donations whilst limiting opportunities. It is clear that an alternative approach is required which is discussed below as the social model of disability.

Developing the Social Model of Disability

Historically, disability has been defined as an individual disadvantage requiring a set of particular social policies, rather than incorporating provision into general social and environmental planning. The effect of special policies has been increasingly to create or reinforce dependency among
disabled people.

This process is traceable to the origins of the welfare state. Prior to the second world war, the position of disabled people in society was predominantly a picture of institutionalisation or isolation within the family. The proliferation of war time and post-war legislation appeared to offer the promise to disabled people of full citizenship. The welfare state as envisaged by Beveridge was based on a philosophy of active citizenship within a framework of entitlements, providing cradle to the grave security for all individuals. However, in translating this philosophy into practice, the welfare state became side-tracked into a form of provision which emphasised need, and created passive rather than active citizens.
Needs-based welfare provision, though providing disabled people with more access to services, also promoted socialisation into dependency through the way in which services were provided, the interventionist nature of professional practice and the language in which it is all described.

Thus, while the 1944 Education Act specified that disabled children should be educated alongside their peers in primary and secondary education, the regulations concerning the Act in 1946 first introduced the concept of `need' and in due course disabled people came to acquire 'special needs'.
Evidence of the disadvantageous effect of segregated education on the social development of young disabled people has been accumulated in recent years.

Although the Warnock Report (1978) and subsequent Education Act (1981) proposed greater integration, progress in mainstream schools has been minimal, hampered by staff responses and lack of local education authority commitment to change, reflected in resourcing and policy development. The Education Reform Act has exacerbated the problem of differential provision by the policy of opting-out and the stress on high academic achievement by tests, leading to greater selectivity by schools. There is little therefore to challenge the perpetuation of educational environments in which medical need predominates over educational need and from which young people emerge often conditioned into accepting a devalued social role as sick, pitiful and a burden of charity. Such young people are lacking the skills to face the tasks of adulthood and ignorant about the main social issues of our time.

Similarly, among the health and social support services, the National Assistance Act (1948) and the Chronically Sick and Disabled Persons Act (1970) both extended services for disabled people but failed in their style of provision. This was also facilitated the emergence of a dependency creating professional / client relationship.

Even the recent Disabled Person's (Services, Consultation and Representation) Act 1986, in spite of its rhetoric, extends this approach to disability through its statementing procedures. The Act originally afforded disabled people the right to be assessed, consulted and represented, and included in its provisions reference to meaningful collaboration between users and providers of services. Subsequently, it has been announced that important aspects of the act regarding the right to an advocate, the right to have a written statement on needs assessment and the right to ask local authorities for services are not to be implemented. There is also evidence that there has been little attempt by local authorities to interpret their obligations towards consultation within the spirit of the Act.

Institutionalised discrimination is also evident in housing policy where accessible homes form only a tiny percentage of total housing stock. Much of what exists forms ghettos in public sector `special needs' developments leading to homelessness among disabled people, often masked by disabled people remaining with families. Housing difficulties will compound the employment disadvantages of disabled people by decreasing their occupational mobility.

Disabled people also experience institutionalised discrimination in transport policy. Adaptation of production cars is often prohibitively expensive for disabled people while most urban `public' transport, buses and local rail systems are inaccessible to many, leading to a reliance on more expensive methods, such as taxis, or segregated transport provision e.g. Dial-A-Ride which is not sanctioned for regular journeys such as to the work place.

Problems in the built environment for disabled people have been somewhat ameliorated recently with building regulations stipulating that structures erected after 1987 should be accessible. However, the voluntarist approach to buildings erected before that time means that disabled people will continue to experience institutionalised discrimination in the built environment restricting access to both work, leisure, social and political life.

In this way, therefore, disability is not merely socially constructed but also socially created and 'dependency' has supplemented `personal tragedy' as a prevailing aspect of service provision. The creation and reinforcement of dependency has a political basis in the way in which the legislative approach to disability is locked into a professional and service based approach rather than a civil rights approach. This is perpetuated by the way in which political discourse about disability is conducted in a particular linguistic form illustrated by such descriptors as 'community care', 'care attendants' and even 'carers'.

The political context determines the professional basis for the creation of dependency which is apparent in modes of service provision incorporating little consultation, unequal professional / client relationships and patronising social attitudes.

The influence of the medicalisation of disability, the personal tragedy thesis and the creation of dependency are all reflected in modern cultural and media images of disability. The Broadcasting Research Unit reported that the most common feature of factual reporting in broadcasting on disabled people concerned medical treatment, particularly `cures' for impairment. Other disability issues tend to be referred to specialist slots.

Broadsheet newspapers similarly tend to report on even non-medical disability issues in the health section. The influence of the personal tragedy thesis is especially evident in, but by no means confined to, tabloid newspaper reporting, particularly if some celebrity can be seen to be intervening on behalf of a particular group of disabled people. Intrinsic to the personal tragedy approach and also popular in 'human interest' style reporting is the 'brave cripple' approach which applauds any disabled individual who is deemed to overcome personal tragedy often by accomplishing perfectly normal acts.

Fictional representations of disabled people, television programmes, films and literature demonstrate the ideological content of cultural images of disability. Many have the historical, religious or superstitious roots also identified by attitude theorists. Only rarely in any of these areas, however, is disability treated realistically, i.e. incidentally, as a situation occurring naturally in a percentage of the population. It is more often employed as a symbolic device for a range of metaphors. Disability has been used to portray or enhance a variety of characterisations ranging from malevolence to helplessness or to convey a parable on adjustment ultimately conveying the essential soundness of prevailing social norms. Many examples can be found which appear to validate even the most extreme emotions such as revulsion.

The failure to use realistic images of disabled people is also obvious in advertising, which is the section of the media most directly targeting our behaviour. UK advertising agencies have so far generally declined to 'risk' using disabled people in general advertising to sell their products,
implying assumptions of negative association.

The impact of representations of disability is readily apparent in charity advertising. Historically, charities have commonly made quite aggressive use of both the personal tragedy and dependency images in their efforts to raise funds. Reiser and Mason (1990) point to the reliance on pathetic and pitiable images of disabled children begging outside shops. A charity providing holidays for disabled people, has emphasised the perceived burden that disabled people place on their families and hence assumptions about their dependent position. This approach has been moderated in recent years to suggest that readers focus on 'ability not disability'. Campbell (1990) noted that this is still misleading for it retains the focus on the disabled individual rather than on society. Other charities, particularly those seeking funds for medical research, still rely heavily on the personal tragedy
image with an emphasis on the solution being provided by a cure.

Finally, definitions of disability are also reflected by the language commonly surrounding it. The medicalisation of disability is reflected by the fact that disabled people are often collectively grouped in depersonalised terms by their impairment - "the deaf" and "the spinal injured".

The influence of the personal tragedy model is illustrated by such phrases as "suffering from", "afflicted by", "a victim of" and "struck down by". Disabled people are also spoken of as "bound" to their wheelchairs or "confined to their homes" by their individual impairments in a way which neglects the restrictions imposed by the built environment.

The implications of this analysis for improving integration and opportunities are important because it supports the need for a shift away from defining individual disabled people as being the root cause of the problem. An alternative strategy is required which values the contribution disabled
people can make and questions the way that social barriers limit opportunities - the social model. When this model is applied to the disadvantages experienced by disabled people alternative solutions can be developed.

Re-Defining Disability

The on-going development of a discourse which employs a social model of disability by both sociologists and disability rights activists has led to the attempt to re-define key concepts:

Disability is the loss or limitation of opportunities to take part in the normal life of the community on an equal level with others due to physical and social barriers.

With an accompanying definition of:

Impairment is the functional limitation within the individual caused by physical, mental or sensory impairment (Barnes, 1991, p. 2).

In other words people who have impairments are disabled by the society they live in. Therefore, it can be argued that once all the disabling barriers are removed all disabled people will enjoy equality of opportunity. However, this situation will only ever be achieved if the social model is robust enough to provide all the solutions, which still remains open to question.

The Individual and Social Models

It has been suggested earlier that no one model can provide all the answers to a particular problem. A model is simply a set of ideas that have been developed to explain a particular situation. They can only ever be used to approximate the true picture. It is argued here that the individual model of disability and the social model represent the opposite poles of a continuum. This spectrum is considered next in order to determine the most effective approach currently available to tackle discrimination against disabled people.

Historically, the individual model has been far more influential by presenting the impairment as the principal focus for intervention. Despite this, medical model practitioners have also recognised the existence of `disabling barriers' which they often refer to as the `handicapping' effects of disability.

The derivation of this relationship is important because if, under medical definitions, the handicap results from the disability which in turn results from the impairment then logic would dictate that resource allocation and research effort should be directed primarily at ameliorating the impairment. This imperative is reflected by the dominance of impairment centred research as reported in the majority of `disability' journals, magazines and books.

Proponents of the social model take the opposite view. Their arguments lead to the conclusion that:

It is in fact the posture of society at large that constitutes the most disabling parts of being disabled, not the physical effects of whatever condition one happens to have, unless it leaves the individual utterly bedridden or completely fatigued. On the whole, it is the organisation of society, its material construction and the attitudes of individuals within it, that result in certain people being disabled (Brisenden, 1986 p. 175).

Despite stressing the organisation of society, Brisenden also recognised the importance of impairment - 'unless it leaves the individual utterly bedridden or completely fatigued'. It is important to note he has acknowledged that some features of a disabled person's experience are not socially defined.

In practice, however, the importance of the experience of impairment to the individual and the way in which they function with respect to others has not received the same degree of attention, nor has their been much campaigning on this aspect. This has happened for a variety of reasons.

First, disabled academics who are aligned to the social model have sought to redress the major imbalance resulting from medically dominated ideas relating to 'disability'. Second, individual disabled people have not tended to go against the latest ideological emphasis on the social model by discussing personal concerns about pain or progressive impairment for fear of being thought of as not 'politically correct' enough to be part of the movement. Finally, the disability movement does not represent the views of all disabled people.

The differences of opinion over the most appropriate model to employ in disability research have emerged in a recent unpublished report presented to the Commissioning Group on Physical and Complex Disabilities (NHS R&D Programme, South and West Regional Health Authority, 1993). A sample of disabled people gave a higher priority to research on reducing impairments than they gave to questions based on the social model.

It is a fact that the majority of disabled people are over the age of 65. If the social model is to gain greater acceptance then the concerns of this group, and many other disabled people, who are still impairment-focused needs to be considered. Continuing with an extreme polarisation of views might inhibit a broader acceptance of the social model and may result in a large number of disabled people adhering to the individual model. Partnerships are needed to gain a consensus perspective which represents the broader views of a larger number of disabled people about the balance between the individual and social models.

To achieve this, moderation may require shifting from a constraining adherence to a model which presents one particular pole of a spectrum of experiences. That is not to say that the social model or the individual model are wrong, each simply contains part of the true picture. This implies that there is a need for proponents of the social model to address the concerns of disabled people who focus on their impairment. Shakespeare (1993) has argued that:

in order to reach out and foster collective identity, the disabled people's movement will have to work out new ways of dealing with the issue of impairment, and of developing conscienticization among the wide majority of disabled people (p. 257).

This development is needed not only to help those disabled people who view the social model as being wrong but also for non-disabled professionals who feel threatened by recent developments. Avoiding the issue could lead to many important views being dismissed as belonging to a 'non-representative' minority. Non-disabled professionals are still, in the main, the gatekeepers of scarce resources which disabled people need to develop the application of different solutions. The US experience suggests that significant progress can only be made when positive partnerships are developed between the disabled people's movement and employers, politicians, journalists, broadcasters, lawyers, rehabilitationists, academics, service providers, educators and other key social actors.

A change in emphasis may be required to start shifting away from simply acknowledging that impairments exist towards developing a new way of thinking about the experience of being impaired which is a balance between the individual and social model. The experience of pain, even if the individual does not 'suffer' from it, needs to be considered in relation to productivity at work. The psychological impact of recurrent remissions for people with progressive impairments and the experience of people with difficulty expressing their thoughts are two further examples of many which require more thought. Although many of these problems can be answered by the social model the impact of the individual experience of impairment is important.

In conclusion, it has been argued above that although the social model of disability is a useful way of examining the problems experienced by disabled people, the individual model may also be of value in considering the needs of newly disabled people, those with rapidly progressive impairments and those where medical intervention can improve function as is the situation for some people with mental health problems. The answer must lie in the opportunity that individuals have to exercise choice in how they control their lives whilst recognising the responsibility they have towards their fellow citizens.

The Enabling or Empowerment Model

The dilemma created by this continuum of experiences permits those who are 'in the know' about the social model to forge ahead in demanding their rights and living up to their responsibilities. The danger is that these opportunities are only enjoyed by a few. The vast majority of disabled people need some form of support to help springboard them into opportunity.

Delegates who attend seminars run by Disability Matters Ltd will develop a personal action plan. This will have certain general and specific parameters which will be expected to

- Delegates will have a range of skills which will enable them how to deliver services which will be designed to empower disabled people to understand the social model and use the social model to enhance their chance of securing equal opportunities.

- Delegates will become motivated towards developing enabling services which encourage disabled people to develop their self-esteem and value the contribution that they have to make towards society.

- Delegates will have developed a new way of thinking about disability which will help them understand the individual, social and empowerment models of disability.

- Delegates will become more confident at interacting with disabled people and valuing the diversity of the ranges of impairment.

- Delegates will be able to apply their new found skills to a variety of settings which will include employment practice and service provision.

- Delegates will understand how their core beliefs, attitudes and values about disability were formed and how they might hinder or help them to value the contribution that disabled people have to make.

- Delegates will have developed a set of values, beliefs, attitudes and behaviours which will result in helping them improve their opportunities for career development with respect to their role in enhancing opportunities for disabled people.

- Delegates will have produced a personal action plan with actionable steps, and measurable outcomes and success criteria which they will use to help manage and organise future developments to improve policy and practice.

In addition, as part of a commitment to ensuring quality and that the programme delivers what it is designed to deliver, various quality standards will be put in place. For instance, it will be ensured that the requirements and needs of the participants are carefully identified and as long as these are within the remit of the programme then they will be evaluated at the end to ensure that they have been met. During the programme participants will be regularly asked on a formal basis for feedback concerning their progress. Consideration will be given to consider if their requirements are being met or whether they have changed and, therefore, if the programme needs to change. Other quality standards will apply to the qualifications and experience of trainers used on the programme.