Approaches to Providing Disability and Employment Information

by

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Abstract

Recent UK government initiatives have focused on the high level of unemployment within the disabled population and the overall effects this is having on the economy. To reduce this several branches of the government have introduced new programmes to support working age people with disabilities in the workplace. One area that has gained a great deal of attention is that of vocational rehabilitation and improving the return to work process.

The overall aims of this thesis were to identify the stakeholders in the return to work process and examine their disability and employment information needs. The purpose of this was to establish if the stakeholders' needs are currently being met and if not, how this could be improved by the development of a disability and employment information delivery tool.

To obtain data, three separate field studies were conducted: 1) semi - structured interviews with both employed and unemployed people with disabilities 2) focus groups with identified stakeholders in the employment process of people with disabilities and 3) assessments with 191 long-term unemployed participants on a government employment support programme. Data collected from these studies were used to establish that the needs of the stakeholders were not being met and that a more effective system for disseminating disability and employment information was needed. The results from these studies were also used to produce a framework for the development of an innovative tool that would support the information needs of the stakeholders.

KEYWORDS: disability, employment, reasonable adjustments, knowledge management, user needs analysis, Incapacity Benefit.

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Chapter 1: Introduction

The research conducted for this thesis set out to accomplish a number of aims related to the development of a tool that could provide information on disability and employment.

1.1 Disability and employment

The disadvantages that people with disabilities face in the labour market is currently being addressed by many countries, including the United States, Australia, Canada, and the member states of the European Union (Flynn 2003; Commission of the European Communities, 2000; Smith, A., 2002). The level of unemployment for people with disabilities in the United Kingdom has been gaining attention from the government (Kemp, 2006(a&b); Thompson, 2005; Prime Minister's Strategy Unit, 2005) due to a number of reasons but in particular because of the financial burden that it places on the economy (Tibble, 2005; Prime Minister's Strategy Unit, 2005; Booth et al, 2007; Kemp, 2006(a&b); Smith, A., 2002) as well as the negative physical and psychological implications for the person who is unemployed (Hiscock & Hodgson, 2005; Booth et al., 2007; Kemp, 2006(a&b); Fine & Griffiths, 2001; Schur, 2002; Smith, A., 2002; Ballard, 2006; Purdon et al., 2006). The Disability Discrimination Act (1995) defines 'disability' as; *"a person has a disability for the purposes of this Act if he has a physical or mental impairment which has a substantial and long-term adverse effect on his ability to carry out normal day-to-day activities"* (p. 2). This has obvious implications for the individual's ability to sustain gainful employment, as there will equally be adverse effects on their ability to carry out work related tasks.

In May 2007, The Disability Rights Commission Disability Briefing announced the following statistics (quoted from the April to June 2006 Labour Force Survey) (Disability Rights Commission, 2006):

- The disabled population of working age has increased from 6.4 million in 1999 to 6.9 million in 2006.

- Many disabled people work or want to work, 50% of disabled people of working age (3.5 million people) are in work and a further 20% of disabled people without a job (1.3 million) want to work.
- Since 1999, the overall employment rate of people with disabilities has increased steadily from 46% to 50%. Despite this, inequalities in the proportion of disabled and non disabled people in work persist, with only 50% of disabled people in work, compared with over 80% of the non disabled population in work.

One of the major issues concerning the number of people with disabilities being unemployed is the strain on the benefits system (James et al., 2006). In 2002 the government published a research study (Smith, A., 2002) examining this situation and found the following:

- 2.7 million people (7.5% of the working age population) were receiving Incapacity Benefits, this number was greater than all other types of benefits combined (i.e. Lone Parent, Job Seekers Allowance, Income Support, etc.).
- The Department for Work and Pensions records showed that once a person has been receiving Incapacity Benefits for a year, they only had a 20% chance of returning to work within the next five years.

The history of employment provision for people with disabilities in the UK is a long and detailed one, as Table 1.1 outlines the highlights in the last 60 years.

Table 1.1: Summary of Government schemes related to disability and employment

Period	Scheme	Details
1946	National insurance benefits	First government system for delivering benefits to unemployed individuals
1971	Invalidity Benefit (IV) & Sickness Benefit	In response to a growth in long-term sickness claims
Late 70s to mid 90s	N/A	Number of people on these benefits trebled
1983	Statutory Sick Pay	Replaced Sickness Benefit, covering the first 8 weeks of sickness
1992	Working incentive	First income-tested, in-work benefit for working disabled people was introduced
1995	Disability Discrimination Act (DDA)	Made it unlawful to discriminate against a person because of disability
1995	Incapacity Benefit (IB)	Replaced IV and Sickness Benefit, had stricter criteria and lower benefit levels
1996	DDA – employment provisions	Unlawful to discriminate against employees or potential employees. For companies with more than 20 people, employers are obligated to make reasonable adjustments for employees
1997	New Deal For Disabled People (NDDP)	Pilot of employment support programme specifically for people with disabilities
1999	Disabled Person's Tax Credit	Replaced 1992 benefit
2001	NDDP	National roll out
2003	Working Tax Credit	Replaced Disabled Person's Tax Credit, with additional payment on grounds of disability
2004	DDA – amendment	Employers of any size or description have a duty to make reasonable adjustments

A more detailed explanation of the most recent government schemes is provided in Section 2.1.2 of the Literature Review.

1.2 The Switch on to Success - Matching Abilities with Jobs programme

The research presented in this thesis originated as part of a pilot employment support programme called Switch on to Success - Matching Abilities with Jobs (SOTS – MAWJ). The proposal for the SOTS – MAWJ programme was submitted in response to a call for new employment support programmes to cover the South East Region of the United Kingdom. Funding was made available through co-financing between the European Social Fund and Jobcentre Plus, as part of the UK government's return to work initiate called Pathways to Work. In recent years the Department for Work and Pensions has committed substantial resources to getting benefit recipients, in particular those on Incapacity Benefits (IB), back into work (Prime Minister's Strategy Unit, 2005). The Pathways to Work scheme was introduced to increase the amount of support people on IB receive.

The premise behind the SOTS – MAWJ programme was to provide specialised support to individuals that had been unemployed for longer than 6 months. The aspect of this programme that was considered innovative, compared to other employment support programmes, was the addition of two staff specialists; a full time occupational psychologist, and a part time ergonomist. Although the initial proposal was specifically targeted at working age people with disabilities (people receiving IB) this was later amended, on the request of the funders, to include recipients of all types of benefits.

The role of the researcher and author of this thesis was to take on the responsibilities of programme's staff ergonomist. There were two parts to this role, firstly to use a computerised capability assessment system called AbilityMatch (AbilityMatch Ltd, 2007) to conduct assessments with each of the 300 participants that were to be signed onto the programme, and secondly to use the data collected from the assessments to contribute to the development of a 'solutions database' which could eventually link in with the original AbilityMatch assessment system. The purpose of the solutions database was to provide the user with information on 'reasonable adjustments' as set forth in the Disability Discrimination Act (2005), a more detailed explanation of this is presented in Section 1.4.

1.3 The AbilityMatch System

The AbilityMatch System (previously called the Activity Matching Ability System or AMAS) was initially developed by Loughborough University 25 years ago. Its primary use was as an assessment tool to help people with disabilities enter the labour market. The system was designed to help a user (employer, health care professional, employment intermediary, etc.) determine where a person with a disability may encounter a mismatch between their abilities and the requirements of a specific job. The employee, or potential employee, is asked a set of questions about their ability to complete specific tasks. This is then matched against an assessment of the tasks required for a job. The system then flags up any mismatches between the two. A more detailed explanation of the AbilityMatch system is presented in Chapter 5.

Over the last few years, research has been conducted to evaluate AbilityMatch and to determine how it might be enhanced to more effectively meet the needs of users (Haines et al., 2003; Hitchcock et al., 2007). AbilityMatch was found it to be an effective tool for assessing people with disabilities (Brown, 2003; Flynn, 2007). However the initial investigations showed that users commonly recommended that a "solutions database" be incorporated to offer information on reasonable adjustments when a mismatch was identified. Based on this feedback a feasibility study on creating such a database was conducted which found it a viable option and that a wide range of information was required by users (Geddes, 2002).

The purpose of this research was to develop a separate tool that could supply information on reasonable adjustments but also work in conjunction with the existing AbilityMatch assessment system. The funding received through the SOTS – MAWJ programme enabled the research into the development of the solutions database to continue. The programme was also able to supply a substantial sample of participants to gain further data on how the database, or a tool for delivering workplace solutions information, should be developed. Unfortunately due to constraints within the programme some data could not be collected from the participants but had to be obtained through other studies conducted by the researcher.

Although the aim of the sponsored research project was to produce a solutions database, the aims of this thesis were extended to examine the user needs of such a tool and if a solutions database was the best approach for meeting these needs. To accomplish these aims a human-centred design process was utilised to guide the investigation. This involved including potential users in the research to accurately understand the context of use, tasks and interaction that users would have with the tool. To collect all the data needed to meet the various aims, three separate studies were conducted which ran in parallel throughout the three years that the research project took place.

1.4 Reasonable adjustments

Most relevant to this thesis was the government's introduction of the employment provisions section of the Disability Discrimination Act (DDA) in December of 1996. This states that employers have a legal responsibility not to "unreasonably discriminate against existing and potential employees on the basis of their 'disability'". Additionally employers are charged with a duty to make 'reasonable adjustments' in the employment of people with disabilities. (AbilityNet, 2008).

The Disability Discrimination Act (1995, Part I, Section 6) specifically states;

> *Duty of employer to make adjustments*
> *Where:*
> *a) any arrangements made by or on behalf of an employer, or*
> *b) any physical feature of premises occupied by the employer,*
> *place the disabled person concerned at a substantial disadvantage in comparison with persons who are not disabled, it is the duty of the employer to take such steps as it is reasonable, in all the circumstances of the case, for him to have to take in order to prevent the arrangements or feature having that effect.*

The purpose of this legislation is to help decrease the disadvantage that people with disabilities face in the workplace (Roberts et al., 2003). However a number of publications have addressed the fact that employers have difficulty complying with the requirements because of their negative preconceptions or lack of knowledge on the subject of 'reasonable adjustments' (e.g. Thornton & Corden, 2001; Kelly et al., 2005; Needels & Schmitz, 2006; Aston et al., 2005). It has also been acknowledged that

employers are being given very little guidance on how to go about meeting this requirement or what issues people with disabilities face in the workplace (Hirst et al. 2004; Nice & Thornton, 2004; Thompson, 2005). There have also been major issues identified with the lack of unification between the stakeholders involved in the return to work process (Kemp, 2006(a); Prime Minister's Strategy Unit, 2005; Robinson, 2000; Booth et al., 2007). The most pressing issue for employers is that, regardless of their lack of knowledge, they are expected to make reasonable adjustments for their employees or potentially face legal action (Crampton & Hodge, 2003; Lewis & Goldman, 2002; Wells, 2003). However there has been no evidence of a comprehensive system for offering information to employers, or other stakeholders in the return to work process, on how to successfully introduce 'reasonable adjustments' in the workplace.

The current sources of information, on the subject of 'reasonable adjustments' mainly come from government schemes, non-profit organisations, and private consultancies. With each of these sources there are a number of positive and negative points to consider, the following is a summary of each:

- Government schemes – The UK government introduced the scheme 'Access to Work' to supply the resources necessary for employers to make adjustments in the workplace for employees affected by a disability or health condition (Direct.gov.uk, 2007). The scheme has been very successful (Thornton & Cordon, 2001; Thompson, 2005; Thornton et al., 2001) but in October 2007 access to the scheme by government departments was suspended (RADAR, 2005). The impact of this could be substantial since public organisations have typically been key employers of people with disabilities (Hirst et al., 2004). For employees that do qualify for Access to Work support, the minimum waiting time for an assessment is six weeks. Subsequent to this the length of time for the adjustments to be implemented will depend on their complexity and could take anywhere from a few days to six months.
- Non-profit organisations – Groups such as The Disability Rights Commission, Yourable, AbilityNet, Employers Forum on Disability, and specific disability organisations (e.g. Royal National Institute for the

Blind) frequently supply information about reasonable adjustments either in the form of fact sheets (via a website) or as a service. The fact sheets could be considered helpful as a starting point but are generally too vague to help a stakeholder implement an actual adjustment for an employee. The services that are offered by these types of organisations can include job site accommodations but this would be for a fee on a consultancy basis.

- Private consultancies – There are many private companies that offer advice on reasonable adjustments or will conduct job site accommodations. The potential advantage of using a consultancy to conduct workstation adjustments is the reduced lead time for completing the job, however depending on the length of time needed to complete the assessment, produce the recommendations, and implement them the cost can vary between £200 and £1000 (personal communication).

The issue with the current process of arranging a workplace adjustment for an employee with a disability is the real or imagined resources that are required to implement it. Many studies have found that employers assume that making adjustments is a costly and time consuming endeavour (e.g. Hernandez et al., 2008; Zwerling et al., 2003; McFarlin et al 1991). However extensive research has shown that the majority of adjustments are free or when there is a cost it rarely exceeds £500 (Needels & Schmitz, 2006; Schartz et al, 2006; Galvin & Scherer, 1996). For an employer to avoid spending a prohibitive amount of time or money on making the necessary changes, it may be more practical to do it themselves. If this is to be an option then some support in the form of information provision must be available to the employer whilst also being representative of the needs of the person with the disability. The purpose of this research was to explore one potential solution to providing this support, the development of a tool specifically designed to deliver information on reasonable adjustments to users.

Government departments such as the Department for Work and Pensions, the Health & Safety Executive and the European agency for Health and Safety at Work have published a considerable amount of research

identifying the causes and repercussions of work illness, with an emphasis on prevention. However there has been a lack of research investigating the information needs of the stakeholders involved in supporting a person in the return to work process once an illness has occurred. This gap in knowledge is what this thesis aims to address.

1.5 Aims

The aims of the research presented in this thesis were to:

- Determine if the existing system for providing work related information to people with disabilities was adequate or to substantiate that there was a need for an improved system.
- Identify the stakeholders in the return to work process for people with disabilities, establish what their role was and where they fit into the process.
- Determine the information needs of the stakeholders.
- Develop a framework that would meet the needs of the stakeholders.

1.6 Research approach

The subject of 'reasonable adjustments' falls under the broader discipline of disability management. Many sources (e.g. Kearns, 1998; Granger, 1984; Paton, 2003; Cook, 1995; Watson et al, 1990) have made recommendations on what features should be included in an effective disability management plan, generally they include:

1. Assessment of the person's capabilities.
2. Identification of work related tasks.
3. Determining the potential problems with a specific workplace.
4. Identification of solutions, rehabilitation or training needs.
5. Finding the right organisation to meet these needs.
6. Getting funding to support any additional needs.

The AbilityMatch system fits into this process by providing a tool that has the capacity to accomplish steps 1-3. However the information necessary to carry out steps 4-6 were not included in AbilityMatch. The theory behind this research was to develop a tool with this capability which would have the potential to empower and educate the user to a point where they are able to

integrate a reasonable adjustment or 'work solution'[1] with less dependence on outside organisations. This could increase employers' awareness and acceptance of people with disabilities, decrease disruption to the workplace by involving the stakeholders and speed up integration for the employee. It could also provide a standardised way of evaluating an individual's needs without prejudice and offer employers a tool to help them determine whether the required work solutions are considered reasonable under the DDA.

In order to develop a tool that would suitably meet the needs of the user, it was necessary to take a human-centred design approach. The International Standards Organisation set forth specific guidelines for designing an interactive system using this approach (International Standards Organisation, 1999). The document outlines that the following general activities should be incorporated into a design plan:

- To understand and specify the context of use.
- To specify the user and organisational requirements.
- To produce design solutions.
- To evaluate designs against requirements.

The primary objective of this thesis was to guide the development of a tool that could provide information on disability and employment to stakeholders in the return to work process. This concept of information organisation is closely related to the field of knowledge management, so these principles were also applied to the data collection. As presented by Walsham (2001) the objective of knowledge management is to decrease the duplication of effort within an organisation or community and to improve efficiency. This concept was incorporated in the research by ensuring that the data collected considered what practices needed to be supported, what was the organisational culture, what were the knowledge sharing practices of stakeholders and how can information and communication technologies support the needs of the stakeholders (Walsham, 2001).

[1] The term 'work solution' was used by the developers of the AbilityMatch system to be used interchangeably with 'reasonable adjustments' or 'reasonable accommodations' but avoiding the legal connotation associated with the terminology used in the DDA or ADA.

1.7 Research presented in this thesis

The overall objective of this thesis was to explore the development of a tool that would support the information needs of stakeholders involved in the return to work processes for people with disabilities. In order to collect the data necessary for the development of this tool three separate field studies were conducted, which essentially ran in parallel:

1. Study 1 - Semi-structured interviews with employed and unemployed people with disabilities (n=33) to ascertain the current delivery of information on employment related topics to people with disabilities; to establish who the stakeholders were in the employment process for a person with a disability; and to determine what the content and structure of the system should be.
2. Study 2 - Focus groups with identified stakeholders in the employment process of people with disabilities (n=25, groups=4) to establish their current role in the process; what they need support with; and how a system could help them.
3. Study 3 - Data collection from AbilityMatch assessments with participants of an employment support programme (n=191) to establish the pattern of tasks affected by specific impairments and to determine how the system would be structured to link in with the existing AbilityMatch system.

Once these data were collected and analysed it was possible to develop a framework for a disability and employment information tool. This framework identified the needs of the person with a disability throughout the stages of the return to work process as well as how these needs relate to the other stakeholders.

1.8 Scope and limitations

This research was constrained by the sponsors' requirements. Whilst the funding allowed the research to take place, it drove its initial direction and ultimate deliverables. By requiring a solutions database to be developed for use with the AbilityMatch system, the research was limited in the range of assessments that could be used to collect the data. This was due to the need for any expansion to the existing AbilityMatch system (including the solutions database) to be based on the structure of the AbilityMatch

assessments. Additionally the scope of the SOTS-MAWJ study was constrained by the requirement to use a sample that was beyond the control of the researcher as well as the limited access to participants and other stakeholders for extended data collection. Because of these limitations it was necessary to conduct additional studies outside of the SOTS-MAWJ study, in order to collect data that was not subject to these constraints.

1.9 Outline of the thesis

The thesis comprises three studies, following a literature review, each of these addressed particular issues relating to disability and employment. Figure 1.1 attempts to show the relationship between the chapters in this thesis. A number of issues were addressed through multiple data collection approaches, the results of which are evaluated and discussed in Chapters 3, 4 and 5. An overview chapter then integrates the findings from the research to produce a list of user requirements at different stages in the return to work process along with recommendations for disability and employment information systems. Conclusions and recommendations for future research are presented in the final chapter.

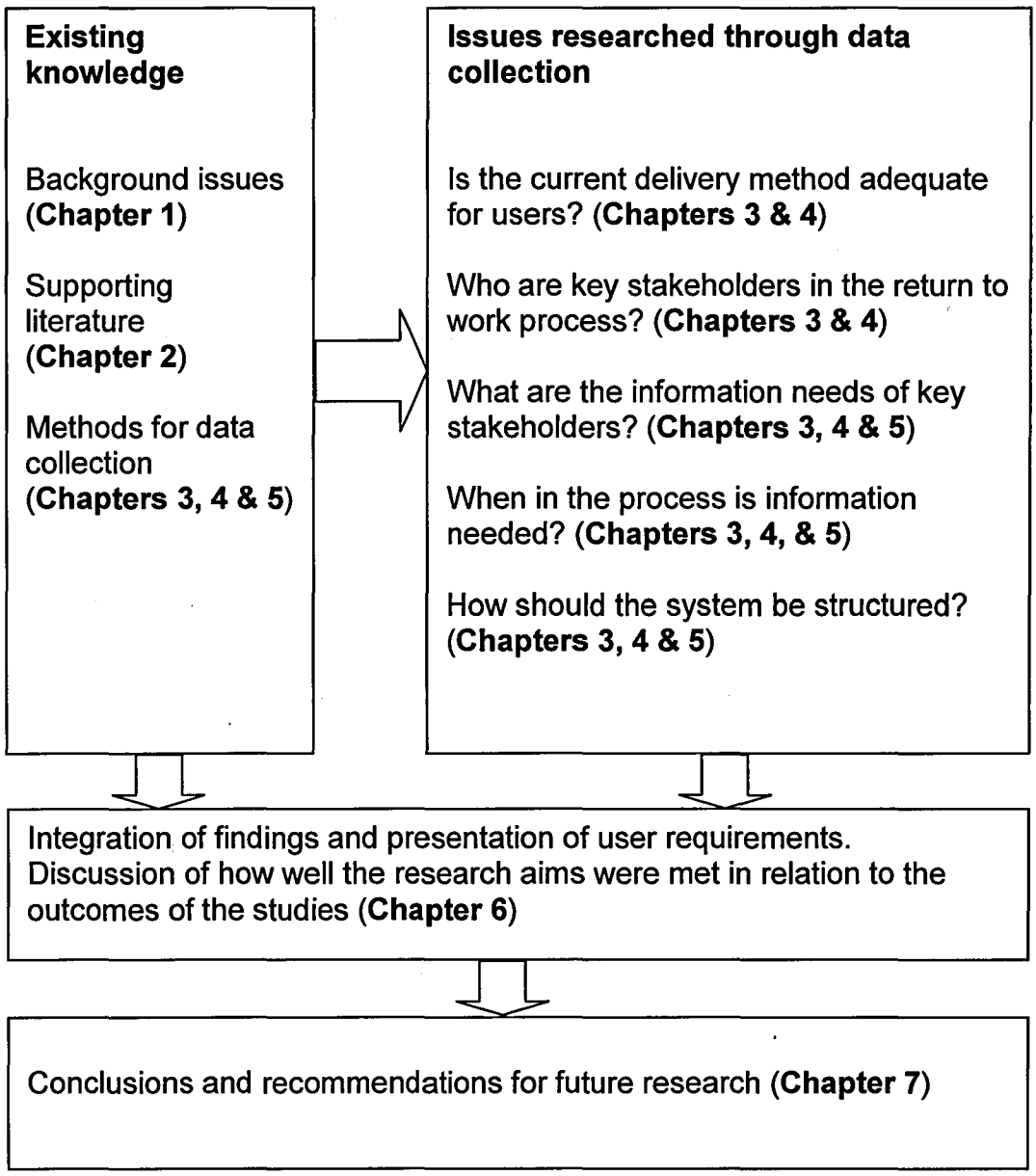

Figure 1.1: Outline of thesis

Chapter 1: Introduction – presents an overview of the research topic; background to the study; aims and objectives of the research; a summary of research carried out in this area; scope and limitations of the research, and an outline of the thesis.

Chapter 2: Literature Review – reviews disability and employment policy in the past, present and future; identifies the stakeholders in the return to work process for employees with disabilities; examines disability management procedures; considers the use of knowledge management and user needs analysis theory in designing systems.

Chapter 3: Survey of Working Age Disabled People – describes interviews with 33 people of working age with disabilities to identify; who the professionals are that they are likely to encounter; when they encounter them within the return to work process; what information they provide to the participants; what information participants are lacking and presents the results of the interviews.

Chapter 4: Focus Groups with Stakeholders – describes focus groups conducted with four sets of participants from key stakeholder groups to determine; their role in the return to work process; what their information needs are and if they are currently being met; what requirements they would have for an information delivery tool to support their clients and presents the results of the focus groups.

Chapter 5: AbilityMatch Assessments with Employment Support Programme Participants – describes the AbilityMatch assessment system and the data collected from 191 assessments conducted throughout the study which were used to establish; if the AbilityMatch assessment system produced valid results; if the data collected could be used to establish trends; how the trends could contribute to the development of an information delivery tool and the presents the results of the assessments.

Chapter 6: Discussion – presents the user requirements of an information delivery system for the stakeholders involved in the return to work process and describes a directory of solutions submitted to the project sponsors, based on the findings of Chapters 3 – 5.

Chapter 7: Conclusions and Future Work – Summarises the research and proposes further work.

Chapter 2: Literature review

2.1 Disability and Employment Policy

2.1.1 International policy

There have been recent changes to the prominent policies related to disability and employment in many industrial countries, the first of which was the United States introduction of the 'Americans with Disabilities Act' in 1990, then Australia with the 'Disability Discrimination Act' in 1992, Canada's 'Employment Equity Act' in 1995 and most European countries following suit between 1995 and 2001. The UK brought in its legislation with the 'Disability Discrimination Act' in 1995, and its subsequent employment provision section in the following year, thus leading the way in Europe for addressing the needs of people with disabilities in employment. Although the UK already has a well established anti-discrimination law for people with disabilities, in the near future it will fall under Community law and the jurisdiction of the European Court of Justice. This means that employers in the UK will soon have to follow the EU directive which outlines two guidelines for the obligation of making accommodations *'on one side the effectiveness of the accommodation in enabling the disabled person to access employment, and on the other side the financial cost of the accommodation for the employer'* (Wells, 2003, pg 264). It is predicted that this will make decisions of discrimination based on the failure to make adjustments more straightforward, in that if the adjustment requested was reasonable and the employer failed to make the adjustment, there is no legal defence. Although this is similar to the current UK legislation it is intended to be less open to individual interpretation and therefore more enforceable (Wells, 2003).

The European Union has published reports in the last 10 years that highlight their recognition of the social and physical barriers that people with disabilities face in everyday life and specifically in accessing employment (European Commission, 2000; Commission of the European Communities,

2000; Flynn, 2003). The main focus of these reports has been on the removal of these barriers:

> *'The approach to disability endorsed by the European Union acknowledges that environmental barriers are a greater impediment to participation in society than functional limitations. Barrier removal through legislation, provision of accommodation, universal design and other means, has been identified as the key to equal opportunities for people with disabilities'* (Commission of the European Communities, 2000, pg 3).

There has also been an emphasis on retention issues with the recognition that early intervention through organisational policy changes (adaptation or redeployment) may be more effective and financially viable than reactive schemes (European Commission, 2000).

In 1994 HORIZON was established as the strand of the Employment Community Initiatives which would support the Member States and the Commission in addressing issues that people with disabilities face in society and work. They set out the following aims with regards to employment (Flynn, 2003; pg 1):

- *'The matching of training and work experience with information and support measures.*
- *Improving the delivery of services based on the individual needs of people with disabilities and strengthens cooperation between professionals and actors in the field.*
- *Challenging attitudes amongst employers, trade unions and other local actors in pursuit of more holistic approaches.*
- *Involving people with disabilities as actors in their own progress towards open employment.'*

2.1.2 Policy in the UK

The addition of Part II (the Employment Provision section) of the Disability Discrimination Act in 1996 marked the initiation of the UK government's concentrated policy commitment to increasing the employment levels of people with disabilities. This piece of legislation, which was based on the Americans with Disabilities Act, made it unlawful for employers with more than 20 employees to discriminate against employees or job applicants on the grounds of disability. A specific aspect of the Act was the introduction of the requirement for 'reasonable adjustments' to be made by employers to their recruitment procedures and/or premises to prevent disabled people being at a substantial disadvantage compared to able bodied people.

Initially this aspect of the Act was only applicable to employers with 20 or more employees. On the 1st December 1998 the exemption threshold was reduced to 15, and in October 2004 the government extended the reasonable adjustments duty to all employers regardless of the number of employees (Roberts et al 2003; Kemp, 2006).

To support the increased promotion of employment for people with disabilities the government also introduced the Welfare to Work reform in 2006 and a number of work and well-being agendas. The ultimate goal of these was to offer more flexibility and efficiency in the return to work process, so that employers, intermediaries, and specialists could work together to offer better support to the individual (Booth et al, 2007).

Research into how to best tackle the barriers faced by people with disabilities in employment have raised several key points that needed to be addressed in order to achieve any progress:

- Offer more service provision for people wanting to manage their health conditions (Pathways to work, 2002).
- Increase awareness about disabilities in general, and promotion of the DDA (Hirst et al., 2004).
- Supply more information to employers about the importance of occupational health, and early interventions for dealing with sickness absence (Thompson, 2005).

A number of recommendations were made in a document published by the Prime Minister's Strategy Unit (2005) these included:

- A government system that is more straightforward in its handling of disability service provision.
- Increased access to legal council and/or advice to ensure people with disabilities and their families are aware of their rights and entitlements.
- Improve the strategy and availability of vocational rehabilitation services especially Access to Work.
- Build on the case manager approach for helping people with disabilities to find appropriate employment.

Purdon (2006) made similar recommendations, that employers be more involved with the return to work process and the options available for making adjustments or accessing vocational rehabilitation advice, as well as instilling in health care professionals the importance of return to work strategies.

A number of major changes have affected the unemployment system for people with disabilities in Britain since 1997 (Berthoud, 2006). One of these changes was the restructuring of the Employment Service and Benefits Agency to bring them together under Jobcentre Plus. This was done to transform the image and function of these agencies into a more positive trend towards employment instead of benefit dependence. This amalgamated branch of the Department for Work and Pensions aimed to ensure that individuals who need financial support will receive it, but would also support any efforts on the part of the client to gain employment (Corkett et al., 2005).

New Deal for Disabled People, which was introduced in 1997, was the first return to work programme for people on disability associated benefits that took a case management approach with dedicated advisors (Kemp, 2006(b)). This programme was an integral part of the exploratory work that the government undertook to determine how best to support the needs of people with disabilities in the return to work process.

The most recent major government programme to be implemented was the Pathways to Work scheme which was the first of its kind, by any government, to offer specialised support for job seekers that have health conditions or disabilities. This scheme has run pilots nationally with the underpinning paradigm to address the barriers that people with disabilities face in entering employment. Initial evaluations of the scheme have shown that it has had significantly decreased the number of people claiming Incapacity Benefits within the first six months (Bewley, 2007). Specifically the Pathways scheme was initiated to tackle a number of issues that were identified in the existing framework, these issues are outlined below (Hutton, 2006, pg. 18):

- *'Little is done to prevent people moving onto incapacity benefits.*
- *The gateway to the benefits is poorly managed – with claimants receiving incapacity benefits before passing the main medical test.*
- *The benefits trap people into a lifetime of dependency – the longer a person remains on benefits, the less chance they have of leaving.*
- *There are perverse benefit incentives – paying more the longer people claim.*
- *Almost nothing is expected of claimants and little support is offered. Those who try to plan their return to work through volunteering and training perceive that they run the risk of proving themselves capable of work and therefore losing their entitlement.*
- *The very name of the benefit sends a signal that a person is incapable and that there is nothing more that can be done.'*

This 2006 Green Paper set forth three main targets to reduce the number of people on Incapacity Benefit by 1 million people in the upcoming years; 1) increasing the number of people who remain in work when they fall sick or become disabled, 2) increasing the number leaving benefits and finding employment, and 3) better addressing the needs of all those who need extra help and support. One of the major changes being made to help reach these targets is the replacement of the current benefits available to people with disabilities, Incapacity Benefit and Income Support, with the new Employment and Support Allowance. There are several goals for this benefit, the main one being the simplification of the overall process of applying for and receiving the benefit. However, there are several new services and interventions that will accompany this reform, to ensure that everything possible is done to keep or move applicants into employment (Corden et al., 2005). The following is a list of these elements (Hutton, 2006, pg. 19):

- *'a new, much more intensive framework of mandatory work-focused interviews delivered by specially trained personal advisers;*
- *better access to existing return-to-work support and entirely new programmes, delivered in partnership with the NHS, to help individuals to manage their health conditions;*
- *improved financial and non-financial incentives to prepare for and find work;*
- *active involvement of employers in helping people to prepare for and progress in work; and*
- *work to change prevailing attitudes held towards people with illness or disability among other key stakeholders, particularly GPs and employers.'*

In 2004 the Department for Work and Pensions (DWP) released details of a new framework focusing on Vocational Rehabilitation in its publication 'Building Capacity For Work: A UK Framework For Vocational Rehabilitation' (Kennedy, 2004). Components of this framework included a strategy by the Health and Safety Commission which committed the Health and Safety Executive (HSE) to work with the DWP to manage sickness absence and return to work through Occupational Health programmes and Safety and Rehabilitation Support Pilots. This included a joint initiative between the DWP and the Department of Health with assistance from the HSE to run a pilot programme that focused on increasing individual's contact with healthcare services and workplace support. The National Health Service (NHS) would also widen the support and guidance on occupational health problems available to employers through their Occupational Health departments.

The UK government has also recognised that early intervention plays a key role in battling dependency on benefits, so they set forth an agenda of detailed strategies to support this. The catalyst for this approach was the publication of 'Health, work and well-being' (HM Government, 2005) which established a partnership between the health departments and the Health and Safety Executive. The goals of this alliance were the following (pg. 25):

- *'ensure all employees have access to competent occupational health advice and support;*
- *support and engage healthcare professionals so that they recognise the importance of work for their patients' well-being;*
- *make sure investigation and treatment for health problems can be accessed in a way which will help people to remain in work and avoid unnecessary absence;*
- *identify ways to improve the provision of, and access to, interventions for managing common mental health problems that can lead to long-term ill health with the consequent impact on work and well-being;*
- *ensure the development of appropriate return-to-work support, building on the actions outlined in the Framework for vocational rehabilitation;*
- *lead by example in supporting the NHS, government and local authorities as employers to become exemplars of good occupational health practice; and*
- *continue to challenge any discrimination in employment that exists against long-term sick and disabled people.'*

The strategy for meeting these goals has been to initiate a programme called Workplace Health Connect (HSE, 2006) which will *'deliver advice on occupational health, safety and return to work to small and medium-sized enterprises in England and Wales. It will consist of an advice line with an associated website and a workplace-focused regional problem-solving service with signposting to specialist help.' (pg.18)*. The pilot project for this programme has been completed at the time of writing, however the government had not yet released any finding on the outcomes.

The government also aims to decrease sickness absence by ensuring that employers help support early intervention strategies and healthy work environments. The incentive they will offer to employers who perform well in these areas is a reduction in the Employers' Liability Compulsory Insurance, which is required by all business owners.

Supporting healthcare providers, especially GPs, to change their process of dealing with people who are out of work due to illness is high on the agenda. A number of programmes will be initiated to offer this group of stakeholders more education and assistance to ensure that patients are encouraged to return to work as quickly as possible. One of the ways in which this will be done is to increase the direct services available to healthcare professionals onto which they can refer patients for support. Mental health teams will also be expanded to meet the increasing demand of services for people with mental health issues.

Currently there are two ways to initiate receipt of the Incapacity Benefit:

1. If the person is employed they can initiate a short term claim by obtaining a letter from their own doctor stating they are unable do the tasks associated with their current job, this notification is valid for up to 28 weeks. After the 28 weeks a personal capability assessment is required.
2. If the person is unemployed a personal capability assessment is required from a government approved doctor. The criterion for this assessment is that 'a person satisfies the PCA if their ability to perform any individual task is seriously curtailed, or if there is a lesser degree of impairment across a number of activities.' (Smith, A., 2002, Annex A).

Research has shown that 90% of people who go onto Incapacity Benefit expect to return to work within a couple of months, which indicates that the majority of those who receive the benefit do not have severe health conditions (Smith, A., 2002). These are the people that the government reforms will be targeting by engaging them in work related activities to ensure that they do not become long term benefit recipients. Although those with severe disabilities will still be able to collect benefits, they will be offered more support to enter the workforce if they chose to do so. The use of AbilityMatch, with the addition of a solutions database, would be of benefit to people with both short-term and long-term disabilities by offering work solutions information on how to support their additional needs.

The main method currently available to support the 'reasonable adjustment' needs of people with disabilities is the government funded programme Access to Work. This is done by either the employee or employer making an application, then an advisor reviews the support needs and may chose to have an assessment carried out by a specialist. There are four types of support Access to Work can offer: transportation to work costs (e.g. taxis or adapted vehicles), providing a support worker, adjustments to the workplace, and equipment or assistive technology (Directgov., 2008). This programme has received excellent feedback from users, with almost half stating that they would not have been able to work without this support (Thornton et al., 2001). However other research has shown that a very high percentage of users were from the public sector, thus reducing the resources available to small and medium employers for which the programme was intended (Thompson, 2005), because of this the government recently announced that it would no longer be available to the public sector (RADAR, 2005). This leaves a large number of employers without the support they require to accommodate employees with disabilities. By including a tool that can offer work solution information to the current AbilityMatch assessment system an alternative source of support would be available to these employers.

The Access to Work programme has been very important in raising the profile of reasonable adjustments, as well as demonstrating that in most

cases they are not costly or complicated. An evaluation of the programme however revealed several issues with the programme; length of time taken to set-up the adjustments, an overly complex application process, a lack of information on what services are available, and a lack of information about the programme being made available to the public (Thornton et al., 2001). For some employers these issues may be additional reasons for seeking an alternative to the government's Access to Work programme.

2.1.3 Stakeholders

The main stakeholders in the return to work process, i.e. those that gain from a positive outcome, fall into five general categories: employees (those with disabilities), employers, health care providers, government (payers), and volunteer organisations (Young et al, 2005; Commission of the European Communities, 2000). Until recently the brunt of responsibility for establishing return to work programmes has been on employers as part of their responsibilities under the DDA. In the absence of support from employers the burden to perpetuate the return to work process has fallen on the employees themselves, often ending in their employment being terminated (Sainsbury & Davidson, 2006). However as presented in section 2.1.2, the government has recently set in motion several initiatives to ensure that all of the stakeholders share the responsibility, to ultimately increase the chances of a successful outcome.

Some of the issues identified as being a barrier to an effective return to work process are: the length of time taken to receive treatment from the NHS, a lack of dedicated services and information on work related subjects, and inadequate links between available worker support organisations with GPs and employers (James et al., 2006; Purdon, 2006). As presented in section 2.1.2 since 1997 there has been a strong emphasis in the UK on expanding government services and programmes to support employees in the return to work process by addressing the issues that have been identified with the other stakeholders. Details about each of these stakeholders will be considered separately in the following sections.

Employees

In one of the few UK studies that examined the obstacles for employees with disabilities in accessing employment, Robinson (2000) found that two of the main issues were 1) the lack of understanding about the capabilities of people with disabilities and 2) the lack of knowledge concerning the support available to people with disabilities to help them access work or to make adjustments. Part of the difficulty with supplying information on these topics is the diversity of needs that people with disabilities have depending on their situation (Feuerstein, 1997). A number of factors have been found to affect the employment situation for people with disabilities (Needles & Schmitz., 2006; Berthoud, 2006; Sainsbury & Davidson, 2006; Althoff & Felchner, 2002; Schur, 2002), including;

- Type of impairment – Mental health issues, intellectual impairments, and physical impairments (musculoskeletal) were associated with the lowest employment rates. Individuals with sensory impairments and health conditions such as diabetes, cancer, high blood pressure etc. have the highest level of employment.
- Severity of impairment – Employment rates are inversely proportional to the level of severity for all impairments.
- Cause of impairment – Impairments caused by an injury are associated with a higher rate of employment than impairments resulting from a health condition.
- Age – The older an individual is when they acquire an impairment the less likely they are to return to employment.
- Gender – Women are more likely to return to work after acquiring an impairment than men.
- Type of employer – Employees working for small or very large employers are more likely to return to work than employees with medium or large employers.
- Personality traits of the employee – Employees with a high degree of resiliency, proactivity, willpower, and conscientiousness, are associated with a higher rate of employment.

It must be noted though that in a study by Burkhauser et al. (2002) it was found that employment rates of participants with disabilities were not necessarily related to the individual's impairment but whether or not they reported a work limitation due to the impairment. Of all the factors listed above the relationship between the employer and employee is most often cited as being related to the employment outcome. Employers that are supportive and actively involved in the employees return to work process show much higher success rates than those that do not (Smith, A., 2002; Sainsbury & Davidson, 2006; Booth et al., 2007).

As presented in section 2.1.2 the support for people with disabilities in employment is being augmented and legislation will become more enforced in the upcoming years to ensure that employees, or potential employees, have more opportunities for employment. Equally the responsibilities of the employees themselves will increase as the eligibility for benefits will depend on the individual's involvement in job seeking. Additionally fewer people will be deemed unable to work, as assessors will consider the individuals residual capabilities as opposed to their limitations for carrying out work related tasks (Hutton, 2006).

Health care providers

Several studies have found that GPs are the first person with whom an individual experiencing a health related issue will have contact, therefore they are in a strategic position for offering support and advice on how to effectively manage a condition or disability in the workplace (e.g. Booth et al, 2007; Smith, A., 2002; Chang & Irving, 2008; Beaumont, 2003). One of the key aspects of the GP's role is to issue sickness certificates. Research conducted on how they view this responsibility has shown that they are most likely to support a patient's decision about whether or not they wish to be 'signed off' as they see it as part of their advocacy role, but they failed to offer longer term return to work support once the patient was off work (Wolstenholme, 2005; Mowlam & Lewis, 2005; Sainsbury & Davidson, 2006).

The fact that GPs have failed to promote the benefits of working to their patients is in direct conflict with the vast amount of research that has shown the negative psychological, social and physical consequences of being off work and the importance of early interventions, which GPs are in the best position to initiate (e.g. Fine & Griffiths, 2001; Booth et al., 2007; Schur, 2002; Smith, A., 2002; Ballard, 2006; Thompson, 2005; Purdon et al., 2006). There have been many reasons identified as to why GPs have not taken on a proactive role in managing sickness absence, they include: limited time with patients, limited knowledge on occupational health, difficulty with locating information on occupational health topics, lack of confidence and training in performing disability assessments and potential conflict with their patients wellbeing (Mowlam & Lewis, 2005; O'Fallon & Hillson, 2005; Haafkens et al., 2005; Chang & Irving, 2008). Additionally medical professionals are trained to view health conditions as they relate to pathology and are not necessarily aware of the effects that the disability or health condition will have on work related tasks (Kettle & Massie, 1986; Booth et al., 2007).

In addition to the government's Vocational Rehabilitation Framework document, independent research conducted on the role that GPs should adopt within the overall return to work process has produced consistent recommendations. Mainly the role of the GP has been seen as the 'gatekeeper' to other services that can assist the patient in work and where the GP is responsible for signposting patients to available support (Nice & Thornton, 2004; Beaumont, 2003; Thompson, 2005). However research has shown that for the most part GPs are not aware of the services available outside of the Primary Care Trust, especially those associated with the DWP (e.g. Jobcentre Plus and Access to Work) (Wolstenholme, 2005; Chang & Irving, 2008; Mowlam & Lewis, 2005). Therefore in order to ensure that medical professionals are able to provide the information that their patients require, an improved programme for educating and training GPs on occupational health and vocational rehabilitation is being advocated (Wynn, 2003; Thompson, 2005). Additionally the system of communication between the various stakeholders needs to be strengthened to ensure GPs are aware of the support that is offered by other groups of stakeholders

(Beaumont, 2003). Within the stakeholder group of health care providers the only professionals that were directly referred to in the literature were GPs, although there are several other professions under this umbrella, including nurses, physio and occupation therapists and psychologists.

As presented in section 2.1.2, since health care providers are being encouraged to find alternatives to signing patients off sick, the government has been investing in programmes for these professionals to increase awareness and education about how to manage a disability in employment. Additionally there is an increase in the services available to health care providers, onto which they can refer patients if they need employment advice concerning their disabilities.

Government

The role of the government in the return to work process is multi-faceted and sometimes at odds with the various roles it holds. An example of this is the differing functions of the NHS and the DWP. The NHS is responsible for ensuring that an individual's medical needs are met, this may include a recommendation of taking time off work for recovery and rehabilitation. On the other hand the DWP, including Jobcentre Plus, is responsible for determining if an individual is 'disabled enough' to warrant the receipt of benefits when an individual needs time off work due to a disability or health condition. Additionally the DWP is the main source of support programmes for helping people with disabilities to gain or retain employment.

A significant amount of research has been conducted into the level of knowledge and effectiveness of various government programme advisors including Jobcentre Plus Advisors, Disability Employment Advisors, and the more recent Incapacity Benefit Personal Advisors (e.g. Smith, A., 2002; Knight et al., 2005; Corkett et al., 2005; Dixon & Warrener, 2008). This research concluded that advisors who were supporting benefit claimants with disabilities or health conditions generally encountered similar difficulties in their jobs, which included: limited time with clients, a lack of awareness concerning the work related implications of health conditions, limited knowledge of the provision available to clients, as well as the roles of other

agencies. Ultimately this resulted in a lack of referrals being made by advisors to channel clients onto appropriate support, due to a lack of coherence in the overall system (Smith, A., 2002). However in the past recommendations for more staff training have been met with managerial concerns over lost working time (Talbot et al. 2005). At the time of writing this aspect of the government is being restructured and augmented to place an emphasis on getting people with disabilities who can work, into work, instead of perpetuating the benefit cycle. The initiatives that are being undertaken to improve the overall system were discussed in section 2.1.2.

Employers

This group of stakeholders is defined by Young et al. (2005, pg. 553) as: '*Employers are the organizations employing the person experiencing work disability and include individuals relating to the worker through the workplace (i.e., owners, supervisors, human resources managers, co-workers, etc.)*'. There are many reasons for an employer to ensure that an effective disability policy, including making reasonable adjustments, is in place. These include legislative pressure, ability to meet the needs of a broader customer base, retention of experienced employees, a decrease in lost productivity, reduced insurance premiums and corporate social responsibility (Dibben et al., 2002; Althoff & Felchner, 2002; James et al., 2006; Crampton & Hodge, 2003; Lewis & Goldman, 2002; Simm et al., 2007). Despite these compelling motives many organisations still struggle with meeting the current legal and social guidelines against discrimination.

A considerable amount of research has been undertaken to determine what obstacles employers have concerns about when considering employing a person with a disability. The findings have consistently produced a list of the same issues; cost of making adjustments, increased sickness absence, lower productivity, poor understanding of the disability, and potential resentment from co-workers (Aston et al., 2005; Hirst et al., 2004; Roberts et al., 2004; Kelly et al., 2005; Needles & Schmitz, 2006). In opposition to the preconceived ideas about what barriers may be encountered are the results of studies that have shown that in reality accommodating a person with a disability in the workplace is less expensive and requires less effort than

predicted (Galvin & Scherer, 1996; Roberts et al., 2004; Kelly et al., 2005; Simm et al., 2007) and employees with disabilities do not differ from non-disabled employees in job performance and sickness absence (DuPont, 1993; McFarlin et al., 1991).

There are characteristics relating to the employer that have been shown to affect the attitude toward, and practice of, employing a person with a disability. Generally larger companies and public organisations are more proactive and compliant with the DDA and their duty to make reasonable adjustments, mainly because they possess more of the knowledge and resources necessary to make necessary changes (Kenny, 1999; Thornton & Corden, 2001; Thompson, 2005; Nice & Thornton, 2004). Conversely smaller companies have been found to view the process as more difficult especially where organisational or duty changes were required and have less knowledge of the DDA and disability in general (Kenny, 1996; Kenny, 1999; Kelly et al., 2005; Roberts et al., 2004).

One of the main issues identified as crucial to the success of employing a person with a disability is education and awareness of the person's needs and abilities. One of the reasons that larger organisations are thought to be more confident with employing people with disabilities is because they have better access to staff that possess the necessary knowledge such as occupational health advisors, human resource personnel and links with external support organisations (Kelly et al., 2005; Aston et al., 2005; Nice & Thornton, 2004; Bruyere, 2000). Research into both large and small employers' levels of knowledge on disability related topics have shown that a number of areas are deficient, these include:

- what constitutes a 'disability' under the DDA,
- in-depth knowledge of the DDA,
- how to make adjustments for employees,
- what effects specific disabilities, especially mental health issues, have on work,
- and information on support organisations and government agencies dedicated to employment for people with disabilities.

These studies have gone on to advocate improved dissemination and access to these types of information in order to increase employers' knowledge and improve the employment situation for people with disabilities (Roberts et al., 2004; Kelly et al., 2005; Needels & Schmitz, 2006; Aston et al., Dewson et al., 2005; Simm et al., 2007; Suff, 2004; Hernandez et al., 2008).

Volunteer Organisations

Although volunteer organisations have been shown to play a key role in supporting people with disabilities in daily activities as well as work (Boardman, 2003; Hinman, 2001), this group of stakeholders has received little attention in the literature. Additionally there has not been any mention in plans by the government to alter or strengthen the services this group of stakeholders provide.

2.1.4 Disability management

According to Shrey (2005, pg. 5) *'Disability management is operationally defined as an active process of minimising the impact of an impairment (resulting from injury, illness, or disease) on the individual's capacity to participate competitively in the work environment'*. Disability management has two main objectives, to decrease disability related costs and to facilitate the return to work process for employees with disabilities or health conditions (Watson et al., 1990; James et al., 2006).

A considerable amount of literature has been published outlining the key elements of an effective disability management programme (e.g. Dibben et al., 2001; Shrey, 1995; James et al., 2006; Beaumont, 2003), they include:

- having an established organisational disability policy,
- promotion of early intervention strategies,
- regular consultation with employees that require additional support,
- making adjustments to the employees' environment or duties, to accommodate any functional limitations that result from their disability,
- and strong relationships with vocational rehabilitation services, including health care providers, occupational health and safety professionals, government services (e.g. Access to Work).

In order to benefit from long term gains such as reduced illness costs, increased productivity, lower insurance premiums, less chance of litigation for non-compliance with the DDA, and a national reduction in the expenditure on benefits, employers must have a system in place that co-ordinates these activities (Watson et al., 1990; Shrey, 1995; NOHSC, 1995). The foundation of an effective disability management policy must ultimately come from the employer, however in order for the employer to build on this there must be a comprehensive framework upon which they can draw. The initiatives that are being set forth by the government will ideally go a long way to giving employers a comprehensive framework which will ensure that the continuity in services and provision of the key elements are available (Beaumont, 2003).

Research into the delivery of disability management programmes has shown that although many companies have put disability policies into place, they fall short of meeting the employees' needs for providing rehabilitation services and the provision of workplace adjustments (Dibben et al., 2001; Smith, A., 2002; Kenny, 1996).

The aspect of disability management that is central to this thesis is vocational rehabilitation, Mital & Karwowski (1988, pg. 4) explain this as: *'Vocational rehabilitation aims at evaluation of the disabled person's residual capabilities for work (vocational assessment) and accommodating these capacities through training, application of technical aids, job modification, and selection and placement*". Many sources (e.g. Kearns, 1998; Granger, 1984; Paton, 2003; Purdon, 2006) have made recommendations on what features should be included in an effective vocational rehabilitation programme, commonly they include:

1. Assessment of the person's capabilities.
2. Identification of work related tasks.
3. Determining the potential problems with a specific workplace.
4. Identification of solutions, rehabilitation or training needs.
5. Finding the right agency to meet these needs.
6. Getting funding to support any additional needs.

Invariably these components of the overall process will be taken in stages and will depend on the individual needs of the employee. A more precise overview of the specific interventions that may arise in the vocational rehabilitation process have been summarised by Mital & Karwowski (1988, pg. 101) as presented in Figure 2.1.

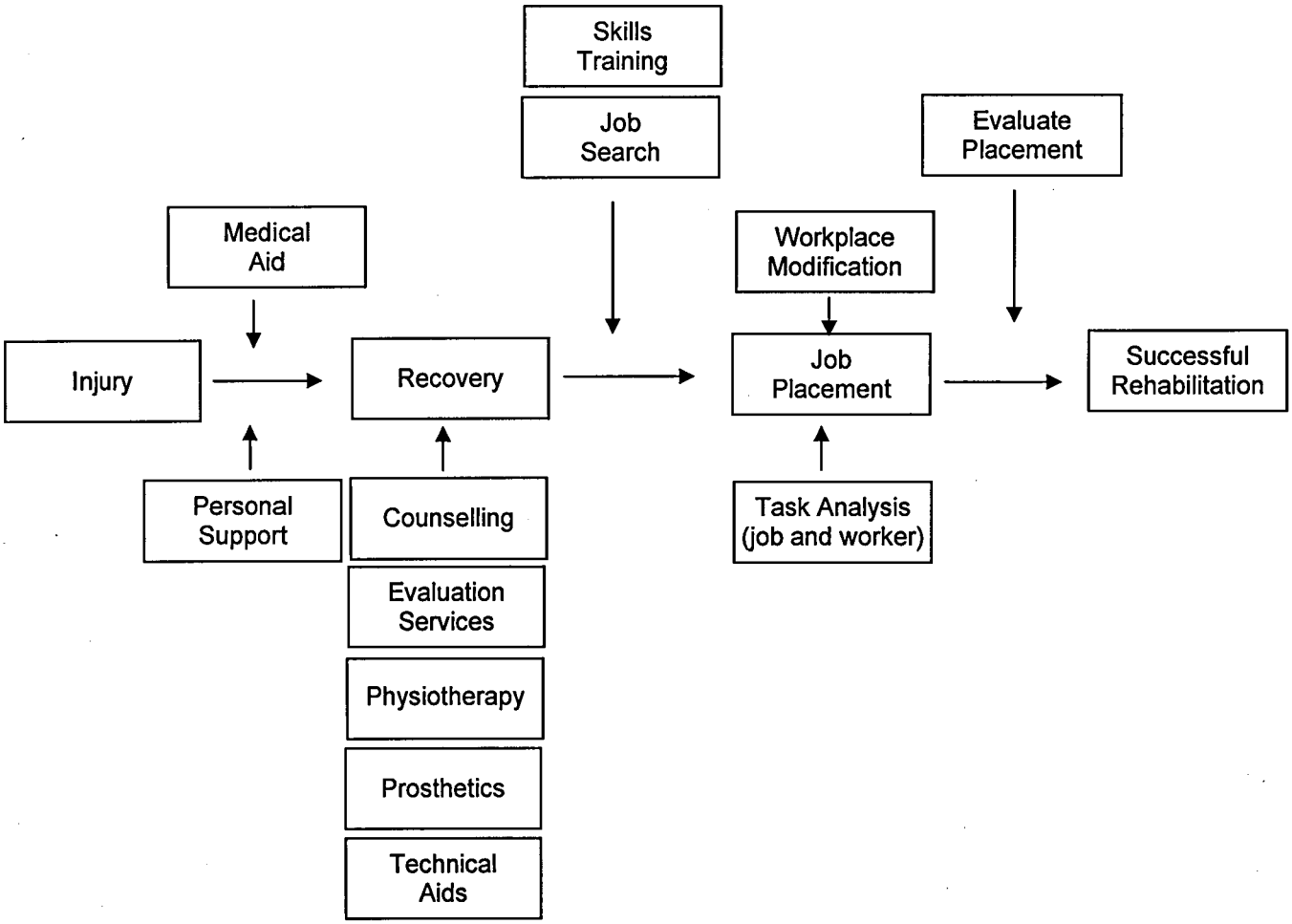

Figure 2.1: The Rehabilitation Process

This model shows how and when all of the interventions associated with the various stakeholder groups fit into the return to work process. The interventions specific to the tool being designed for this thesis start with the Recovery stages in 'Evaluation Services' and 'Technical Aids', then the Job Placement stage with 'Workplace Modification' and 'Task Analysis'. A comprehensive list of details on what should be included in these specific interventions is supplied by Shrey (1995, pg. 37), with the aim of giving guidance to employers on how to comply with the Americans with

Disabilities Act, however this is also relevant to UK employers. These include the following:

- *'A statement that clearly defines the employee's problem performance criteria, medical diagnosis, degree of impairment, medical prognosis, worker physical capacities, and projected work-return date.*
- *A statement of physical demands of the worker's job, resulting from the job analysis and ergonomics assessment.*
- *Identification of differences between the worker's job demands and the worker's physical capacity to perform specific job tasks.*
- *Identification of the range of options available to the impaired worker (e.g. physical restoration, treatment, job site accommodation, transitional work assignment, outplacement services, vocational rehabilitation and retraining) and documented cost for each option.*
- *A ranking of each recommendation with respect to its respective potential for success.*
- *Identification of resources available to implement work return, worker retention, rehabilitation and treatment options.*
- *Description of specific action steps required to implement the recommendations.*
- *Description of follow-up and evaluation procedures'.*

This set of guidelines is fundamental for the development of any tool designed to support people with disabilities in the return to work process. By consolidating this information into one tool it would have the potential to empower and educate the user, thus enabling them to integrate a work solution with less dependence on outside organizations. This could increase employers' awareness and acceptance of people with disabilities, decrease disruption to the workplace by involving the stakeholders and speed up integration for the employee. It could also provide a standardised way of evaluating an individual's needs without prejudice and offer employers a tool that could help them determine if the required workplace solutions could be considered reasonable under the DDA. Similar guidelines have been published by other authors, indicating that there is consistency in what measures are necessary to facilitate the return to work process (Innes & Straker, 1998; Galvin & Scherer, 1996; Feuerstein et al., 1997; Purdon et al., 2006).

The conclusion of studies that have examined the outcomes of vocational rehabilitation programmes have varied, some having shown that by integrating these 'best practice' procedures, the employers benefit from a

decrease in absence and illness related costs (Cunningham & James, 2000; ILO, 2002). However, other studies where unable to establish if these programmes affected the success of return to work outcomes (Nice & Thornton, 2004; Purdon et al., 2006).

Despite the vast amount of literature available on how vocational rehabilitation services should be delivered, the reality of the system has come under criticism for being complicated and badly managed, resulting in a greater number of people with disabilities remaining unemployed than is necessary (Beaumont, 2003; Booth et al., 2007; Smith, A., 2002). The main recommendation for rectifying this situation is to engage employers in the return to work process by working with employees with disabilities to develop long term general strategies and individual rehabilitation plans (Smith, A., 2002; Kearns, 1998; Seymour & Grove, 2005).

Vocational assessments

In the workplace there are generally two phases to the vocational rehabilitation process, assessment and accommodation. The assessment process is concerned with gaining an accurate representation of the individual's capabilities and limitations, as they relate to work related tasks, and the tasks required for the job (Kettle & Massie, 1989; Galvin & Scherer, 1996). It is of paramount importance that this part of the process be systematic and carried out with the employee being fully involved as their needs are completely individual and must be determined directly from them (Watson et al., 1990; Feuerstein et al., 1997; Galvin & Scherer, 1996). There are a number of functional capacity evaluations available that are currently used by employers to determine return to work potential or for insurance reimbursement. These evaluations are conducted by healthcare professionals and involve a number of aspects including patient history, medical records, physical testing and subjective questionnaires. The difficulty with these evaluations is the specialised staff required for the assessments, the cost and time required for completion as well as the high variability in test composition and results (King et al., 2001).

On a broader scale, the International Classification of Functioning, Disability and Health (ICF) was introduced by the World Health Organisation in 2001 as a universal method for the measurement of functioning regardless of the reason and to *'provide a standard language and framework for the description of health and health-related states'* (WHO, 2002, pg. 2). The basis of this classification system is a combination of the social model, i.e. how the environment and society causes barriers for people with a disability, and the medical model which views health conditions as an aspect of the person and requires medical treatment or intervention. This has created a *'biopsychosocial model'* which addresses both aspects to give *'a coherent view of different perspectives of health: biological, individual and social'* (WHO, 2002; pg. 9). This model, which is the basis for the ICF, is presented in Figure 2.2 (WHO, 2002; pg. 9).

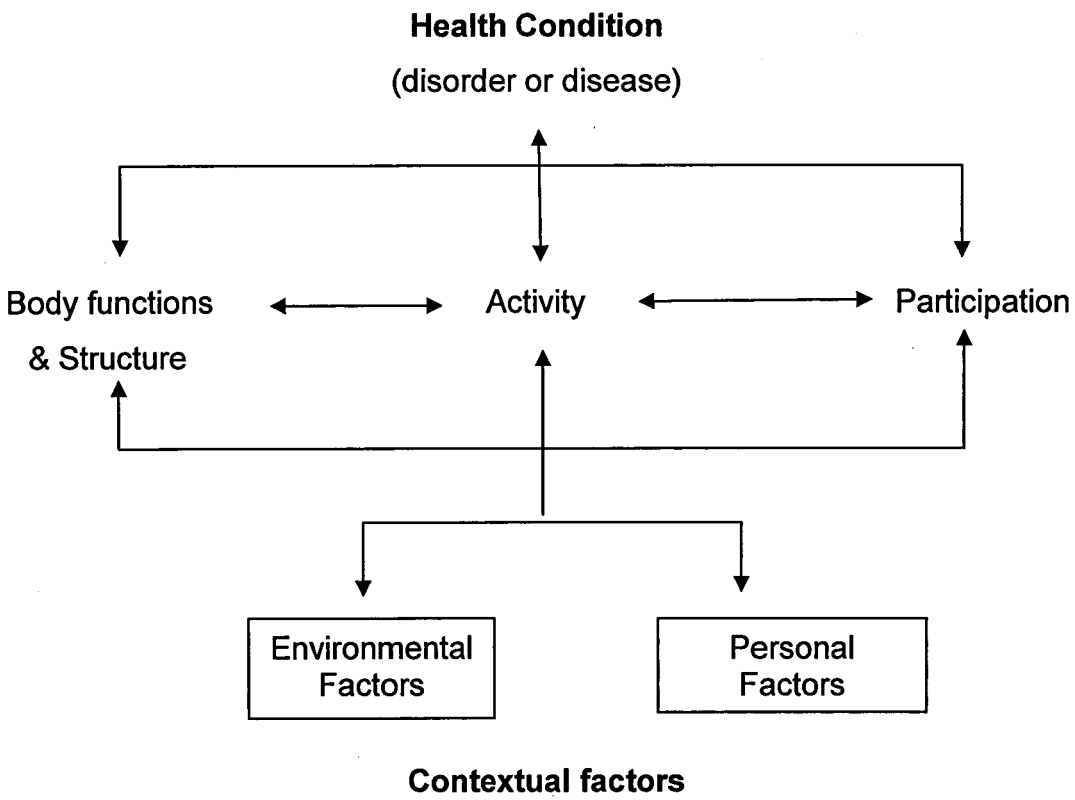

Figure 2.2: ICF model of disability

This model has made the connection between health conditions and contextual factors to identify human functioning on three levels: *'the body or body part, the whole person, and the person in a social context'* (WHO, pg. 10). Although the ICF addresses the need for a standardised method of

communication relating to health conditions it does not concentrate on work related tasks in any depth, leaving this aspect of functionality unaccounted for.

Within vocational rehabilitation this type of information has frequently come from within the discipline of ergonomics (Watson et al., 1990; Mital & Karwowski, 1988; Nice & Thornton, 2004). Feuerstein (1997, pg. 149) specifically addresses the need for ergonomic input in relation to the identification of work related limitations experienced by people with disabilities in the following statement:

> *'Unfortunately, existing classifications of work disabilities have a major disadvantage: they do not address specific human characteristics and parameters as they are relevant to work environments. For example, it is obvious that differently classified impairments could lead to similar work limitations. Thus, both advanced multiple sclerosis and traumatic vision loss, for example, will lead to serious vision-related work limitations. In many ways, ergonomic adaptations that need to be made in the workplace and the work procedures of both categories of people will be similar. From an ergonomics perspective, along with information on specific impairments, it would be even more important to collect data on specific work-related functional limitations, such as reach, grasp and lift. Often, even more detailed data are necessary, for example, specific movements, exact sound frequency limitations and dimensions of parts of the body.'*

The AbilityMatch system has been designed to collect this type of information on work limitations directly from the individual, thus giving a comprehensive picture of what their capabilities are and the tasks required for a job.

AbilityMatch as a Vocational Assessment

Once the computerised version of the AbilityMatch assessment system was completed, research was conducted to evaluate the system and determine if it was effective in meeting the needs of users (Haines et al., 2003). The initial investigations found that users where satisfied with the system's ability to identify where an individual with a disability or health condition would encounter a mismatch between an individual's capabilities and the requirements of a job. However, study participants indicated that to increase the effectiveness of the system a "solutions database" should be

incorporated that would appear when a mismatch is identified. Based on this feedback a feasibility study on creating such a database was conducted and found this to be achievable (Geddes, 2002). From this study it was concluded that the most effective way to build this database would be by conducting a significant number of assessments using the AbilityMatch system to determine the patterns of data the assessments would generate and determine how these could be used to produce a set of rules to guide the user to a particular solution depending on the individual's circumstances. Additionally, any data that were collected on solutions that the individual was already using could be accumulated as content of the 'solutions database'. The reasoning behind this approach was that the individuals who were experiencing the disability would be the best source of accurate data on what adjustments work, therefore realistic recommendations could be made on what information should be presented to the user in the database.

In the last four years the AbilityMatch system has been introduced to several employment intermediaries and vocational rehabilitation professionals (private and government) for conducting capability assessments with their clients. Although the system was introduced to the market several years ago the developers continue to evaluate its effectiveness through pilot studies and have produced several updated versions of the software based on the feedback from the users (Hitchcock et al., 2007). The most recent version is an on-line format and is being piloted by DWP occupational psychologists (personal communication). Overall the response has been positive, with users stating that the system has been effective for identifying work related tasks that may pose an obstacle for clients, gathering background information on the clients and identifying work solutions for problematic tasks (Flynn, 2007; Birkin, et al. 2004; Wong, 2006).

Work solutions

The term 'work solutions' was adopted by the AbilityMatch developers to refer broadly to 'reasonable adjustments' or 'reasonable accommodations' without giving a narrow or legal connotation to the concept. The term 'work solutions' and its impact on people with disabilities in relation to employment was recently described by Jackson & Coates (2007, pg 105) as follows:

'work solutions increase people with disabilities' belief in their ability to cope with job tasks ...thinking has progressed to the point that they (occupational psychologists) have identified that in a number of circumstances there may be a gap between potential work goals and people's capacity to carry out job tasks. The kinds of aids, adaptations, accommodations, etc. available to meet these gaps have been described as 'work solutions'. Such work solutions have the potential to alter people's beliefs about their capacities in work, enabling them to think more positively about future employment situations, increase work performance, and even perhaps increase general well-being.

Within rehabilitation the purpose of introducing work solutions is to increase the abilities of employees with disabilities, or to compensate for functional limitations, thus enabling them to continue working (Swain, 1993; Secker et al., 2003; Mital & Karwowski, 1988). The use of ergonomics for developing work solutions, e.g. the adaptation of work environments and job related tasks, has been well documented in the literature and shown to be valuable for reducing worker injury and in the return to work process (Troup & Rauhala, 1987; Buckle and Stubbs, 1989; McSweeney et al., 2002; Robertson and O'Neill, 2003).

As reviewed in section 2.1.2 the government programme Access to Work provides 'reasonable adjustments' for people with disabilities, however there are a number of constraints on this scheme which may prevent people from accessing this support. Other countries have similar programmes, e.g. Canada has ergonomics teams within Workers Compensation, Australia has Disability Access Coordinators within The Department of Families, Housing, Community Services and Indigenous Affairs, and the United States has a service called the USDA/CAP point which allows employers to search an assistive technology website then request a workplace accommodation on-line. The Job Accommodation Network (JAN, 1983) is a well established on-line database of 'reasonable accommodations' for people with disabilities based in the United States. However, as with other American sources of information on work solutions (e.g. SOAR, CAP, ABLEDATA) a large percentage of information may be universal (e.g. advice on assistive technology, aids, adaptive equipment or furniture, changes in working practice, alterations to premises etc.) while other aspects are not relevant to the user in the UK (e.g. price, availability, funding, support organisations,

etc.). All the databases reviewed supplying information on work solutions or reasonable adjustments fall under two categories: 1) very general information on how to go about the process of introducing a work solution for an employee with a disability (e.g. guidelines or rules (Nelson & Kleiner, 2001)), or 2) very specific information on equipment, aids or assistive technology which require the user to have in-depth knowledge about what equipment or technology is needed (Cardinali & Gordon, 2003; ILO, 2002). This gap in the delivery of knowledge about work solutions and the importance of addressing it was identified by Hilton & Lewis (2007, pg. 107) in the following statement:

> *'In order to facilitate the wider acceptance and understanding of this concept of work solutions, it is likely that a new taxonomy that incorporates the full range of adaptations, adjustments, assistive technologies and work solutions needs to be developed, to more effectively explain and predict how any work solution (or solutions) may help both at the individual and the organisational level. This taxonomy should do much to enhance the effectiveness of any work solutions package in individual cases, and help the work psychologist to uncover the most effective point or points of intervention'.*

Similarly Butterfield & Ramseur (2004) have identified that a lack of documentation about the use of work solutions has lead to a duplication of effort in the identification of what is available (pg 208):

> *'Although case studies in general address many workplace issues spreading across many categories of accommodations, it is difficult to draw general conclusions as to what accommodation provisions work best for a large group of individuals because accommodations are specific to the unique combination of functional limitations of the person. Neither is there much discussion about why certain accommodations work and others do not work. The absence of a comprehensive record of barriers and accommodations has resulted in an unnecessary amount of 'reinventing the wheels' and often, the resultant accommodations are not always as responsive to the user needs as they could be. There have been few studies that have looked at the effectiveness of the accommodation in meeting a client's specific needs, and much fewer that have focused on identifying barriers and solutions in a more systematic manner to meet the needs of people with disabilities that can support the development of commercial products with broad applications.'*

These findings as well as others substantiate the need for an improved delivery method for information on work solutions and the situations in which

they are likely to be effective, thus linking the functional limitation with appropriate solutions (MacDonald-Wilson et al., 2002; Jackson et al., 2007).

As reviewed in section 2.1.3 one of the barriers to introducing work solutions for people with disabilities is the common misconception that employers have about the complexity and costs associated with the process. Several studies have examined the practices and/or beliefs of employers concerning their duty to make reasonable adjustments or accommodations for employees with disabilities (e.g. Hernandez et al., 2008; Zwerling et al., 2003; McFarlin et al., 1991). Studies that investigated the actually cost of introducing work solutions, or making 'reasonable adjustments/accommodations' found that there was no cost incurred because the adaptations were organisational, or the cost was under £500 (Needels & Schmitz, 2006; Schartz et al., 2006; Galvin & Scherer, 1996).

Work solutions to accommodate people with disabilities in the workplace fall into three general categories (Hilton & Lewis, 2007; Paton, 2003), these include:

1. Organisational – These types of changes mainly involve flexible work schedules, reallocation of tasks or assistance from co-workers. Solutions of this type represent the highest percentage of all adjustments made for people with disabilities and have the lowest (usually zero) cost attached (Schartz et al, 2006).
2. Use of aids, equipment, and assistive technology – The second most common workplace solutions to be used involve the addition of specialist items that can assist the employee in overcoming some functional limitation. Examples of this are: voice recognition software for people with limited ability to type or spell, a specially designed chair for people with musculoskeletal impairments or using a grabber to retrieve items out of reach for people will limited mobility. Although these types of solutions have proven effective in the majority of cases where they are used, some studies have shown that if users are not properly trained on how to use some items they may have limited value (De Jonge & Rodger, 2006; Swain, 1993).

3. Change to premises – This category has been shown to be the least common and most expensive type of solution needed by employees. Changes such as the addition of ramps, automatic doors or elevators are examples in this category and are generally associated with physical disabilities affecting mobility (Zwerling et al., 2003).

2.2 Knowledge management

Several of the studies discussed in the literature review have shown that the need for improved delivery of information about disabilities and the impact on employment is substantiated (Swain, 1993; Feuerstein, 1997; Hilton & Lewis, 2007; Butterfield & Ramseur, 2004). Over recent years the field of computerised knowledge management has received growing attention as a way to decrease the duplication of effort within an organisation or community and to improve efficiency. The general goal of effective knowledge management systems is to make valuable information readily available to the user (Boddy, et al., 2002; Compton, 2004). This can be done either externally by the organisation that is responsible for entering the content or by having the system's users record information that may be needed in the future either by themselves or other potential users. A number of factors have contributed to the increasing emphasis placed on the importance of knowledge management:

- Increases in available information sources.
- Recognition of benefits associated with global information sharing.
- Access to the technology for supporting system requirements.
- Loss of employee knowledge due to more frequent job changes.

Walsham (2001) presents a comprehensive overview of the theories that are relevant to the use of computer systems for managing knowledge. In it he looks back at the more underlying philosophy of what knowledge is and how it can be transferred. The two accepted forms of knowledge are "tacit" which can be described as what is inherent to and individual based on their own experiences and personality; the other type is "explicit" which is what people would consider common knowledge, such as the occurrence of events or the definition of words. It is suggested that the two are inextricably linked, with explicit knowledge always being influenced by tacit knowledge.

This theory is highly relevant to this research project because the general intention is to harvest the explicit knowledge of individuals that are involved in the return to work process, specifically on the subject of work solutions. However if an individual's explicit knowledge is based on their tacit knowledge, the information being collected may be incomplete. The implication of this being that if a work solution is recommended by an individual, the underlying reasoning behind it will need to be obtained as well in order for another user to fully understand why it is being recommended or in what situations it would be appropriate. This also implies that an individual will only provide information based on their own experiences. Therefore information must be obtained from several individuals or expert sources in order to obtain a complete examination of the issue and its potential solutions. This also highlights why any tool such as the one being considered cannot simply provide one right answer but should provide many suggestions and allow the user to decide whether to accept or reject the recommendation (Richards, 2003).

This approach has also been presented by Garvey & Williamson (2002) who explain that there are two types of knowledge; 'big K' and 'little K'. In the context of this research, big K refers to general information such as what the DDA encompasses, or where to find assistive technology products. Little K is the information that is based on experience and intuition, for example organisational change recommendations for people with specific disabilities. Little K is also contextual and based on the experiences of experts i.e. the people with disabilities themselves or those with a high level of training in the area. Both types of knowledge are needed to have a successful knowledge management system but the more one can harness of the little K or 'expertise' knowledge the more effective and unique it will be. However if knowledge is gained from a source that is biased it may not be the most effective; for example a person working for the NHS may rate some of their services as better than a private service; to avoid this bias both services should be represented within the knowledge management system, to allow individual users to determine their optimal solution.

Walsham (2001) also points out the importance of defining what is known as 'communities-of-practice', users within a micro-system such as a company or part of a large organisation, and 'inter-organisations' a larger system which can include many organisations or communities of organisations. He goes on to suggest that in order to build a successful computerised knowledge management system, one with which the user fully engages with, the following questions must be answered by the designer:

- What are the communities-of-practice and inter-community activities that need to be supported?
- What types of knowledge-sharing are taking place now and what should be taking place?
- How are power relations and organisational politics affecting existing knowledge-sharing activities and what approaches could be used to mitigate any negative consequences of this?
- How can information and communication technologies be used in a beneficial way to support and facilitate improved communication and knowledge sharing?

These questions will be considered in this research project in order to gain a better understanding of the system as a whole and how users will interact with it.

Boddy et al. (2002) propose that knowledge management systems help organisations capture, organise, and share knowledge from both internal and external sources. Furthermore information systems are an electronic means for managing knowledge, through databases and expert systems, which are helpful for harnessing explicit and tacit knowledge. Expert systems are designed to store and organise information supplied by those with expert knowledge so that non-expert users can access it, thus helping to overcome shortages of expertise (Harmon et al., 1988; Hollingum, 1990). For this reason computerised knowledge management systems, in particular expert systems, are frequently used in health and human resource fields for their ability to organise large quantities of specialised information. There has been several studies done that examined the use of expert systems in these fields and have found that they are valuable tools for increasing the

accuracy and efficiency of information retrieval (e.g. Royle et al., 2000; Leonardo et al., 2004; Van Schaik & Pearson, 2004). An important consideration in the design of an expert system is the involvement of the users, both those developing the system and those that will access it to ensure that the information that is represented is accurate and relevant to users with varying levels of knowledge about the subject (Eason, 1988). Without this input users have been found to be less likely to adopt the system (Lynch & Gregor, 2003), which leads to another important aspect of the design process, the user needs analysis.

2.3 User needs analysis

The potential users of the tool being designed through this thesis are those stakeholders with a vested interest in the return to work process as outlined in section 2.1.3 (Butterfoss, et al., 2001). These individuals could be from many areas such as employment advisors either within the Department for Work and Pensions or from private organisations, recruitment agencies, health professionals, human resource personnel, employers or people with disabilities. For the tool to be appropriate for such a diverse user group the design must examine the knowledge base and particular areas of interest for each. The most pragmatic approach for obtaining this type of information is by conducting a user needs analysis, which is common in the design of information systems (Robertson & Robertson; 1999; Flowers et al., 1991; Royle et al., 2000; Avison & Fitzgerald, 1999; Scandurra et al., 2008).

The principal reference in the area of user needs analysis for human computer design is the British Standards 13407 (International Standards Organisation, 1999). This document sets forth a comprehensive guide on incorporating the needs of users into the design process. The following is a summary of the main areas discussed in the standard with regards to why and how a user centred approach should be adopted when designing an interactive system for use by humans (International Standards Organisation, 1999, pg. 2 & 3):

'Reasons for applying user centred design:

a) *To make systems easier to understand and use, thus reducing training and support costs.*
b) *To improve user satisfaction and reduce discomfort and stress.*

c) *To improve the productivity of users and the operational efficiency of organisations.*
d) *To improve product quality, appeal to the users and can provide a competitive advantage.*

Principles for user centred design:
a) *Requires the active involvement of users and clear understanding of the user and task requirements.*
b) *Ensures an appropriate allocation of function between the users and technology.*
c) *Involves the iteration of design solutions.*
d) *Is characterised by multi-disciplinary design.*

Activities in user centred design:
a) *Seek to understand and specify the context of use.*
b) *Expect to specify the user and organisational requirements.*
c) *Aim to produce design solutions.*
d) *Plan to evaluate designs against requirements.'*

Of particular relevance to the early stages of design, such as in this research, is the point to 'understand and specify the context of use'. The more detailed aspects of this are that the designer must consider the characteristics of intended users including their knowledge, skill, experience, education, training, etc. and to define the characteristics of different users. Additionally the tasks the users need to perform and the goals of the use of the system must be taken into account. Finally the environment in which the users are to use the system must be examined. This follows the general principles of user centred design presented in the literature (e.g. Preece et al., 1994; Gould & Lewis, 1985, Robertson & Robertson; 1999). Another key reference that was used in the data collection and guided the outcomes of the research was a System Specification Template called Volere which was produced by Robertson & Roberson (2007).

2.4 Contribution to knowledge

A vast amount of research exists on the issue of disability and employment, however very little has focused on what the information needs are of the stakeholders involved in the return to work process and more importantly how to meet these needs. The purpose of this research was to fill this gap in the existing literature as well as providing a user centred approach to future solutions for increasing the dissemination of work related information for people with disabilities.

Chapter 3: Study 1 - Survey of working age disabled people

3.1 Introduction

The current return to work process for people with disabilities is well established in the literature (e.g. Dibben et al., 2001; Shrey, 1995; James et al., 2006; Beaumont, 2003). It encompasses a number of different stakeholder groups those being; health care providers, government, employers, voluntary organisations and the people with disabilities themselves (Young et al., 2005; Commission of the European Communities, 2000). One of the main issues with this process has been a lack of information supplied to the various stakeholder groups that will help them support the needs of people with disabilities in employment (Smith, A., 2002; Thompson, 2005; Prime Minister's Strategy Unit, 2005; Purdon, 2006). It was determined that there is a need for increased dissemination of information amongst the stakeholders in order to facilitate the return to work or retention of work process (Nice & Thornton, 2004; Smith, A., 2002; Hutton, 2006).

The overall purpose of this research was to investigate the development of a tool that could provide information on disability and employment. The scope of this study was to explore the information needs of people with disabilities in relation to employment, in order to develop a user centred tool to meet these needs. Interviews were conducted to explore the participants' experiences and level of knowledge on disability and employment related support. The interview data were used to help determine whether greater knowledge on disability related topics is needed to gain or retain employment, and for the researcher to gain insight into what topics are pertinent to people with disabilities. They would also serve as a starting point for gathering information about the work implications of specific disabilities, as well as solutions that have been successful.

3.2 Aims

The key aims of the interviews were:

1. To identify key stakeholders and their roles in the employment process for people with disabilities.
2. To establish what information the participants received in the past that had some influence on their staying in work or returning to work. Also to determine what specific types of adjustments the participants had made at work.
3. To establish whether improved delivery of information on disability and employment related topics was required by the participants.
4. To substantiate the need for the tool and determine what the tool should contain through aims 1-3.

3.3 Rationale for surveying working age people with disabilities

The main purpose of this study was to develop a tool that would bring together and subsequently deliver information about disability and employment related topics, to working age people with disabilities. This places the stakeholder group of employees (working age people with disabilities) as the main or end user. Therefore it was considered of paramount importance that the end users guide the design process. This was to ensure that any recommendations or guidelines made on the final design of the tool would be relevant and useful to the end users (Butterfoss, et al., 2001).

As was stated in the human centred design standard (International Standards Organisation, 13407:1999) an important aspect of this process is 'The active involvement of users and a clear understanding of user and task requirements' (pg 5). Therefore it was important to involve the end users as study participants in order to gain insight into what information should be conveyed about disability and employment. This was also to determine how participants obtained the information they did have on disability and employment and the challenges they faced with acquiring it, this would ensure that new strategies for providing the information were well informed (Stanton et al, 2005). This approach is corroborated in the paper by the

Commission of the European Communities (2000, pg 20) which states *'Life experience provides people with disabilities with the skills and understanding to quickly identify the policies and practices which affect or prevent them from accessing services and facilities and to devise possible solutions to address those barriers'.*

It is important to define at this point the role of working age people with disabilities as to how they fit in as users of the tool. In this study the participants, people with disabilities, are considered the end user. The reason for this differentiation is that although they are considered the main stakeholders in the return to work process they are not the targeted user for the tool. The reason for this is that the tool is designed to be used by trained professionals who are assisting the person with a disability, not as a self assessment tool. Therefore people with a disability are needed for their input as they are the recipients of the information and they are also in the best position to inform the research on who the intended users should be.

3.4 Methods

This study used the Grounded Theory approach, this allows the researcher to take an inductive and evolving approach to the cycle of data collection and analysis, which can alternate several times before any deductions or theory of any kind can emerge (Strauss & Corbin, 1998). Data were collected through Semi-Structured Interviews which are commonly used in grounded theory studies (Duckett, 2000; Thornton et al., 2001; Chapin & Kewman, 2001), and in the initial stages of a new product or service development (Stanton et al, 2005).

Two types of interview questions were used: closed and open ended. Closed questions were used to obtain some background information, such as age and education level. The main section of the interview was designed to be open ended in order to obtain the most thorough information possible from the participants (Stanton et al, 2005; Robson, 2002) and is frequently used for life history interviews (Silverman, 2006). Probing questions were also used to elicit more in-depth information about points that participants mentioned that were relevant to the study but they did not elaborate on.

The following table outlines the advantages and disadvantages of the interview method, adapted from Stanton et al, 2005, Butterfoss, et al 2000, and Robson, 2002.

Table 3.1: Advantages and Disadvantages of Semi-Structured Interviews

Advantages	Disadvantages
Interviews can be used to gather qualitative data regarding a wide range of subjects.	The reliability and validity of the method is difficult because of its lack of standardisation.
Can gather quantitative data for statistical analysis	Interviews are susceptible to both interviewer and interviewee bias.
Interviews are a flexible and adaptable way of gathering large amounts of data.	Conducting an interview correctly is quite difficult and requires skill and experience on behalf of the interviewer.
Potentially the data gathered is very rich and compelling as respondents are able to use their own words and express themselves freely.	The quality of the data gathered is based entirely upon the skill of the interviewer and the quality of the interviewee.
The interviewer has full control over the interview and can direct the interview in any way by adapting the sequence of question or the use of probing questions	The interview is a time consuming method when the following are factored in; time taken to design the questions, recruit participants, conduct the interview, transcribe the data from tapes or notes, and analyse the data.
Can obtain data from people over large demographic areas but using the telephone	
Can obtain information from those who have difficulty reading, seeing, or understanding English	

Adapted from Stanton et al, 2005, Butterfoss, et al 2000, and Robson, 2002.

Interviews were chosen as the method of data collection for this study because they can be easily and cost-effectively conducted over the telephone. This allows participants that are geographically dispersed or have difficulty with mobility to be included but still allows the researcher the ability to clarify questions or use probing questions.

The three other main methods for collecting qualitative data were considered but for various reasons were rejected, each of these is discussed here. Questionnaires would not have allowed the researcher to gather data that was as in-depth as was required for examining the participants' experiences and information requirements. Additionally, due to the specific nature of the study questionnaires were deemed inappropriate to complete, as it was predicted that several of the participants would have impairments that could prevent them from taking part in the study if reading or writing was required. As can be seen from Figure 3.2 there were participants with dyslexia, visual impairments, cognitive impairments, and limited use of their dominant hand; these disabilities most likely would have resulted in the individuals being excluded from a study that was paper or electronically based. Focus groups were also found to be unsuitable for data collection as this method is appropriate for groups of participants that have similar backgrounds (Stanton et al., 2005) and in this study participants with a range of backgrounds were being sought, additionally this method is not practical when participants are geographically dispersed or have mobility issues. The final method, observation, is used for gathering data on participants actions and behaviours (Robson, 2002), as this study sought to examine the participants past experiences this method was not appropriate.

The researcher made a conscious effort to avoid using leading or biased questions and purposely did not brief the participants about the specific reasons for conducting the study until the interview was over. This was done to avoid the potential for participants altering their answers in favour of the research. Interview methods have been commonly criticised for their lack of accuracy and reliability (Patton, 2002). However this was considered a necessary trade off, in light of the depth of the data being sought. To increase the reliability of the data a large enough sample was sought to ensure that the themes uncovered through analysis were 'saturated' as recommended by Robson (2002), this concept will be described in greater detail in Section 3.5.

Several of the studies discussed in Chapter 2 have employed semi-structured interviews, specifically where the researchers were interested in

obtaining in-depth information on specific topics related the experiences of certain groups of people (e.g. Kenny., 1995; James et al., 2006; Aston et al. 2005; Mowlam & Lewis 2005). This method is especially evident in many of the evaluation reports on disability and employment schemes developed by the Department for Work and Pensions (e.g. Talbot et al., 2005; Purdon., 2006; Corden et al., 2005; Knight et al., 2005).

3.5 Sampling

A purposive sampling strategy was used in order to obtain data from a range of 'working age' people with disabilities population and to portray a broad mix of experiences. This strategy is most often used in the Grounded Theory approach as it allows the researcher to draw an initial sample possessing the attributes relevant to the study and then broaden the sample according to the initial findings (Robson, 2002).

To increase the reliability of the data obtained, and therefore the 'generalisability' of the results, the data must reach saturation (Patton, 2002; Strauss & Corbin, 1998). This concept can not be dictated by a specific number as in statistical analysis but is achieved by interviewing participants until little or no new data are obtained (Denzin & Lincoln, 2005). In order to obtain participants with a range of employment histories, all of whom had a disability, recruitment was carried out by both targeting specific organisations that worked with people with disabilities, and through mass media advertising. This was done so that the sample would include participants that; had not worked since the onset of their disability, had worked since the onset of their disability but were not currently working, and were currently working.

The first group recruited for this study were working age people with disabilities from a national government employment support programme specifically for people with disabilities, entitled New Deal for Disabled People (NDDP). This programme was established at the same site as the Matching Ability With Jobs (MAWJ) programme. The project manager for this programme was approached and asked if they would allow some of their beneficiaries to be contacted about participating in the study. They

agreed to assist the researcher with the project but insisted they should initiate contact with potential participants for reasons of data protection. Seven eligible participants were informed about the study and asked if they would participate. Two were not able to attend the set interview dates, so five individuals were interviewed, all of whom were unemployed and had been since the onset of their disability. These interviews were conducted over two days, three weeks apart and were arranged to coincide with the participants' regular meetings with their NDDP advisor. Interviews were conducted face-to-face in a meeting room at the NDDP programmes site in Portsmouth during March of 2006, each participant attended once (see Appendix B & C for participant information sheets and consent forms).

The next group were recruited through an employment support programme in Leicester called Yes2Work, which was also specifically targeted at people with disabilities. The project manager was asked for contact information on former beneficiaries of the programme that were now working. Again direct contact with the participants was not initially possible due to data protection so the project manager was given a participant information sheet to distribute to clients, who were then asked if they would participate in the study. The project manager supplied a contact list of 10 individuals that were willing to participate in the study. Three of these people could not be contacted at the time of the study and two were not able to schedule interview times during the data collection period. Since the participants were no longer on the Yes2Work programme they did not attend regular meetings at the site, this meant face-to-face interviews could not be arranged. Telephone interviews were arranged with participants and in total five participants were interviewed over the period of a week in May 2006.

All five participants disclosed that they had gained employment through the Yes2Work programme, but were no longer working at the time of the interview. Therefore this group of participants meet the sampling criteria for the unemployed group.

Once the data from the first two groups was analysed it was found that the majority of the responses were repeated and therefore further participants

that were unemployed were not needed as the data had reached a satisfactory level of saturation. To recruit a sample of employed participants with diverse backgrounds and geographic distribution, a press release was issued to the media through several different disability related publications, both print and internet based (See Appendix A for press release). In total 31 individuals replied to the request for participants, four were not eligible because they were not currently working, two were not eligible because they were not residents of the United Kingdom, and two were unreachable at their scheduled interview times (or rescheduled times). In total 23 participants were interviewed, only one participant was located close to the researcher and was able to be interviewed face-to-face, the other 22 participants were interviewed by telephone during July and September of 2006. The following table summarises the details of the sample that was used for this study.

Table 3.2: Sampling details

Source of participant	Number of participants	Number employed	Number unemployed	Method of interview
NDDP	5	0	5	Face-to-face
Y2W	5	0	5	Telephone
Press release	23	23	0	1 face-to-face 22 telephone

The combination of these three groups resulted in the participants representing a well distributed sample based on a number of factors including; age, gender, type of impairment, length of time since the onset of the disability, employment history, and educational background.

3.6 Piloting

This first set of interviews with participants from the New Deal for Disabled People programme served as a pilot for the interview questions. The piloting did not result in any changes to the questions, so the data from these interviews were included in the main study. The pilot interviews did however identify an issue with the data collection method. It was originally envisaged that all interviews would be audio taped, but only two of the five pilot participants agreed to be recorded on tape. Two of those who refused,

stated that they had legal cases pending against their employers and did not feel comfortable about having personal information about their situation available on tape. The third stated that they didn't like to be taped because it made them 'feel paranoid'. To accommodate this, notes were taken from all five of the interviews and then transcriptions were completed for the two recorded interviews. To validate the data the transcriptions and notes taken during the same interview were compared to determine whether the notes were sufficient to collect the data needed for the study. Only one point from each transcription was found to be missing in the notes. Neither of these points were deemed relevant to the study. It was therefore established that note taking would provide sufficient data relevant for the study, without putting unwanted pressure on the participants.

3.7 Design of interview questions

The questions were divided into five sections with each part concentrating on a different aspect of the study. A list of the final interview questions is presented in Appendix D; it is important to note that all groups were asked the same questions with one exception, the first question in section three which was regarding current employment and was therefore not asked of the unemployed participants.

3.7.1 Personal details and background

In section one of the interview participants were asked to provide information about their age, employment history, education obtained and details of their disability including the onset. These data were collected to ensure that a broad range of participants were included in the study, thus ensuring that the sample was indicative of the population being studied. The results section shows how the sample compared to the population.

3.7.2 History of interventions

Section two of the interviews concentrated on gaining information about the professionals whom the participants had come in contact with since the onset of their disability, and the information that these professionals had supplied, especially concerning disability and employment issues. The

participants were asked to give a chronological account of their experiences, with the researcher prompting for more details throughout the interview.

The first objective was to identify the main stakeholders in the process of obtaining or retaining employment whilst having a disability. This was to establish two points; who the potential users of a 'disability and employment information tool' would be, and if there was currently an adequate amount of information about disability and employment related topics being passed on to the participants by the stakeholders.

Another objective of examining participants' case histories was to gather as much data as possible regarding the types of information (i.e. guidance or advice) they encountered throughout the employment process, and perhaps more importantly, how valuable this information was to them. These data would then be used as to guide the content of the tool.

3.7.3 Attitudes held by working age people with disabilities concerning the employment process

The third section of the interview was designed to gain information about; 1) what participants considered to be instrumental in them finding work, 2) what information they found hard to obtain, and 3) what recommendations they would make to improve the situation of people with disabilities. These questions were asked to gain a better understanding of what helps and what hinders the progress of people with disabilities. It was anticipated that it could help to determine where a lack of information about disability related subjects was a common theme that evoked a negative reaction from the participants and conversely if the presence of this information had a positive impact on them. It is important to note that the first question (concerning what had been instrumental in their gaining employment) was not asked for the participants that had not been employed since the onset of their disability.

3.7.4 Knowledge of disability related topics

In section four of the interview the participants were asked about their knowledge or understanding of important disability related topics concerning

government legislation and support. Data collected from this line of questioning would be used to determine how effectively this information is disseminated to its target audience.

3.7.5 Use of reasonable adjustments or assistive technology

The final section, section five, was used to obtain specific information on what types of adjustments were necessary for the participants to be in employment. These data were used to help define what the content of the information delivery tool should be.

3.8 Ethical considerations

Ethical approval was granted by Loughborough University. A full application was made because some of the data being collected were considered sensitive and that the participants could be considered 'vulnerable' due to the fact that they fell into the category of 'disabled'. Since the participants being targeted for this study were either employed or looking for work, in the ethics application an argument was put forward that they would be capable of making decisions and should not be considered 'vulnerable'. Additional care was also taken when selecting the methods and how they were administered to ensure that individuals with additional needs would not be excluded. This issue did not present an obstacle for this study because the participants were adults. The full ethics application is presented in appendix E.

To gain consent the participants were ensured confidentiality and protection of their identities and that of employers who may have been discussed during the course of the interviews. Participant numbers were assigned to interview notes to ensure anonymity. These were kept separately from the contact information. All of the contact information and taped interviews were kept at a secure location.

3.9 Equipment

All of the interviews (both face-to-face and telephone) were conducted in quiet, private rooms. A hands free speaker phone was used to allow the researcher to take notes during the telephone interviews.

3.10 Interview procedure

Participants who agreed to take part in the study were contacted and full contact details were obtained. They were then sent participant information sheets and consent forms either by post or email, depending on their preference. Signed consent forms were returned either by post or fax and once they were received participants were contacted to schedule an interview time. At the scheduled times the participants were telephoned and asked if they were available to conduct the interview; if the participants agreed, the interview commenced, if not, the time was rescheduled. Participants were first asked if they had any questions or concerns about the interview, but told that the purpose of the study would be discussed after the interview in order not to bias their answers. Participants were informed that they could terminate the interview or take a break at any time if they wanted to. Questions were presented as shown in section 3.5. Detailed notes were taken during the interview. Once the interview was completed the participants were given a more detailed explanation of the project, i.e. an investigation into the development of a tool to deliver employment related information for people with disabilities. Participants were then thanked for their contribution to the study.

3.11 Data analysis

The data collected from the closed questions were analysed using quantitative methods to obtain either a percentage or frequency for each variable being measured within the sample population relating to their personal details (e.g. age, gender, education level). This was done to allow the researcher to compare various aspects of the sample population to the general population of working age people with disabilities to determine if the sample population was representative of the general population. Quantitative analysis was also performed on the question relating to the participants level of knowledge on various disability and employment related topics. The results of these analyses are presented as graphs representing the comparisons.

To analyse the qualitative data gathered from the open ended question concerning the participant's intervention history, the completed interview records were reviewed and primary codes were assigned to each of the stakeholder groups identified in the return to work process. Secondary codes were then assigned to each specific professional that participants referred to during this question. Tertiary codes were then assigned to the type of outcome that resulted from each of encounters with the professional, and tertiary codes were assigned to descriptions of these outcomes. The data were analysed to identify:

- Stakeholder groups that participants came in contact with
- All professionals that participants came in contact with
- Number of professionals seen by each participant
- At what point in the return to work process were the professionals seen
- What disability and work related information was passed on during the encounters with professionals

In addition to this main question further, more specific questions were analysed using codes to identify primary themes that emerged from the data. For the data collected from these questions as well as the main question concerning interventions, results were presented to include a percentage of the participants that indicated the common themes.

3.12 Results

The results are presented according to the sections outlined in 3.7.1 to 3.7.5 respectively. In total 33 participants were involved in this study (See table 3.2 for breakdown). Examples of interview transcripts are presented in Appendix F to illustrate the data collected through the interview process.

3.12.1 Personal details and background

In section one of the interview participants were asked a number of questions to establish if the sample had an acceptable distribution for variables such as; gender, age, type of disability, onset of disability, and education levels obtained. A frequency analysis was performed on data for each of the variables listed above and where comparison data on the general population of working age people with disabilities were available the

sample data were compared. It was important to establish these comparisons to ensure that the sample group were representative of the diversity of this group.

Gender

The gender distribution of the sample was Male = 45% (n=15), Female = 55% (n=18). Comparing this to the 2001 Labour Force Survey (LFS) (Smith & Twomey, 2002) the population of disabled people of working age in Britain was Male = 51% (n=3.5 million) and Female = 48% (n=3.3 million).

Age

Participants were asked to identify their age according to one of the following categories which correspond to those in the LFS (Smith & Twomey, 2002); 16-24, 25-34, 35-49, 50-64. The results for the age of the participants are outlined in the table below:

Table 3.3: Age and gender of participants

Age category	Total number of participants	Number of male and female participants
16-24 years	6 (18%)	M=3, F=3
25-34 years	6 (18%)	M=3, F=3
35-49 years	14 (42%)	M=6, F=8
50-64 years	7 (21%)	M=3, F=4
Total	33	M=15, F=18

Figure 3.1 compares the distribution of the age and gender of the sample participants to the overall population of 'People of working age with disabilities by age group and sex' as presented in the LFS (Smith & Twomey, 2002).

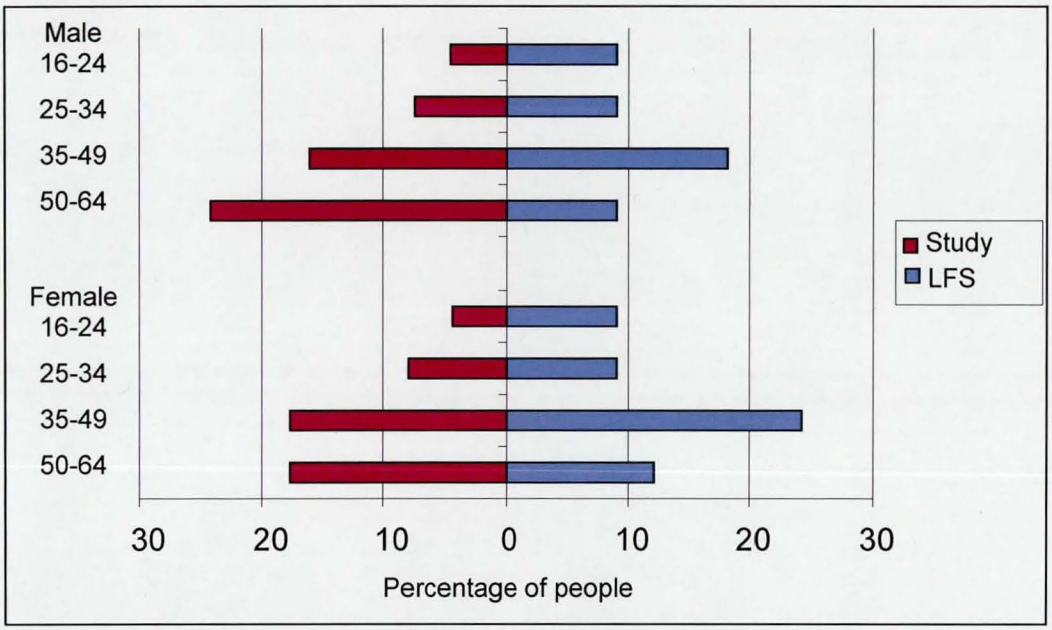

Figure 3.1: Distribution of sample compared to the disabled working age population by age group and gender

In the study sample there is a small percentage (approximately 5%) lower than the population in the youngest category for both males and females. There is about 10% less females in the study group than the population for the 35-49 year old age category, which is almost the same as the increase of females in the 50-64 year old category. For the oldest age category there appears to be a substantially higher percentage of males in this sample compared to the population.

Type of disability

Participants were asked to give a general description or medical term for their disability. Figure 3.2 outlines the type and percentage of disabilities within the sample group compared to the type and percentage of impairments within the disabled population as a whole according to the LFS (Smith & Twomey, 2002).

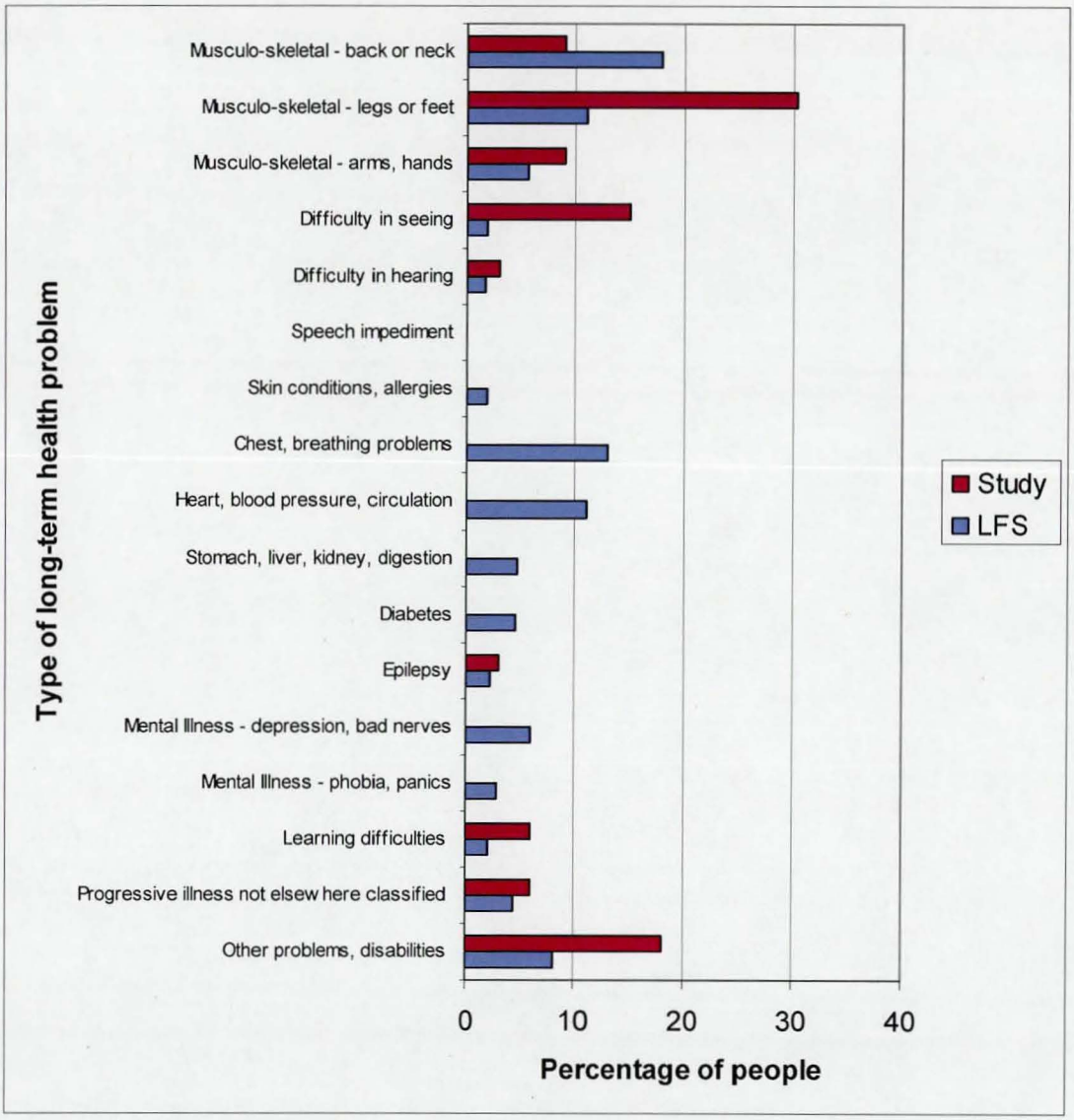

Figure 3.2: Distribution of sample compared to the disabled working age population by type of impairment

For some of the categories, such as musculoskeletal problems (arms and hands), hearing impairments and epilepsy the study sample had similar percentages to the LFS (Smith & Twomey, 2002) population. However other areas were not comparable, such as vision, various pathology affecting internal organs and issues falling into the 'other' category.

Education

Participants were asked to provide information about their educational background. These data were compared to the findings from the LFS using the same general categories, these are presented in Figure 3.3 below.

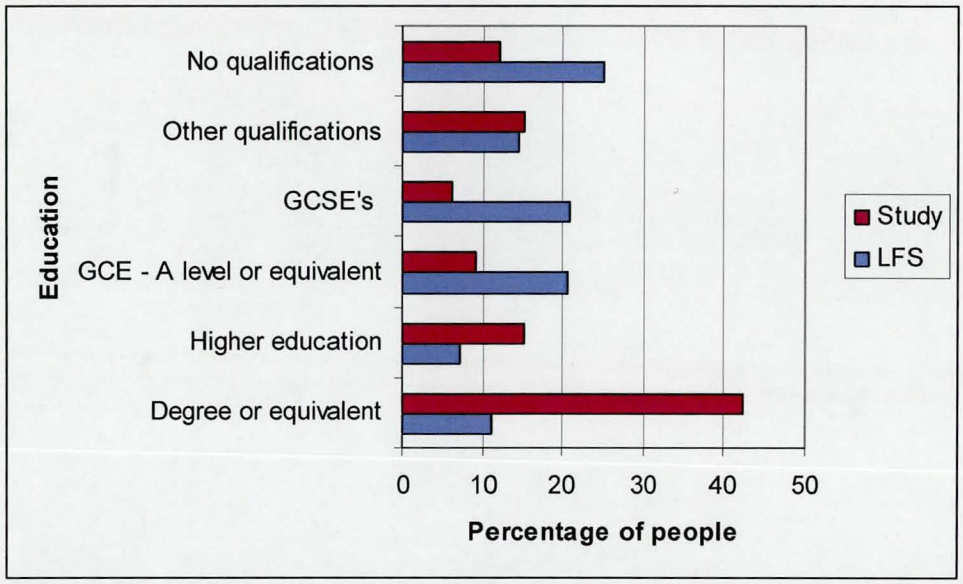

Figure 3.3: Comparison of sample to working age disabled population for education level

The results show that there was a much higher percentage of participants with a degree or equivalent in the study sample than are found in the general working age disabled population (LFS, 2001).

Onset of disability

The participants were asked at what point in their lives they first became aware that they had an impairment, Figure 3.4 shows the distribution of these data.

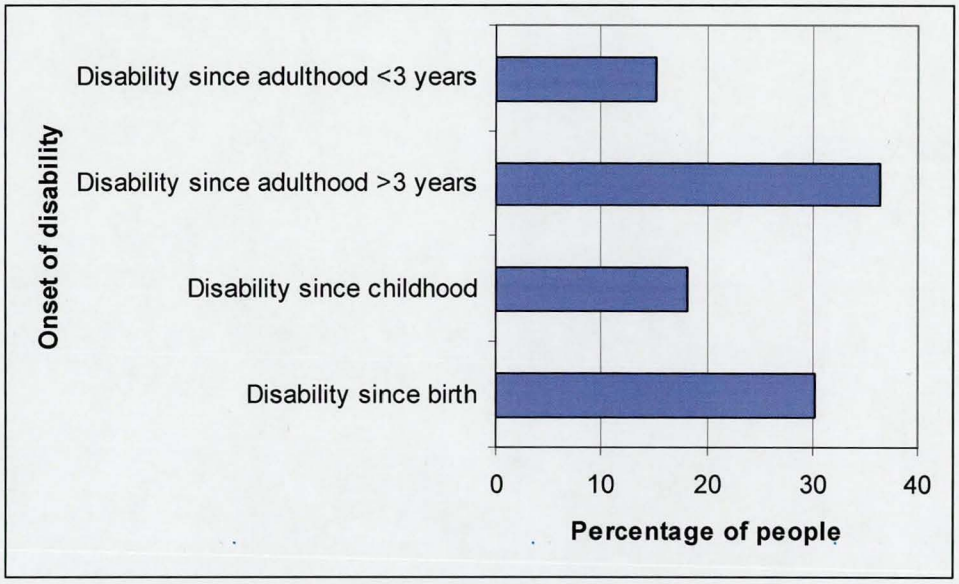

Figure 3.4: Distribution of sample by onset of disability

The results from Figure 3.4 show that the participants represented a range of time periods since the onset of disability. These data were collected to

ensure that the participants would represent a wide range of experiences based on how long they have been coping with their disability. A comparison of this sample to the disabled population could not be made, as these data could not be found in the literature for the working age disabled population.

3.12.2 History of interventions

Section two of the interview was a single question designed to elicit a chronological account of the encounters that the participants had since the onset of their disability.

Q: Can you give me a history of who you have had contact with and what has happened going back to when you first realised that you had a disability or health condition?

The data collected from this question were analysed to answer three questions; 1) who are people with disabilities most likely to have contact with (stakeholders) during the return to work process, 2) when do they typically have this contact, and 3) what are the outcomes of this contact. The following sections summarise the answers to these questions as they emerged from the data.

Professionals encountered by participants

All data were analysed and coded to identify the primary codes, which resulted in the four main stakeholder groups; health care providers, government, employers, and volunteer organisations. The secondary level of coding provided a list of all professionals within these stakeholder groups that participants had encountered as a result of their disability and/or employment. The codes were entered into an Excel spreadsheet to manage the data. In total there were 25 secondary codes identifying 25 different professionals. Additional codes were identified for professionals that participants saw during their years of education but these were excluded from this study because they were not employment related. The percentage of participants that identified the primary codes (stakeholder groups) were as follows:

- 88% of participants had contact with the stakeholder group 'health care providers'.
- 73% of participants had contact with the stakeholder group encompassing 'Government'.
- 64% of participants had contact with the stakeholder group 'employers'.
- 40% of participants had contact with the stakeholder group 'volunteer organisations'.

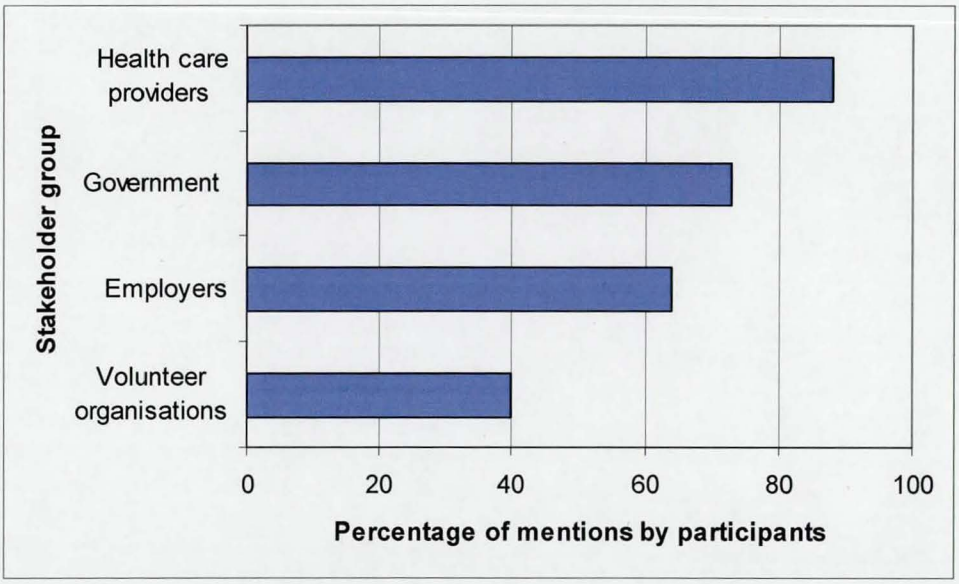

Figure 3.5: Stakeholder groups identified by participants

The data from this question shows that the vast majority of participants had contact with a professional in the health care profession, this substantiates that this group of stakeholders are the major point of contact for working age people with disabilities.

The percentage for each of the secondary codes was calculated to give the percentage of participants that cited each code. It is important to note that if a participant referred to more than one professional with the same code it was only counted as one to prevent some codes (types of professions) being falsely over represented in the data analysis. The 25 secondary codes identified along with the percentage of participants that had contact with them are presented in Figure 3.6.

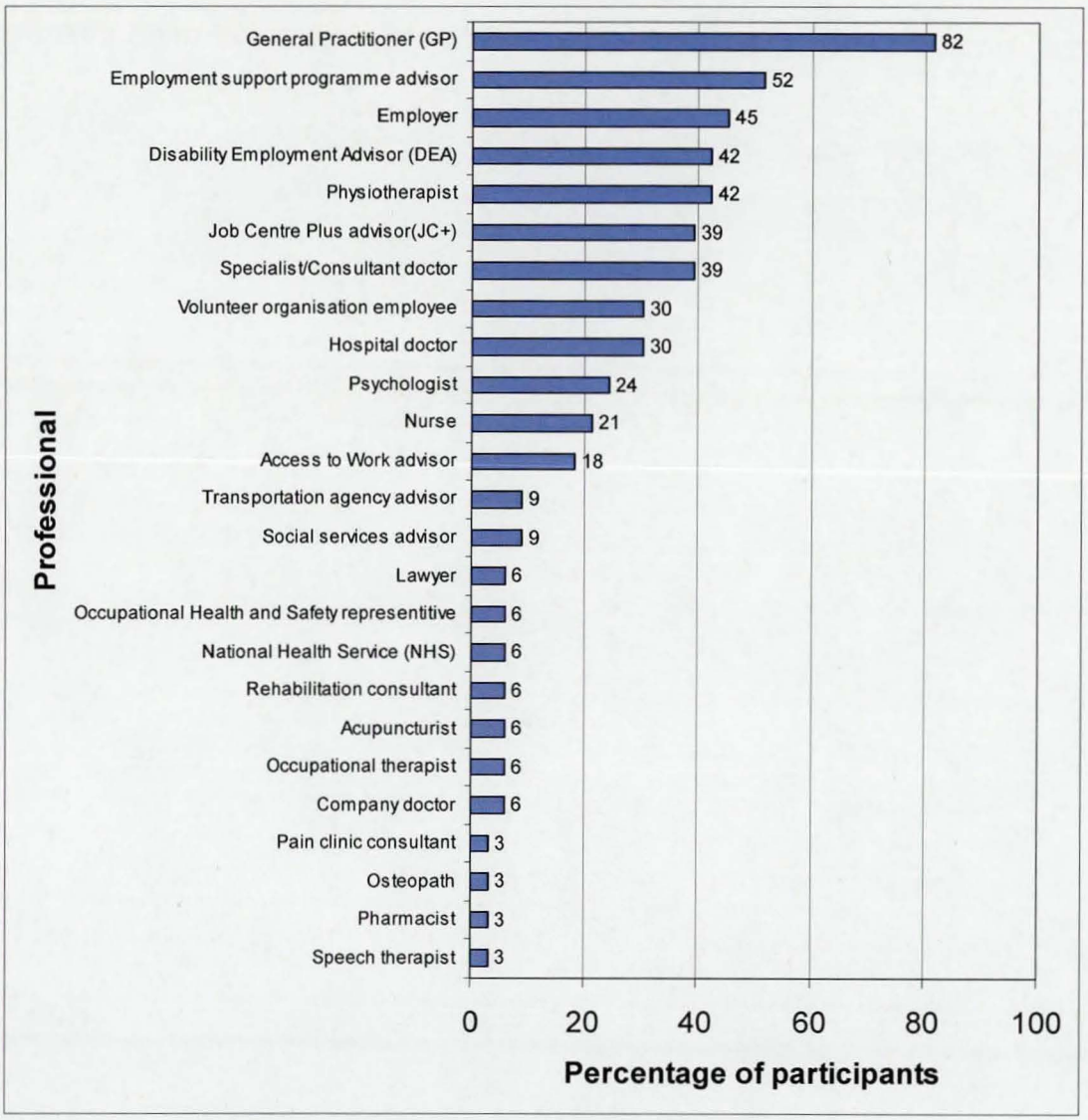

Figure 3.6: Professionals encountered by participants

As can be seen by Figure 3.6 the five professionals that the participants most frequently saw were:

1. A general practitioner
2. An employment support programme advisor
3. Their employer
4. A Disability Employment Advisor (DEA)
5. A physiotherapist

Timeline of encounters with stakeholder groups

The data were analysed to further explore the association between the participants and the stakeholder groups by developing a timeline, calculating when each of the stakeholders were seen in the return to work process. This analysis plotted each time a primary code was identified to determine the timeline trends. For participants that had their disability before they were

of working age, the timeline started from when they entered the labour market, i.e. professionals seen through the educational years were not included. In some cases the participants were unable to identify the first encounter they had as they were too young.

For most of the participants their history of intervention involved more than one disability or health condition during their working lives, therefore each condition was analysed as a separate sequence of encounter. An example of this was a participant that had neuropathy in their feet, then developed depression and later had a fractured pelvis. In the analysis this was broken down into three separate sequences, where a health care professional was the participant's first point of contact in each sequence. This resulted in a total of three encounters with a health care provider being counted under the '1st' column for just one participant. As this type of situation was common amongst the participants, the total number of encounters at each point in the sequence is greater than the total number of participants. Additionally participants had a various number of encounters within each sequence, for example some participants only saw a doctor, their boss and a government advisor in order to manage their disability or health condition. In other cases participants encountered up to 14 different professionals, this resulted in much higher numbers for the initial encounters in the sequence. Figure 3.7 presents the results of this analysis.

	Sequence of encounter													
Stakeholder group	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th
Health care provider	67	64	39	21	36	21	12	15	18	6	6	3	6	6
Government	6	27	21	24	18	24	9	21	6	9	9	9	0	0
Employer	9	3	12	9	3	3	15	6	0	0	0	0	0	0
Volunteer organisation	3	3	9	6	6	0	3	0	6	3	0	0	3	3

Figure 3.7: Timeline of encounters with professionals by percentage of participants

The analysis highlighted the following factors regarding the point of contact with the different stakeholder groups:

- The majority of the interventions with health care providers were seen in the early half of the sequence. Specifically doctors (GPs, Consultants, and hospital doctors) were contacted close to the onset of the disability, most of them being the first, second or third professional the participants contacted.
- Contact with government organisations varied but for most participants this came early to midway through the process.
- Employers were generally consulted early or midway through the process.
- Encounters with voluntary disability groups were quite consistent throughout the process.

Outcomes from encounters with professionals

The data were analysed to identify the different outcomes from the encounters with the professionals. Four distinct outcome themes were evident in the codes; 1) assessment, 2) action, 3) referral, and 4) guidance/information, these themes generated the tertiary codes. It became apparent that there was a considerable difference between encounters with doctors and other medical professionals i.e. physio or occupational therapists, nurses, etc. Therefore the stakeholder group 'health care providers' was separated into 'doctors' and 'allied medical professionals' in order to preserve the distinction between the two. A full list of codes used in this section of the study is presented below in Figure 3.8.

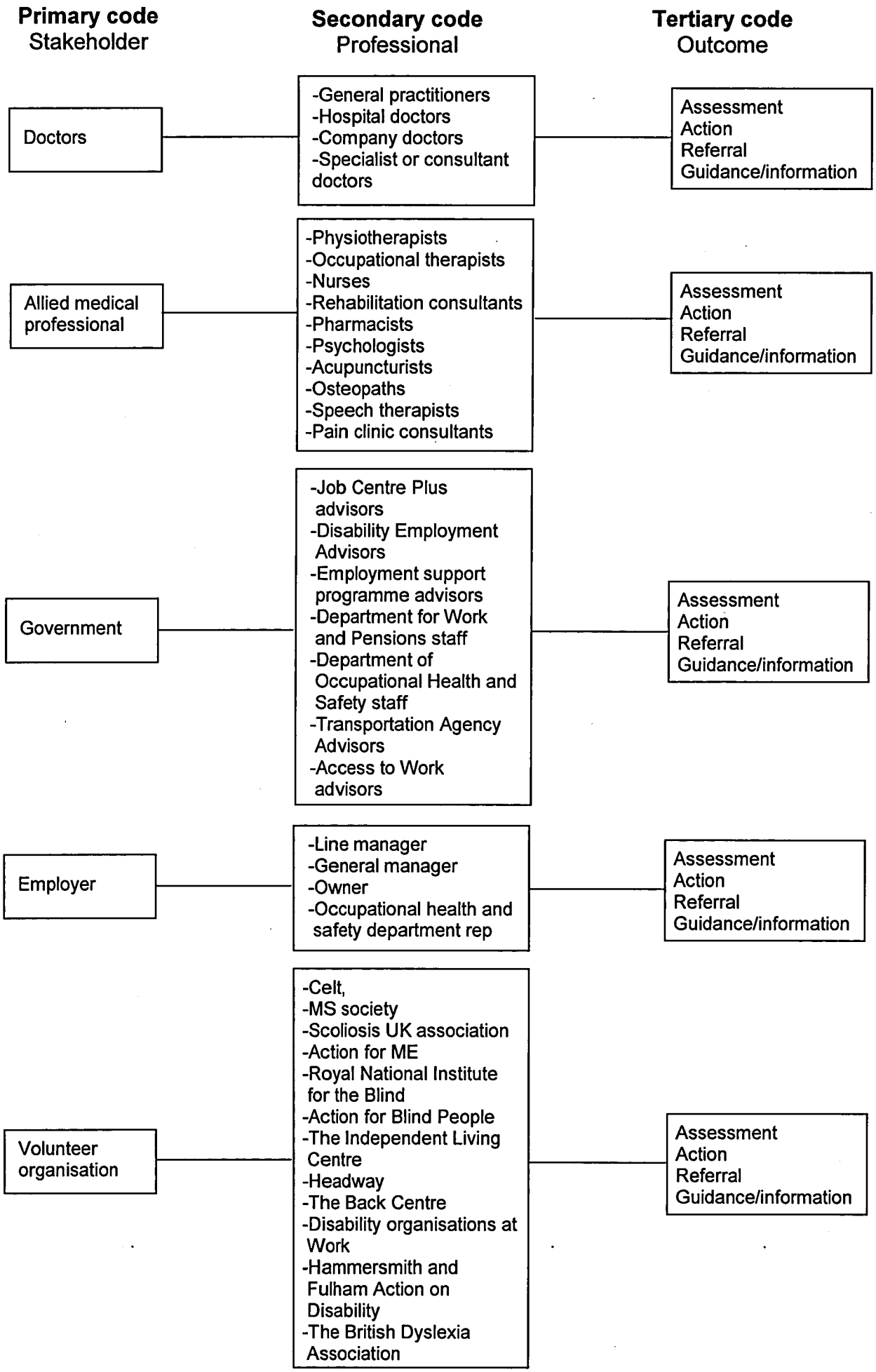

Figure 3.8: Codes used for interview analysis

The results for each of the tertiary codes are presented according to the primary code or stakeholder group in the following sections.

Doctors

This group of stakeholders was a sub-group of the 'health care professionals' and was comprised of several different types of doctors, including: general practitioners, hospital doctors, company doctors, and specialist or consultant doctors (including surgeons). Analysis from Figures 3.6 and 3.7 showed that doctors of some kind were the first and most frequent port of call for the participants, with 88% (n=29) mentioning these encounters. The remaining 12% (n=4) stated that the onset of their disability was early in their lives and they were not able to remember any details of the encounters. Each of the four main outcomes which resulted from encounters with doctors are presented below.

1) Assessment – Only 15% (n=5) of the participants specifically mentioned any assessment procedures that they underwent and in all of these cases it was in reference to an incorrect or delayed diagnosis. Details of the assessments were not collected as this information was not considered relevant to the aims of the study.

2) Action – Almost 50% (n=16) of the participants discussed the types of actions that were taken by their doctors (for some participants more than one action was mentioned), these included; supplying a prescription for medication (n=5), being signed off work (n=7), performing surgery (n=10), and treatment (n=2). Relevant to this study was the number of participants that were signed off work by their doctors. Although only seven of the participants disclosed this outcome, five were from the unemployed group (50%) and two were from the employed group (9%).

3) Referral – Just under 50% the participants (n=16) supplied information on referrals that doctors had made for them, these included; surgeon (n=8), consultant doctor (n=6), physiotherapist (n=4), psychologist (n=2), social services (n=2), rehabilitation centre (n=1), and pain clinic (n=1). The only

non-medical referral made by doctors was to social services, which in both cases was to arrange for home care for their patients. None of the participants mentioned referrals that were related to employment.

4) Guidance/information – Only 36% (n=12) of the participants mentioned being given any advice or guidance by their doctor(s) on how to manage their disability. Information that was supplied included; recommended time off work (n=5), advice on condition and exercise (n=3), physical restrictions (n=2), suggested job reallocation (n=2), advice on diet and medication (n=1), and support organisations (n=1). The data from this analysis show that very little information concerning employment was relayed onto the participants by their doctors, except to recommend ceasing work for a period of time.

Based on the information given by the participants, the role of doctors was mainly focused on medical treatment and interventions. Very little support or guidance was given concerning how the participant's disability or health condition would affect their employment or what could be done to manage it.

Allied medical professionals

This sub-group of 'health care professionals' consisted of all other health care professionals than doctors, this included the following professions; physiotherapists, occupational therapists, nurses, rehabilitation consultants, pharmacist, psychologists, acupuncturists, osteopaths, speech therapists, and pain clinic consultant. With 73% (n=24) of participants having some contact with this group there were several pertinent points raised under the four main outcomes.

1) Assessment – Only 15% (n=5) of the participants specifically mentioned having assessments, with two of these being medical tests and three done through consultations. No other details of the assessments were collected as this information was not considered relevant to the aims of the study.

2) Action – With 64% (n=21) the majority of participants provided information on specific actions that were taken by this group of stakeholders (for some

participants more than one action was mentioned), these included; providing therapy (n=7) or treatment (n=6), providing a wheelchair (n=3), supplying a home workstation (n=2), conducting an accessibility audit at work (n=1), providing funding for medical equipment (n=1), providing funding for IT equipment (n=1), making arrangements for a benefits advisor to come to hospital (n=1), and contacted a mental health volunteer organisation (n=1). As can be seen by these results a considerable amount of the actions taken by this group were related to employment, including the provision of a home workstation, IT equipment and initiating benefits from the hospital.

3) Referral – Only 24% (n=8) of the participants mentioned referrals being made by this group of stakeholders, these included: physiotherapists (n=3), GPs (n=2), specialist doctor (n=1), Independent Living Centre (n=1), and psychologist (n=1). Referrals that were made mainly centred around other medical professionals, with only one participant receiving information on where to go for assistance with managing their disability.

4) Guidance/information – 45% (n=15) of the participants mentioned being given any advice or guidance on how to manage their disability by this group. In several cases (n=6) this involved providing information on exercise, with only one participant (n=1) mentioning each of the following points; told to retrain for desk job, recommended seeing a DEA, told had to give up licence, told to look for low stress jobs, provided lifestyle counselling, made recommendations on office furniture, made recommendations on adapted office equipment, recommended careers, gave advice on Access to Work, provided information on coping strategies, provided information on making disability claims. As can be seen from this list the emphasis of information given by the allied medical professionals was much more related to coping with employment and daily living management than the information given by doctors.

The roles of this group were diverse but in most cases their objective was to help the participant achieve their maximum functionality, whether physical, sensory, or psychological, by providing some sort of treatment, rehabilitation or therapy. With respect to providing guidance or information on

employment related topics, participants felt that they were generally more helpful than the doctors, as can be seen from the information presented above. However only for about half of the participants was advice or guidance on topics directly related to employment topics supplied to the participants.

Government

Within the stakeholder group of 'government' there are several different agencies associated with unemployment and/or disability. The government staff encountered by the participants, within these agencies, included; Job Centre Plus advisors, Disability Employment Advisors, Employment support programme advisors (e.g. NDDP, Y2W, Shaw Trust etc.), Department for Work and Pensions staff, Department of Occupational Health and Safety, Transportation Agency Advisors, and Access to Work advisors. In total 73% (n=24) of the participants had encountered a representative of one of the agencies listed above. All of the remaining 27% (n=9) of participants were from the employed group and did not require any support or intervention from this group of stakeholders. There were a substantial number of outcomes associated with those that did have contact with this group of stakeholder, these were as follows:

1) Assessment – Less than 10% (n=3) of the participants discussed any type of assessment taking place through one of the Government agencies. In two of these cases (n=2) the assessment was related to a Access to Work conducting an evaluation of what workplace adjustments the participant would need to perform their job. The other case (n=1) involved having a skills assessment to determine what level of education the participant should start at. The results of this analysis show that assessment procedures were not common among this group of stakeholders.

2) Action – For 58% of the participants (n=19) some form of action was taken by this group of stakeholders. There was a wide range of actions mentioned by the participants, which included; arranged for job opportunities or interviews (n=9), signing the participant onto benefits (n=6), arranged for retraining (n=3), supplied taxis to work (n=3), arranged for placement (n=2),

supplied equipment or assistive technology (n=2), supplied a support worker (n=2), delivered a course on disability and employment (n=1), provided a grant to set up a home office (n=1), supported a business start up (n=1), provided funding for an adapted vehicle (n=1), supported return to work negotiations with employer (n=1). All of the actions taken by this group of stakeholders were focused on employment and in most cases the support of returning to or retaining work. The only exceptions to this were the instances of participants being signed onto benefits.

3) Referral – Forty-five percent (n=15) of the participants were referred onto other professionals by this group of stakeholders. The professionals participants were referred into included; Employment Support Programme Advisors (n=8), Disability Employment Advisors (n=7), Learn Direct (n=1), and Access to Work (n=1). All of the referrals mentioned by this group were to other professionals within the Government stakeholder group.

4) Guidance/information – Only 27% (n=9) of the participants referred to guidance or information that was supplied by this group of stakeholders. The type of information that the Government professionals did impart included; gave advice on inappropriate jobs (n=4), supplied information on benefits (n=3), told about Access to Work (n=3), gave career guidance (n=2), gave information on courses (n=1), told about right to stop working (n=1), briefed on rules of therapeutic work[2] (n=1), given advice to stay on benefits because would only qualify for a minimum wage job (n=1), and gave information on making an insurance claim (n=1). In addition to the statements made by participants that did receive information from this group of stakeholders several other participants (n=5) pointed out that this group of stakeholders refused to supply them with information because they were not receiving benefits.

The main purpose of the Government organisations encountered by the participants was in some way to offer support to people who were looking to gain or retain employment, in some cases this specifically related to people

[2] Therapeutic work is one of the government schemes that allow an individual with a disability to undertake 15 hours per week of volunteer work for up to 48 weeks, with a letter from the individuals GP.

with disabilities. This group was shown to be the most active in the return to work process by delivering the most employment related outcomes. Although there were several actions taken and advice or guidance given by this group not all of it was positive. Common reasons given for negative experiences were; being supplied with inappropriate job opportunities, encouraging the person to take less skilled jobs than they were qualified for and refusal to provide support because the participant was not on benefits.

Employers

This group of stakeholders encompassed any person who was in a position of authority over the participant usually being referred to as 'my boss' or any occupational health and safety representatives of the organisation. This could have specifically been the line manager, general manager, owner, or any representative of the occupational health and safety department. In total 64% (n=21) of the participants mentioned some contact with this group of stakeholders regarding their disability, these encounters are outlined according to the various outcomes below.

1) Assessment – Only 12% (n=4) of the participants mentioned any form of assessment being conducted by their employer. Most of these were for workstation assessments (n=3) and one (n=1) being for a medical assessment. The participants that discussed having an assessment conducted for workstation adjustments all stated that positive work solutions were implemented as a result of the assessments.

2) Action – Almost 40% (n=13) of the participants mentioned some action being taken by this group of stakeholders, these included; asked the participant what they needed (n=5), changes being made to the workplace or equipment (n=6), the participant being dismissed (n=3), changes to schedules being made (n=2), and changes to job tasks being made (n=2). The majority of the participants (10 out of 13) that discussed this outcome indicated positive action being taken resulting in employment being maintained, however for three of the participants their disabilities or health conditions resulted in their employers dismissing them.

3) Referral – Only 6% (n=2) of the participants were referred to other professionals by their employers, these were to their GP (n=1) and an Occupational Therapist (n=1). In both cases the referrals were recommended to seek further assessments of how the individual condition would affect their work.

4) Guidance/information – Nine percent (n=3) of the participants mentioned being given any guidance or information by their employers. This included one mention (n=1) for each of the following; advice on being 'pensioned off', discouraged from applying for other positions within company and given information on the DDA. These results show that there was very little useful information supplied by this group of stakeholders.

In addition to the outcomes associated with this group of stakeholders, several participants (n=7) made statements that their employer had not offered any type of support or been willing to consider instituting required work solutions.

Volunteer organisations

Participants had contact with a number of different organisations within the stakeholder group 'volunteer organisations', including; Celt, MS society, Scoliosis UK association, Action for ME, Royal National Institute for the Blind, Action for Blind People, The Independent Living Centre, Headway, The Back Centre, Disability organisations at work, Hammersmith and Fulham Action on Disability, and The British Dyslexia Association. Almost 40% (n=13) of the participants had contact with this group of stakeholders, with various outcomes.

1) Assessment – Only 3% (n=1) of the participants made reference to having an assessment done by a member of this stakeholder group, this was to determine if the person was dyslexic.

2) Action – Thirty-three percent (n=11) of the participants stated that this group of stakeholders had taken some action that affected them. These actions included; provided equipment (n=3), assisted with job search (n=3),

provided courses (n=2), formed a disability awareness group (n=2), provided funding for a carer (n=1), provided a sponsor (for support) (n=1), and set-up a support group (n=1). Although not all of the actions taken were intended to directly influence the participants' employment status, participants stated that there was some affect on their work due to these actions.

3) Referral – Only 6% (n=2) of the participants mentioned any type of referral being made by this group of stakeholder, in one case this concerned finding a consultant doctor, the other was to see an Access to Work advisor.

4) Guidance/information - With 3% (n=1) the delivery of advice by this group of stakeholders was very minor. The only incidence of guidance or information being given out to a participant concerned advice on living aids.

These data show that although volunteer organisations were cited frequently by participants as a source of work related activities, none of the participants made reference to obtaining any guidance or information from them on this topic.

3.12.3 Attitudes toward the employment process for people with disabilities

The third section of the interview included three open ended questions that were intended to gather data on what information the participants received in the past that had some influence on their employment status. A separate analysis was conducted for each of the three questions, with codes being assigned to each unique statement made by a participant. Once all of the codes were identified any codes that were similar were grouped together to establish primary codes. The following section presents the results for the primary codes identified in each question.

In the first question responses could not be gathered from seven of the participants as six of the participants had not been employed since the onset of their disability and one participant became emotional near the end

of the interview and was unable to finish. Therefore the sample for this question was reduced to 26 participants.

Q: Who or what would you say has been most instrumental in your getting into work and why?

A wide range of answers were given in response to this question, Figure 3.9 presents these data.

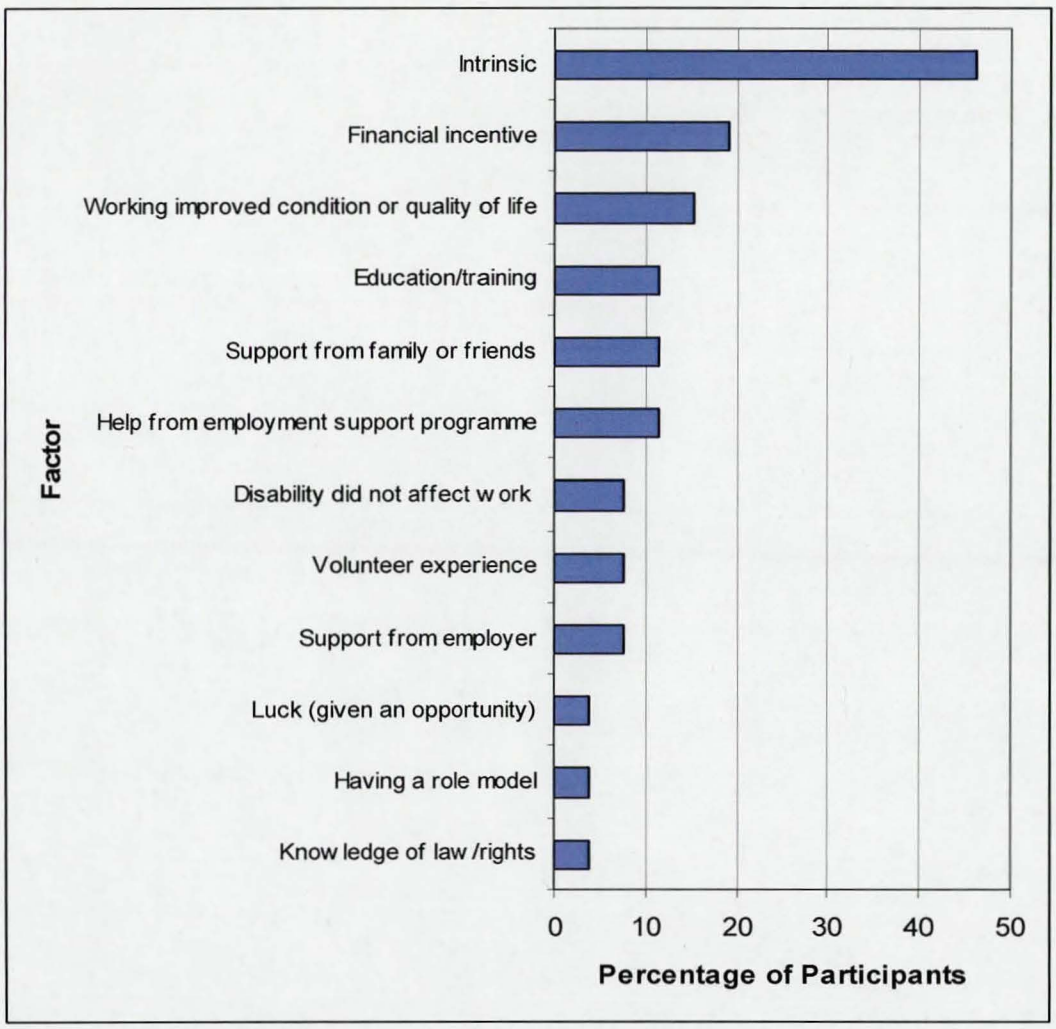

Figure 3.9: Factors affecting employment status

The results from this question show that the factor most participants attributed to their employment status was due to their own personality, specifically the following terms were used to describe these attributes; motivation, determination, pride, independence, and work ethic. Other common factors were financial motivation and belief that working contributed to the participants general well being. Only one participant

stated that their knowledge about disability and employment topics contributed to their employment status.

For the second question in section three there were 32 responses, only excluding the participant who was unable to finish. The question asked was:

Q: Is there anything that you can think of that you wish you had known earlier or something that could have helped you but you were not made aware of it when you needed it?

The data collected from this question fell under five major themes and are presented in Figure 3.10.

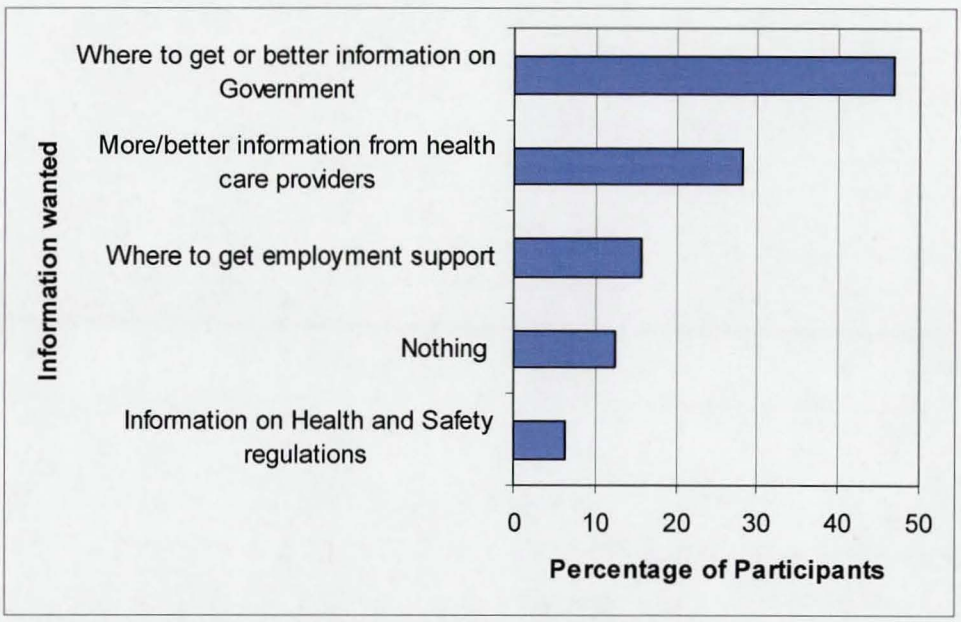

Figure 3.10: Information wanted by participants

Almost 50% (n=15) of the participants stated that they wanted more or better information on the Government and its related policies or programmes, this included the following specific topics; taxes, benefits, DDA, reasonable adjustments, Access to Work, and transportation agency schemes. Next to this with 28% (n=9) was the requirement for more or better information from health care providers, specifically; details of condition, how the NHS works, what therapies are available, and what could be done to prevent condition from worsening. To a lesser extent with 15% (n=5) participants wanted to know about where to find employment support programmes at an earlier date and 6% (n=2) thought that knowing what the

Health and Safety regulations were would have affected their situation. A few participants (n=4) stated that they were not aware of any information that they thought should have been provided to them earlier.

There were 32 responses for the third question, only excluding the participant who was unable to finish. The question asked was:

Q: If you could make any recommendations on how to help people with disabilities what would they be?

The data collected from this question revealed a wide range of recommendations from participants on how to help people with disabilities, Figure 3.11 provides a summary.

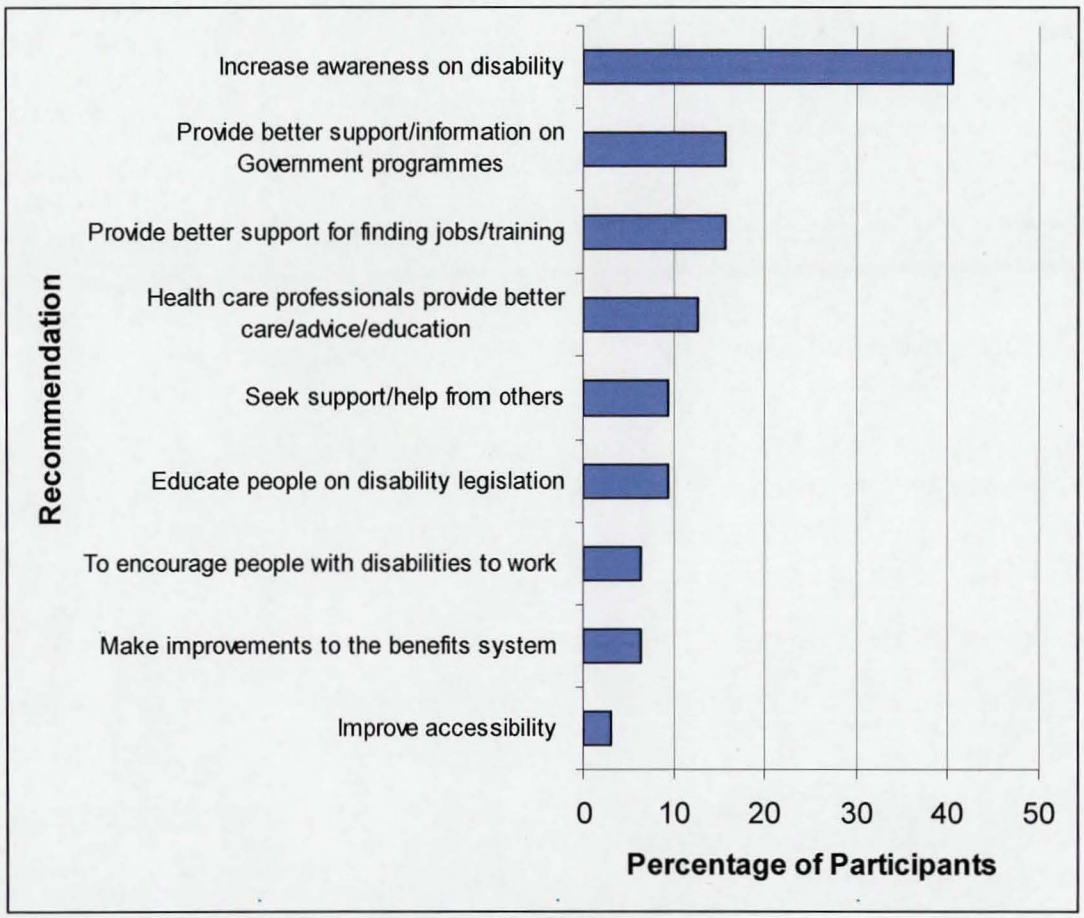

Figure 3.11: Recommendations from participants

With 40% (n=13) the most common recommendation made by participants, on how to improve the situation for people with disabilities, was to increase public awareness. These suggestions centred around listening to people

with disabilities to find out what their needs are and how they would like to be treated as well as how their disability affects them. Several of the other recommendations involved improving the services or dissemination of information from two of the other stakeholder groups including; Government (general n=5, legislation n=3, and benefits n=2), and Health care providers (n=4). Two themes emerged concerning people with disabilities themselves with recommendations to seek support when returning to work (n=3) and to encourage or 'push' people with disabilities back to work (n=2).

3.12.4 Knowledge of disability provisions

The fourth section of the interview asked five close ended questions on various topics relating to disability and employment. There were 32 responses, only excluding the participant who was unable to finish the interview.

Q: I am going to ask you how familiar you are with some subjects relating to disability can you tell me if you are 'very knowledgeable', 'somewhat knowledgeable' or 'not knowledgeable at all' about the following subjects?

1. *The Disability Discrimination Act*
2. *Disability Employment Advisors*
3. *Access to Work*
4. *Local support (disability or charity groups in their area)*
5. *Reasonable adjustments*

This section asked the participants how knowledgeable they were about five disability and employment related topics, if they stated they were 'very' or 'somewhat' knowledgeable they were also asked to explain the topic in order to validate their self assessment. This established whether there was a substantial difference in the level of knowledge of employed and unemployed participants. The participants' responses were then ranked according to the following quality of knowledge:

- Very – participants were able to give an accurate description.
- Some – participants could only give a vague description.
- None – participants were not able to give any description.

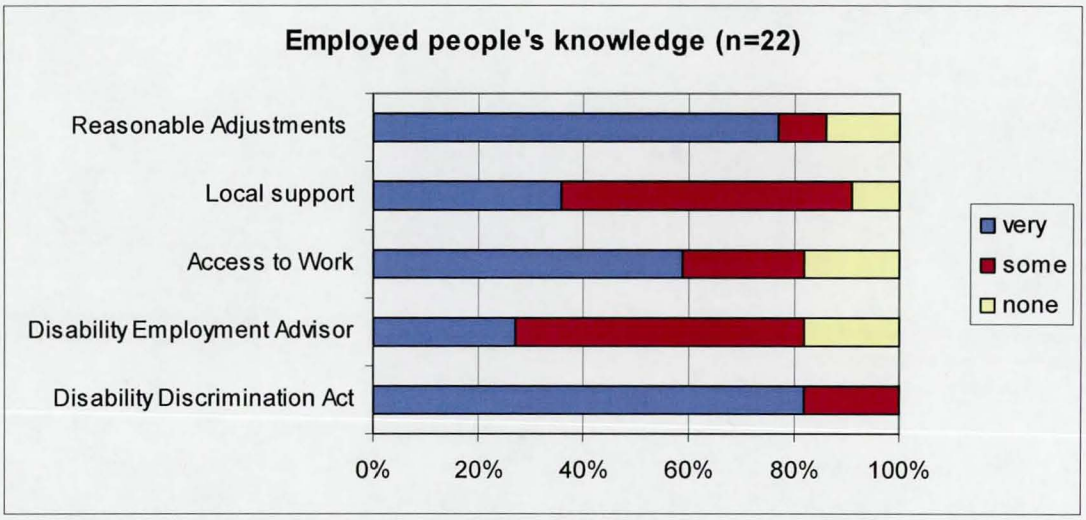

Figure 3.12: Knowledge ranking for employed participants

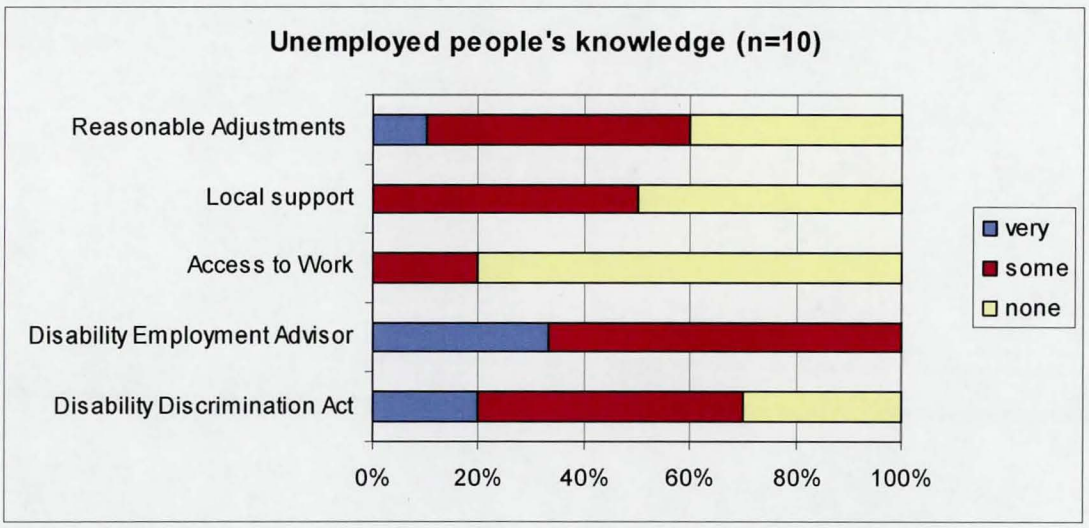

Figure 3.13: Knowledge ranking for unemployed participants

Figures 3.12 and 3.13 show that as a group the employed participants possessed a higher level of knowledge than the unemployed participants on the subjects of; reasonable adjustments, local support available, Access to Work, and the Disability Discrimination Act. The only subject that a higher percentage of unemployed participants were knowledgeable about was the role of Disability Employment Advisors.

3.12.5 Use of reasonable adjustments or assistive technology

In the fifth section of the interview participants were asked the following question:

Q: Are there any changes that you needed to make (or would need to make) to your workplace, the job, or getting to the job so forth in order for you to work or make work easier?

The purpose of this question was to investigate the participants' usage of reasonable adjustments to determine how this data could contribute to the development of a disability and employment information delivery tool. All of the participants (n=33) supplied information on changes that they had made or would need to make to some aspect of their job in order to work. To establish if there were any patterns in the type of work solutions that were used by the participants it was necessary to link the work solutions to each participant by the impairment. To do this primary codes were assigned to each participants impairment type (based on Figure 3.2), then secondary codes were given to the participants' specific impairment and finally all data collected on their use of work solutions was entered alongside the specific impairment. The results of this analysis are presented in Table 3.4.

Table 3.4: Work solutions associated with impairments by type

Disability or impairment	Adjustments made
Musculo-skeletal problems - back or neck	
Back injury - prolapsed disc	Moved office to first floor to avoid stairs, has special chair and desk and does not do any lifting
Scoliosis	Must avoid sitting for long periods, would need to have an adapted workstation (not sure what though)
Quadriplegic	Uses a mouth stick for tasks and chin controls wheelchair, uses computer technology (speech input software), adapted vehicle, special wheelchair and workstation set-up
Musculo-skeletal problems - legs or feet	
Neuropathy - affecting the feet	Limited ability to walk and cannot drive, would need to make travel arrangements
Unknown - no mobility in legs	Had to have file cabinets lowered, avoided workplaces that were not wheelchair accessible.
Bilateral amputation	Workplace needs to be wheelchair accessible, issues have been with carrying a tray in the canteen and needing a fire buddy, has a flexible schedule, special chair, automatic car then adapted and used with lightweight wheelchair, use of a 'grabber' to pick up objects
Osteoarthritis in the knees, hips and ankles. Has no kneecaps or cartilage in one knee	Workplace has to be wheelchair accessible, uses special chair, has a disabled bus pass
Stroke - hemiparalisis on left side, difficulty walking	Sometimes uses sticks for walking so workplace must be accessible, has a special chair
Periferia neuropathy - limited mobility in lower body	Had to have automatic doors installed at work to access from wheelchair, got a closer parking space and uses lightweight wheelchair with adapted vehicle
Osteoarthritis - limited mobility in legs	Had ramp installed at work to be able to wheelchair, special desk to allow for extended legs, and got a helper dog trained to help her get things like crutches, keys anything that gets dropped and shut doors etc., uses lightweight wheelchair for more manoeuvrability
Hyper-mobility syndrome - limited mobility in legs	In the conference room they put a roll-up foam mattress so she can rest her back. Access to work got her an especially supportive chair, a writing slope, a grabber to get things off the floor, a lift and does flexible part-time working
Persies Disease - Bilateral amputee	Workplace has to be accessible because of use of prosthetic legs or wheelchair, had a job reallocation (after loss of legs), uses an automatic car with adaptations
Cerebral Palsy - limited mobility in legs	Gets taxi's to work from Access to Work, sometimes needs help with carrying items because of crutches
Musculo-skeletal problems - arms, hands	
Arm injury - very limited use of left arm	Uses an automatic car
RSI in arm - very limited use of right arm	Had a job reallocation, now uses a headset instead for the phone, changed some doors, uses an automatic car
Wrist injury - some loss of mobility	Must avoid repetitive or forceful wrist movements.

Difficulty in seeing	
Partially sighted - low vision	Uses a 21' computer screen and scanner to enlarge hard copy, and a magnifier, telescope for glasses, taxi's, reading support (projection), large typed print for hard copy
Aniridia - low vision (missing iris)	17' flat screen monitor to reduce glare and enlarge text, used a laptop for taking notes, portable CCTV, some hand held magnifiers, mobility officer to help plan route to work, white cane, phones at work are controlled by a touch screen monitor too, disabled persons rail card, monocular to see bus numbers, driving may be an issue in future but could get Access to Work to pay for taxi's
Registered blind -can only see light and dark	Uses a splitter box for phone and Jaws, got separated to hear both through same head phones. By sending papers by email (to colleagues) has found that she can informally "swap skills" i.e. task allocation. Has used support worker for filing when it gets backlogged. Emails herself instead of using post-its, uses a scanner, also had some taxi's to work in between guide dogs
Partially sighted – low vision and photosensitivity (Albino)	Uses a copy holder to have documents closer, uses a large screen monitor and a big calculator employer got this from Access to Work. When on a training course will call ahead and tell them what is needed i.e. handouts for PowerPoint slides and flipcharts
Blind in one eye - right	Desk placement was changed because of vision and where the entrance is
Difficulty in hearing	
Loss of hearing in the right ear	Because of vertigo shouldn't carry some things, difficult to balance, so needs to get other people to help at times
Speech impediment	
No participants with this disability	
Skin conditions, allergies	
No participants with this disability	
Chest, breathing problems	
No participants with this disability	
Heart, blood pressure, circulation	
No participants with this disability	
Stomach, liver, kidney, digestion	
No participants with this disability	
Diabetes	
No participants with this disability	
Epilepsy	
Epilepsy	Only works day shifts, shouldn't work late or work too far away from home because of travel, avoids jobs with stress
Mental Illness - depression, bad nerves	
No participants with this disability	
Mental Illness - phobia, panics	
No participants with this disability	
Learning difficulties	

Dyslexia	Uses a computer to do reports, tried to use speech to text software but it didn't work because of office environment. Uses a hand held Dictaphone for home visits to make notes.
Dyslexia	Has a flexible working schedule, extra time with reading and coloured layovers
Progressive illness not elsewhere classified	
Multiple Sclerosis - affects whole body muscular weakening.	Cannot have workspace spread out (too tiring), must have time and space available to do exercises at work
Multiple Sclerosis - weakness and spastic on left side	Uses a stick, works one to two days a week from home if feeling ill, uses a laptop. Work did a Health and Safety assessment of work set up at home
Other problems, disabilities	
Chronic pain syndrome	In all jobs has had to work part-time, has a support worker through Access to Work, a special chair and uses a lower table
Cerebral Palsy - affects whole body mobility and voice	Workplace needs to be accessible for wheelchair (e.g.. ramps, doors etc.), has a higher desk, uses text to speech software (Dragon)
Myalgic Encephalopathy (ME)	Works reduced and flexible hours, option to work from home, close parking space to work building, used to get taxi's to work from Access to Work
Missing right arm and half of right leg	Uses wheelchair for long distances and can use sticks for short distances, needs a lift, headset, accessible doors, close parking space, more time for exams, help with carrying items, adapted car (automatic), and left hand mouse
Rheumatoid arthritis in all joints	Uses a computer with free standing arms, Posturite desk – surrounding (all within arms reach), ergo seat (body forming), speech operated computer, is able to control own hours
Muscular dystrophy – affects control of joints via muscles	Employer has made some adjustments, put in hand rails and reallocated some tasks

An extensive amount of data was collected from this question that could contribute to the content of a disability and employment information delivery tool. Two of the impairment groups, musculo-skeletal problems – legs or feet and difficulty in seeing, had a substantial number of participants that supplied information on their adjustment needs. In these categories there were several adjustments that were mentioned by more than one participant, for example in musculo-skeletal problems – legs or feet these included: special desks and chairs, use of a grabber, automatic or adapted vehicles, help with carrying items, alternative travel arrangements and changes to premises (ramps and doors). The difficulty in seeing category participants had the following work solutions in common: larger monitors,

magnifiers, using electronic documents instead of paper (through computers or scanners), magnifiers and taxi's to work from Access to Work.

The data from this question were able to demonstrate that several work solutions were applicable to different categories of impairments, examples of these included: flexible working schedules, working from home, adapted vehicles, special seating or desks, text to speech software, use of laptops to replace hand written notes and changes to premises for accessibility. This reveals that although there was a broad range of disabilities included in the sample, several adjustments could be applied to more than one functional limitation.

3.13 Discussion

The participants in this study supplied a wide range of information about their personal experiences and how these had affected their employment situation, many of which were quite similar. However it is important that the findings of this study are not oversimplified in order to 'generalise' them to the wider working age disabled population but instead highlight the diversity that exists within this extremely heterogeneous group. With this in mind it was still possible to examine trends in the data that were useful for making recommendations on how to support the information needs of people with disabilities in employment. It is important to note here that although participants provided a great deal of information on various topics, many of the participants were required to recall events that may have occurred a number of years in the past, which may have had an effect on the accuracy of the information provided.

3.13.1 Key stakeholders in the return to work process

The stakeholder groups identified by the participants as being the most frequently encountered were in order: health care providers, government agencies, employers and voluntary groups. These groups were also identified as the key stakeholders in the literature (Young et al., 2005; Commission of the European Communities, 2000) and the first three have been the main targets for recent government initiatives to improve the level

of access to vocational rehabilitation information and services (Prime Minister's Strategy Unit, 2005; Hutton, 2006; HSE, 2006).

The stakeholder group indentified by 88% (29 out of 33) of participants as having some influence on how they dealt with their disability was the health care professionals, in particular doctors (82%), making this the most prominent stakeholder group. Health care professionals were also identified as the first point of contact regarding their disability by 67% (22 out of 33) of the participants and the second point of contact for 64% (21 out of 33) of the participants. This places the health care professionals at the very beginning of the return to work or vocational rehabilitation process, which is of critical importance for early intervention strategies and shows that this group is the most logical choice for providing information to patients.

The role of health care providers was dependant on their specific profession. The outcomes[3] associated with doctors were almost completely related to medical supervision and only 6% (3 out of 49) of the total outcomes identified were related to support for employment. However for allied medical professionals (e.g. physiotherapists, occupational therapists, nurses, rehabilitation consultants etc.) the percentage of outcomes related to employment support was higher with 21% (11 out of 53). This shows that allied medical professionals place more of an emphasis on promoting work related activities than doctors but because they are encountered later in the return to work process this support may not be as effective.

The second most commonly encountered group of stakeholders was government with 73% (24 out of 33) of participants having some contact. Within this group participants made reference to seeing 'advisors' from a number of different agencies that were either a direct government department (Job Centre Plus, Access to Work, Disability Employment Advisor, Transportation agency) or held government contracts to carry out government employment programmes (New Deal for Disabled People, Yes2Work, Shaw Trust, Equal Opportunities, West Country Training Service, Remploy). Within this group of stakeholders there was a distinct

[3] For this analysis several outcomes could be associated with each participant.

divergence in the role that they played in the return to work process, mainly that the employment support programmes aimed at offering assistance to people who were unemployed and others (Access to Work, and the transportation agencies) were set up to help individuals retain work. Since all of the 'unemployed' group were recruited through employment support programmes, there was a high representation of this group of professionals overall. Despite the differences in the roles of the professionals in this group, their position in the return to work process was similar and for many of the participants more than one professional in this group was seen. Early encounters were common for the participants that needed to sign onto benefits (Jobcentre Plus) or were seeking support from Access to Work. Coming slightly later in the process were employment support programmes which participants had usually been referred to from Jobcentre Plus.

For the government stakeholder group 75% (52 out of 69) of the outcomes identified in the data were related to supporting work, making this group the most active in supplying work assistance. However there were four instances of participants relating accounts of inappropriate or harmful advice being given and five situations where participants were refused support by government agencies because they did not qualify. Much of the research done on the effectiveness of government agencies to support people with disabilities in employment have found that advisors are lacking training and have time limitations with clients that hinder the service client receive (Smith, A., 2002; Knight et al., 2005; Corkett et al., 2005; Dixon & Warrener, 2008). This has come to the attention of the government and measures have been taken to improve this situation (Purdon, 2006) however the outcome of these changes has not been established.

Encounters with employers relating to their disabilities where cited by 64% (21 out of 33) of participants. Most of the situations that were described came soon after the participant met with a doctor and established that their condition would be long-term and they knew could affect their job. Eighty-one percent (22 out of 27) of the outcomes from this stakeholder group involved some work support and was positively received by the participants. Conversely the remaining 19% (5 out of 27) resulted in the participant either

losing their current job or a new position. In addition to this several participants (7 out of 33) discussed how their employers were blatantly uncooperative which led to them seeking new employment. Participants revealed quite extreme experiences with this group of stakeholders, where employers either made a valuable effort which resulted in the employee continuing on in their job or they refused to make any effort to accommodate their employee which eventually led to the participant leaving. This direct link between employers support and employees successful work retention has also been established in other research (Smith, A., 2002; Purdon, 2006).

The volunteer organisations stakeholder group was the least common to be encountered among the participants. This group was identified throughout the return to work process and the role they had was dependant on the organisation. In 56% (9 out of 16) of the outcomes their role involved supporting the participants employment needs but with mixed results. Twenty-four percent of the participants (8 out of 33) felt that a volunteer organisation was helpful in reaching their employment goals while 15% (5 out of 33) were neutral or negative about the effectiveness the organisations services.

3.13.2 Factors contributing to employment

Participants in this study most commonly attributed their employment status to aspects of their own personality or because there was a need to remain employed, either psychological or financial. Conversely only a small number of participants attributed their successful employment status to assistance they received from a stakeholder group, namely an employment support programme or their employer (12% and 8% respectively). This indicated that people who have a disability do not receive adequate support from the stakeholders. This was substantiated by the data collected on what types of information the participants felt was important or lacking in the current system, which mainly revolved around the stakeholders.

The quantity and quality of employment related information was dependant on the stakeholder group as were the expectations from the participants.

Although doctors were found to be the most commonly encountered professionals for people with disabilities they supplied the least amount of guidance or advice to their patients. Allied medical professionals supplied more information than doctors but were still low with only 21%. Twenty-eight percent of the participants stated that information about their health condition and how it would affect work would have been valuable at an earlier stage. Additionally 12% of the participants recommended better service from health care providers as a way to improve the situation for people with disabilities. The recent vocational rehabilitation initiatives set forth by the government (Kennedy, 2004; Hutton, 2006) have identified that employment related support supplied by the NHS needs to be strengthened and are increasing the training that doctors receive in this area. However the government do not promote doctors becoming directly involved in the return to work process but rather require them to be able to signpost their patients to appropriate services within the NHS or DWP to ensure that more is done to prevent patients from losing their jobs due to a health condition. Although this will help people to get the support they need to stay in work, the data collected from this study show that doctors also need to supply information to patients on how their condition will affect their ability to do their job. However in studies where doctors were surveyed on their relationship with patients with disabilities they were found to be uninformed about disability issues and generally uncomfortable with dealing with this patient base (Aulagnier et al., 2005; Duckworth et. al., 2005).

In many of the interviews participants referred to phases of depression associated with their disability, all of which emerged during periods of unemployment. In the cases where participants sought advice from their doctors there was no connection made by the doctors to unemployment being the source of this depression, even though an extensive amount of research has concluded that long term sickness absence has been associated with the onset or aggravation of mental health issues, particularly depression (Fine & Griffiths, 2001; Schur, 2002; Purdon, 2006). Furthermore early intervention has also been identified as one of the main factors in successful return to work programmes (Smith, A., 2002; Shrey, 1995; James et al., 2006). By addressing employment related issues with

patients at an early stage it may be possible to avoid a large percentage of people with health conditions from being signed off on sickness absence. This substantiates the case for improving the delivery of information to this group of stakeholders in order that they may more actively support their patient's needs with regards to coping with their disability or health condition in the workplace.

Participants did not single out professions within the allied medical professional as lacking but were more general in their recommendations for improved services from health care providers in general. The literature on the recent initiatives also neglects this group with respect to their role in the return to work process, even though they have a substantial amount of contact with people with disabilities. The information participants were supplied by the allied medical professionals which was shown to be most valuable centred around workstation adaptations, how to cope with transportation issues and signposting to government support such as Access to Work and Disability Employment Advisors.

Several participants (27%) discussed employment related information that was supplied by government stakeholder groups, however almost half of the participants stated that a lack of information on government programmes and what support is available from the government was an area that needed to be improved or should be supplied to people earlier for it to be effective. The DWP has identified that government representatives need to improve their awareness of programmes that are available in the area of vocational rehabilitation in order to successfully reduce the number of people in receipt of disability related benefits and have included this stakeholder group in their initiatives (Corden et al., 2005; Hutton, 2004; Sainsbury & Davidson, 2006).

As stated earlier in this section 8% of the participants indicated that support from their employer was instrumental in their employment, however this group of stakeholders were not found to supply any useful information to the participants. The stakeholder group of employers was also not mentioned specifically by participants with regards to recommendations or need for

earlier delivery of information, indicating that participants may not consider employers responsible for this duty. It may however be possible that the recommendation to increase disability awareness (stated by 40% of participants) was meant to include employers.

The group of volunteer organisations was not mentioned by participants as being responsible for supplying work related information or instrumental in gaining employment. This group was also not included in recommendations made by the participants for areas that needed improvement.

All of the participants supplied information on adjustments that they had made (or would need to make) to either their workplace or how they organised their work, in order to accommodate their specific needs. This demonstrates that the use of adjustments is crucial for people with disabilities to be able to work. Although the participants represented a range to disabilities and therefore provided information on several types of adjustments, some of the same adjustments were used by participants with different disabilities. The implications of this finding, as it relates to the development of a tool to deliver disability and employment information including advice or guidance on workplace adjustments, is that solutions are not exclusive to a specific disability or impairment but may be applicable to multiple scenarios. In contrast several individuals with the same disability or impairment may use completely different adjustments to assist them in completing work related tasks. This illustrates that the tool should provide information on a range of adjustments that could be used for a specific situation, allowing the user to chose the most appropriate solution for their situation. Conversely within the system some adjustments can be presented for more than one situation. Figure 3.14 presents an example of how this relationship would be linked within the tool.

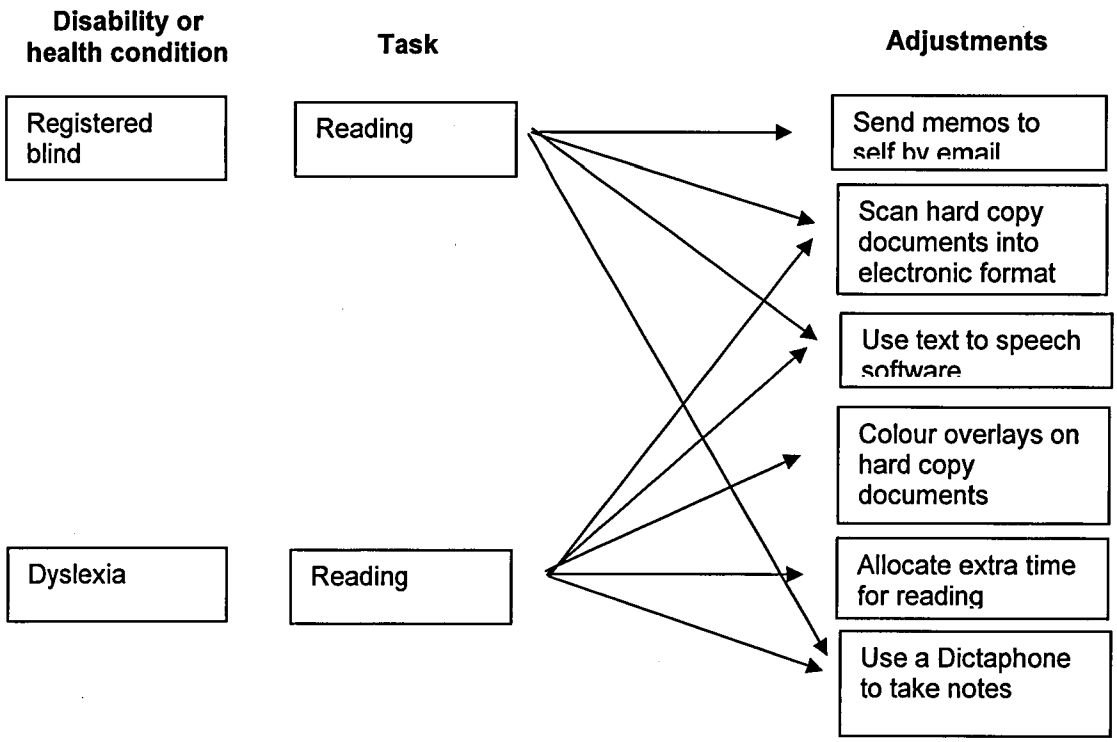

Figure 3.14: Linking between disabilities and adjustments

By compiling a list of adjustments that could then be linked to the disability or health condition and the task affected it would be possible to reduce the number of adjustments within the system by only presenting them once instead of each time it is relevant to a specific scenario. This has implications for the construction of the tool and how data will be organised in order to minimise the amount of redundant information.

3.13.3 Need for improved information system

Many points were revealed during the interviews that indicated participants had not received an adequate amount of information about topics related to employment at some point during their period of disability, which is substantiated by other studies investigating the return to work process (Hinman, 2001; Robinson, 2000; Booth et al., 2007). This finding was uncovered though both the lack of knowledge that the unemployed participants had concerning important disability related topics, as well as the statements made by 42% the participants that the main areas they found to be deficient in supplying crucial information involved the 'health care professionals' and 'government' stakeholder groups. The information that participants indicated should be improved or augmented ranged from

general information that would be useful to all people with disabilities to very specific details that would only be applicable to certain people depending on their circumstances. Figure 3.15, presents a summary of the types of information that this study revealed to be important to people with disabilities but underprovided by the stakeholders involved in the return to work process.

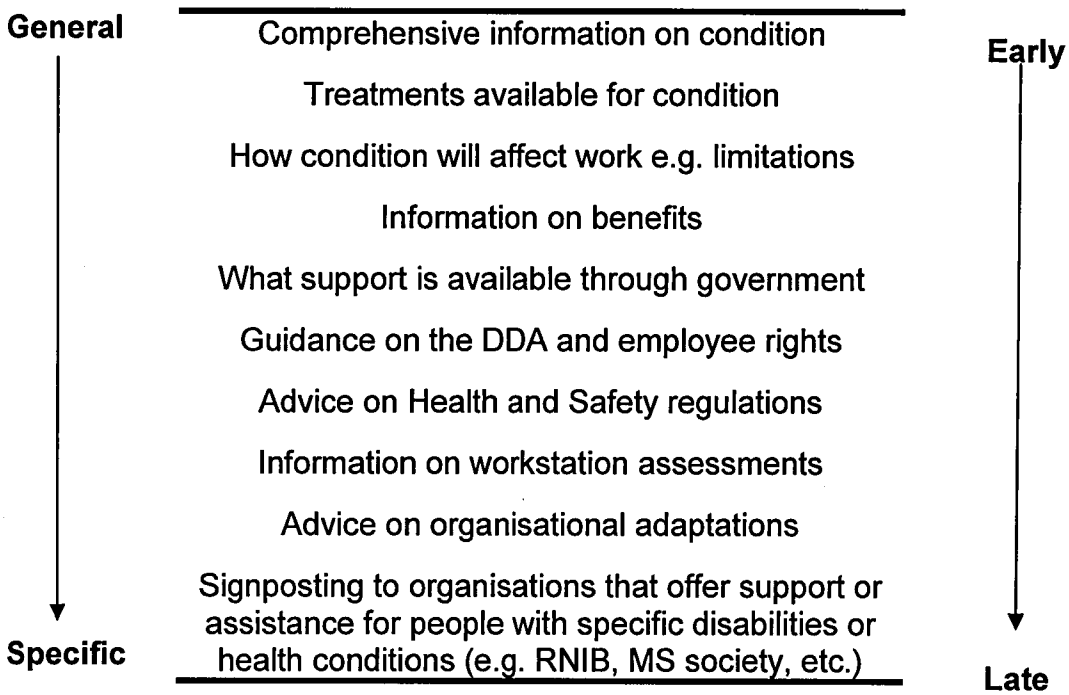

Figure 3.15: Information required by people with disabilities

As the information required by people with disabilities flows from general to specific it also relates to the stakeholder groups in the following order: health care professionals, government, employer, and volunteer organisations, which correlates to the sequence of encounters from early to late in the return to work process. This relationship could impact the structure of the information delivery tool in the organisation of the succession of information that is presented, as it relates to the timing and stakeholders involved.

3.14 Critique of the methodology

This section reflects on interviewing as the method used for this study and how it may have affected the results obtained. As discussed in section 3.4 interviews were chosen to gather in-depth data from the participants on what information they considered important with respect to disability and

employment. These data were then analysed using the grounded theory approach to determine if the participants identified similar types of information as crucial for them to remain in employment as well as which stakeholder groups where most prominent in the return to work process.

In the early stages of the analysis the researcher attempted to use Nvivo to organise the interview data and analyse the results. However this tool was not appropriate for developing the timeline of encounters that participants experienced or for calculating the frequency of which certain issues were identified by the participants. For these reasons the researcher chose more traditional methods for analysing the data, mainly by using spreadsheets.

The use of open-ended questions in the interviews was essential for the researcher to obtain information from the participants that was specific to their situation. By allowing the participants the freedom to explain the history of their experiences of dealing with their disabilities the researcher was able to gather very detailed information on how the system works. The more specific questions that were asked concerning their obtainment and use of information about disability and employment related subjects were also open-ended to ensure that bias on the part of the researcher was not introduced. Since the data obtained from these questions showed consensus among the participants this suggested that the methods were well suited to the purposes of the study.

One of the aspects to consider is that the study sample was small and therefore not completely representative of the disabled population as a whole. The sample for this study was compared to the population of working age disabled people for four separate variables: age, gender, impairment type and education. This was done to determine if the study sample was an adequate representation of the disabled population. The sample was found to be similar to the population in both age and gender with some categories being higher or lower than the population but still having a similar distribution to the population. The sample varied greatly from the population in impairment type which could be attributed to the sample size relative to the number of impairment categories, the sampling strategies or due to the

perception of what constitutes a disability by potential participants. The difference between the population and the sample in education was primarily seen in the substantially larger percentage of study participants in the 'degree or equivalent' category. This could be again attributed to the sampling strategy and where the request for volunteers press release appeared or due to the study requiring participants who are employed which would increase the probability of them having a higher education. The analysis of the onset of disability did not have a comparison sample from the population but showed that the full range of participants were represented.

The differences between the sample and the disabled population could have an effect on the generalisation of the results to the overall population of disabled people, as the experiences of the people that were included may differ from those that were not included. However the participants that were represented identified similar areas of difficulty, with respect to their experiences of disability and employment, regardless of their backgrounds and were comparable to those found in other studies (Robinson, 2000; Feuerstein, 1991; Young et al., 2005). Since there was consistency in the data collected from the sample and the sample represented a diverse group of participants, this indicates that the data could be applicable to the disabled population as a whole, however with a population that is highly diverse it is important not to assume that all the issues can be uncovered even with a much larger sample size.

A critical issue in this study was the sampling strategy used, since it was necessary to obtain disabled participants that were employed and those that were unemployed more than one approach was necessary. To recruit unemployed participants requests were sent to employment support programmes that worked with people with disabilities. This meant that all of the participants recruited this way had some contact with one of the stakeholder groups, government, as this was how they were identified. To reduce this bias in the remaining participants that were recruited a press release was used. Although the press release was initially sent to paper and electronic publications that were applicable to people with disabilities in general (e.g. BBC Ouch) after the release was sent other publications

including, RNIB, Arthritis News and Wheelchair Magazine asked for permission to run it in their publications (paper and electronic). The consequence of this may have been a higher number of participants with disabilities specific to the publication they subscribe to. It is also possible that people with certain types of impairments (e.g. mental illness, heart and breathing problems) may have a different definition of disability than those with physical or sensory impairments and would therefore have been less likely to respond to the request for participants. According to the LFS participants with a disability that falls under the broad categories of 'Circulation or digestive problems', 'Chest, breathing problems, skin problems or allergies' and 'Diabetes' are those most likely to be in employment (59.5, 65.2, 67.9 % respectively). Since these categories correspond to those in the study that have less participants than is usually seen in the working age disabled population, it could be concluded that they are less likely to feel that their disability has any impact on their employment experiences so they would have little to discuss in the interview.

In future research it would be recommended that similar methodology be used to gather data from the participants but that a larger and more stratified sampling strategy be used to ensure that the conclusions are valid for the whole population of people with disabilities. However in this population it is very difficult to obtain participants that represent each of the variables measured in this study as there are is a very wide range of conditions that can effect a person's ability to work and any given condition can have a number of affects on a person. This suggests that making generalisations about this group is not only next to impossible but should not be the goal of any study which seeks to understand the circumstances of people with disabilities in employment.

3.15 Conclusions

Supporting people with disabilities is one of, if not the main, purpose of several different stakeholder groups involved in the return to work process. However the quality, quantity and timing of this support has been shown by the data collected for this study to be deficient. As the purpose of the wider project is to design a tool that can deliver employment related information

for people with disabilities, it is necessary to learn from disabled people themselves what information they have found useful or difficult to obtain and incorporate this into the tool.

This study illustrated that the information needs of a person with a disability relating to work can vary widely from person-to-person, and in order for a information delivery or 'solutions database' to be effective the content must reflect this by including many levels of information, going from general to more specific. This will allow the user, or stakeholder, to identify appropriate support or solutions at every stage of the person's journey from onset of disability to full integration at work.

Chapter 4: Study 2 - Focus groups with stakeholders

4.1 Introduction

The overall purpose of this thesis was to develop a tool that would help support the information needs of people with disabilities in employment. Both the literature and Study 1 have identified a number of stakeholder groups within the return to work process (Young et al, 2005; Commission of the European Communities, 2000). The key stakeholders identified were; health care providers, government, employers, volunteer organisations, and working age people with disabilities. The lack of information and guidance given to working age people with disabilities concerning employment has also been established (Smith, A., 2002; Thompson, 2005; Prime Minister's Strategy Unit, 2005; Purdon, 2006). In Study 1 the needs of these people (i.e. the end user of the tool or main stakeholder) were investigated, this study covers the user needs of the other main stakeholders or hands on users (i.e. health care providers, government, employers, and volunteer organisations).

Since this tool was being developed to work in conjunction with the existing AbilityMatch assessment system, the same group of users were to be targeted. AbilityMatch was designed for use by trained professionals whose job it is to support people with disabilities in the return to work process. These professionals are broadly known as 'employment intermediaries' or 'vocational rehabilitation professionals' who include;

- Employment support program advisors (government contracted)
- Jobcentre Plus speciality advisors
    - Disability Employment Advisors
    - Incapacity Benefit Personal Advisors
- Vocational Rehabilitation specialists
    - Occupational therapists
    - Physiotherapists

- Human Resource managers

These professionals belong to various stakeholder groups but have a common goal; to support people with disabilities in employment. For example, a physiotherapist belongs to the stakeholder group of 'health care provider', and mainly is concerned with increasing the functional abilities of clients. However if they specialise in vocational rehabilitation their primary duty will be to get clients back to work, this makes them a 'vocational rehabilitation professional'. The data from Study 1 showed that, of the five most prevalent professionals encountered by working aged people with disabilities, three of these match the users already targeted by the developers of AbilityMatch (employment support program advisors, Disability Employment Advisors and Physiotherapists). The remaining two (general practitioners and employers) are important stakeholders but were not seen as potential users of the system, because they already have very specific job duties and are seen to be likely to refer a patient or employee needing disability and employment related support to a specialist (Hutton, 2006).

Study 1 established the information needs of people with disabilities concerning employment, as well as the barriers that they faced with gathering this information from the other key stakeholders. However the reasons for the barriers and lack of delivery of this information on the part of the other key stakeholders had to be examined as this was considered the starting point of the transfer of knowledge in the return to work process. Study 2 was conducted to ensure that the tool would address the needs of both the hands on users and the end users.

4.2 Study 2 aims

The key aims of this study were:

1. To establish whether participants required improved delivery of information on disability and employment related topics.
2. To determine where in the return to work or retention of work process the stakeholders were positioned and establish their relationship with other stakeholders.

3. To explore the types of information they provide to clients (working age people with disabilities) and from where they obtain this information.
4. To substantiate the need for the tool, determine what the tool should contain, and how the tool should be presented through aims 1-3.

4.3 Rationale for surveying stakeholders

The need to design the tool using a human centred approach was considered paramount to this project to ensure that the final product would meet the needs of the user (Eason, 1988; Lynch & Gregor, 2003; Butterfoss, et al., 2001). Study 1 investigated the needs of the main stakeholders, working age people with disabilities, in the return to work process. These main stakeholders were not the intended users of the tool, but instead the recipients of the information and guidance provided by the tool.

For the development of the tool to consider the context of use it was necessary to explore the way in which the remaining stakeholders were interacting with the other stakeholders and what information they were charged with supplying to working age people with disabilities. It was also important to explore the areas of information management with which the intended users were experiencing difficulty.

4.4 Methods

Data for this study were collected through Focus Groups which are commonly used in needs assessment studies, particularly for programme or product development (Sharts-Hopko, 2001; Hartman, 2004; Hernandez et al., 2008; Langford & McDonagh, 2003). This method was considered the most appropriate for gaining a consensus opinion from a group of people with similar backgrounds (Stanton et al., 2005). Focus groups also gain a broader scope of information than just agreement between participants, in that participants will hear what other members of the group have to say and may be inclined to elaborate or build onto previous statements. This allows the researcher to gain a fuller explanation of a particular topic than in individual interviews where participants may just give repetitive information. Within focus groups the researcher is also able to observe group interactions which can help them gain a deeper level of understanding about

how the group interacts with people in comparable positions, especially with regards to similarities and differences in their responses (Robson, 2002). Patton (2002) points out that focus groups are more appropriate for gaining insight into general themes as opposed to specific evaluations, this was considered a reasonable approach for the purposes of Study 2.

All questions used in the Focus Groups were open ended to obtain the richest data possible. Probing questions were used to facilitate a robust exploration of the issues and to guide the participants in the desired direction. Table 4.1 presents the important features of this method (adapted from Patton, 2002; and Robson 2002).

Table 4.1: Advantages and Disadvantages of Focus Groups

Advantages	Disadvantages
Cost and time effective because the researcher is interviewing several people at the same time	Limited number of questions that can be covered
Greater amount and range of data is obtained than in a single interview	Limited amount of time for each participant to respond
Interactions among the group prevent extreme or false information	May be difficult to manage the group and ensure that all participants are able to share their views
Researcher can assess which views are shared or diverse among the participants	Participants may be reluctant to voice views that may not be shared by the other participants
Participants may be inspired by what other group members are saying	Conflicts of opinion may cause group tension and affect other participants
	Because other people are present during the focus group confidentiality cannot be guaranteed

Adapted from Robson 2002 and Patton 2002

Due to the exploratory nature of this study the advantages far outweighed the disadvantages. This was justified because the aims of the study were focused on gathering general and factual information about how these groups of professionals fit into the return to work process as well as how they gather and use information to support people with disabilities in employment. The nature of the information that was being sought in this

study was the tacit and explicit knowledge of the participants. Therefore it was not deemed as important to gather data about the specific opinions of each group member, which can be difficult with the focus group method due to time constraints and group dynamics.

Focus groups have been used in other studies for evaluating programmes specifically aimed at improving support to people with disabilities (Talbot et al., 2005; Chang & Irving 2008; Shaw et al 2004), and for conducting user needs analysis relating to information delivery issues (Hepworth et al., 2003; Royle et al., 2000). This supports the suitability of this method for the purposes of this study as both a means to evaluate the process the participants currently utilise for gathering and delivering information to people with disabilities, as well as gathering data on how to develop an innovative new tool for this purpose.

Other data collection methods were considered for this study but were found to be unsuitable. Questionnaires would not have generated the depth of information required nor allowed the researcher to follow up on unexpected answers. Interviews would have been difficult to organise as the required participants were very busy professionals with full days of appointments, which would have made it difficult to recruit participants. Focus groups allowed the researcher to gather the cumulative knowledge of several participants in one session and were easier to organise by joining a pre-existing group meeting to conduct the research.

4.5 Sampling

Purposive sampling was used for this study, which was chosen to ensure that the study participants were representative of the target users. The five professionals that were identified through Study 1 as most likely to have contact with working age people with disabilities were; GPs, employment support programme advisors, employers, Disability Employment Advisors, and Physiotherapists. As noted in section 4.1, the stakeholder groups of GPs and employers were already excluded as potential users and were therefore not sought as participants. In order to recruit the desired participants, the committee that supervised the development of the

AbilityMatch system were consulted as they had established contacts in all areas of vocational rehabilitation.

The committee members supplied the contact details of two major contract holders for employment support programmes; Shaw Trust and West Country Training Services (WCTS). Additionally a contact was obtained for a Disability Employment Advisor (DEA) group leader who had regular meetings with a number of DEAs in the London area. In February 2006 all contacts were sent emails explaining the purpose of the study and requesting their participation. The Shaw Trust declined the invitation to participate due to scheduling difficulties, but both the DEA leader and the manager at WTCS agreed to the researcher conducting a focus group at the beginning of their up-coming staff meetings. The participation information sheets were sent to the organisers, to be forwarded onto the participants before the focus group took place (See Appendix G for participation sheets and Appendix C for consent forms).

After completing these two focus groups the researcher required data from the other identified employment intermediaries and vocational rehabilitation professionals to ensure the range of target users was included in the sample. The committee members were contacted again to ask for their assistance with recruiting participants that were involved with supporting employers and allied medical professionals that worked in the vocational rehabilitation field. Once focus groups were conducted with these two additional groups (details provided in Section 4.6) the majority of the data being gathered was becoming repetitive and had therefore reached a point of saturation that was considered satisfactory.

4.6 Data collection method

The specifics of each focus group varied due to group size, time constraints and background of the participants, therefore each of the groups will be discussed separately in the sections below.

4.6.1 Focus group 1- Disability Employment Advisors

The first focus group was with Disability Employment Advisors. This took place in March 2006 in a meeting room at a Jobcentre Plus in north London. A total of eight DEAs were present as well as the group leader, who held a higher position in the organisation and agreed to observe rather than participate. The group was made up of four females and four males. The participants each worked in a different Jobcentre Plus location around the London area and were acquainted with each other to various degrees. The participants were asked approximately how many years of experience they had in the position and a range of responses were given with participants having between two years and 12 years of experience. The duration of the focus group was 54 minutes.

4.6.2 Focus group 2 – Employment support programme Advisors

Focus group 2 was held with personal advisors from the employment support programme WCTS which covered the West Country area. WCTS held several contracts with Jobcentre Plus to provide employment support services. The group that participated in the focus group worked on a programme specifically for unemployed people with disabilities. The focus group took place in one of the company's offices near Bristol in June 2006. There were seven participants, three males and four females. The participants were not asked how long they had been working in their position as the programme had only been running for one year. The duration of the focus group was 75 minutes.

4.6.3 Focus group 3 – Vocational Rehabilitation Specialists

In November 2006 contact was made with a lecturer who lead a course in Vocational Rehabilitation. The lecturer taught students who were professionals working in the field of vocational rehabilitation with the majority being physiotherapists and occupational therapists that were placed in community support teams. The lecturer was contacted and asked for permission to conduct a focus group with the class and was forwarded participant information sheets. The lecturer and students agreed and the focus group took place in December 2006. There were seven participants, three males and four females. Three were physiotherapists, three were

occupational therapists and one worked in human resources for a large company. All participants conveyed that the primary responsibility of their positions was to offer support to people with disabilities in the return to work process. A strict time slot of 45 minutes was allocated for the focus group so the last theme could not be covered.

4.6.4 Focus group 4 – Employer and Employee Support Programme Advisors

In January 2007 the researcher contacted an organisation called Deploy based in Sheffield, in order to recruit participants who had knowledge of employer support needs. This organisation had two roles, mainly as a support programme for employers seeking to employ people with disabilities and also as a contract holder for an employment support programme for unemployed people with disabilities. The organisation agreed to participate in a focus group and was sent participant information sheets. The organisation had recently finished their contract for the employment support programme so there were currently only three employees, two females and one male that were able to participate in the focus group, which took place in their offices in Sheffield and lasted 40 minutes.

4.7 Piloting

Focus group 1 was used to pilot the questions. Once the data were collected the video tapes were transcribed and the transcripts were reviewed to determine if the data were satisfactory for the purposes of the study. The questions were found to be appropriate for obtaining the essential data so were left unchanged for the remaining focus groups and the data from all four groups were included in the analysis.

4.8 Design of focus group questions

Figure 3.15 depicting the hierarchal information needs of working age people with disabilities established in Study 1 was used to inform the general design of the focus group questions. The approach taken was one that initially explored more general areas of information usage and then narrowed down the line of enquiry to concentrate on specific actions taken in the return to work process.

The questions for the focus groups centred around five central themes: 1) client information, 2) delivery of information, 3) ergonomics, 4) tool design, and 5) issues encountered. The focus group questions are presented in Appendix H. The focus group itself had two parts to it, questions asked before an explanation of the project was given and questions asked after the explanation. This was done to ensure that participants did not provide biased answers on the general topics of information delivery as a result of knowing the purpose of the project. Questions asked after the explanation were specifically to gain input on the content and design of the tool from the participants' viewpoint.

4.8.1 Referrals

A referral section of the focus group was devised to gather data on the contact participants had with other professionals. The purpose was to substantiate and augment the data collected in Study 1, regarding which professionals are involved in the return to work process and when they enter the process. Participants were first asked about where their clients came from, i.e. how they were referred to them and then were asked which professionals they refer clients onto for additional or specialised support.

4.8.2 Information

The next section in the line of enquiry was to establish the information needs of the clients and how the participants gather this information themselves. The objective of this section was to determine what information the tool should contain in order to support the needs of the user. The questions asked were intended to explore the process the participants followed with their clients and the information requirements they have throughout, including; what information the participants gave to the clients, where the participants got this information from, and any difficulties they encountered with gathering this information. They were also asked to provide information on their experiences with clients wanting support with job retention as opposed to return to work encounters, this was to establish if there were any differences in the type of information or the process that clients in this situation require. In order to examine how the tool could

support early intervention strategies, the participants were asked about their experiences with clients that had been dismissed by their employers. In order to establish on which disabilities or health conditions the tool should contain information, the participants were asked about the most common disabilities that they encountered among their clients.

To ascertain participants' current practices for obtaining information they were asked questions relating to any resources they frequently accessed and what type of information they obtain from them. The purpose of these questions was to determine if any approaches for information gathering used by the participants could be incorporated into the development of the tool. Specifically the participants were asked about the types of information they had difficulty obtaining, and what organisations or information sources they found particularly useful. They were also asked if they belonged to any knowledge sharing schemes and how they had built up their level of knowledge since starting in their profession.

4.8.3 Ergonomics

To determine the level of need that participants had for 'reasonable adjustment' or ergonomics information, the participants were asked questions about their level of involvement with making workplace adjustments. They were also questioned about the types of adjustments that their clients most often required and their experiences with organisations that offer support with reasonable adjustments, in particular Access to Work. The data collected from these questions were used to establish how much of the content of the tool should be dedicated to specific information on work solutions and what type of work solutions should be included.

4.8.4 Explanation of project

Before the questions in the following sections (4.8.5 and 4.8.6) were asked the participants were given a brief description of the project with the following statement: *I am currently involved with developing a tool that will supply information on various topics related to disability and employment. The tool is being designed to support the information needs of professionals*

such as yourselves. This statement was immediately followed up with the question: *What information do you think should be included?*

4.8.5 Tool design

The purpose of this section was to gain specific user needs information. The questions covered were; what information the participants would want in the tool, what information would help them to do their job, how they would want the information delivered (e.g. electronically, on paper, as a service), and how often they would use it. This information was used to establish details about the content, structure and execution of the tool.

4.8.6 Issues encountered

To conclude the focus group participants were asked what the most frustrating part of their job was and what they thought could be done to improve these issues. The purpose of these questions was to establish if there were any additional areas that the tool could provide support for that had not been previously been considered. It was also expected that any issues with organisational culture would be revealed in this section, which was deemed an important aspect of how users may interact with the tool.

4.9 Ethical considerations

Full ethical committee approval was not required for this study in accordance with the Loughborough University Ethical Committee Guidelines; an ethics checklist was sufficient. The justification for this was that all of the participants were consenting, they were all able bodied adults and were informed that they had the ability to withdraw at any time. They were also informed of the focus group recording procedure for the purposes of the data collection and were given the opportunity to refuse having the session recorded. To gain consent participants were ensured confidentiality and protection of their identities. Participant numbers were assigned to the focus group notes to ensure anonymity. These were kept separately from the contact information and consent forms. All of the consent forms were kept in a secure location.

4.10 Equipment

All of the focus groups were conducted in quiet, private meeting rooms. For the purpose of gathering accurate data a digital video recorder was used throughout all of the focus groups, this allowed the researcher to identify which of the participants was speaking and transcribe the sessions verbatim at a later time.

4.11 Focus group procedure

Group leaders that agreed to take part in the study were provided with participant information sheets to distribute to potential participants. A date and time was set by the group. Upon arrival of the researcher, participants were asked if they had read and understood the participant information sheets, if they had not they were given a copy. Consent forms were distributed by the researcher and, once signed, were collected. The participants were asked if they had any objections to being video taped and advised that it was solely for transcription purposes and would allow the focus group to progress more quickly. The video recorder was set up in an unobtrusive area of the room to reduce awareness of it during the discussion. Once the recording started the researcher reiterated that the participants were free to withdraw from the study at any time. The participants were told that the specific purpose of the project would be discussed midway through the questions, so that their answers for the first part of the focus group were not influenced by the aims of the study. Key points were noted during the focus group in case of equipment failure.

4.12 Data analysis

The discussions from the videotapes were transcribed and entered into a word document (see Appendix I for example transcripts). Primary and secondary codes were allocated according to the focus group schedules' major themes and sub-questions respectively. This gave five primary codes and a total of 15 secondary codes. The data were analysed using thematic analysis which allowed the researcher to identify all data that related to the established codes (Aronson, 1994). To do this the transcripts were reviewed and passages of text were assigned to the relevant primary codes. These

were then sorted into groups and each group was reviewed again to assign secondary codes relating to the sub-questions. This resulted in a series of abstracted text under each secondary code. Figure 4.1 presents the codes identified in the focus group data.

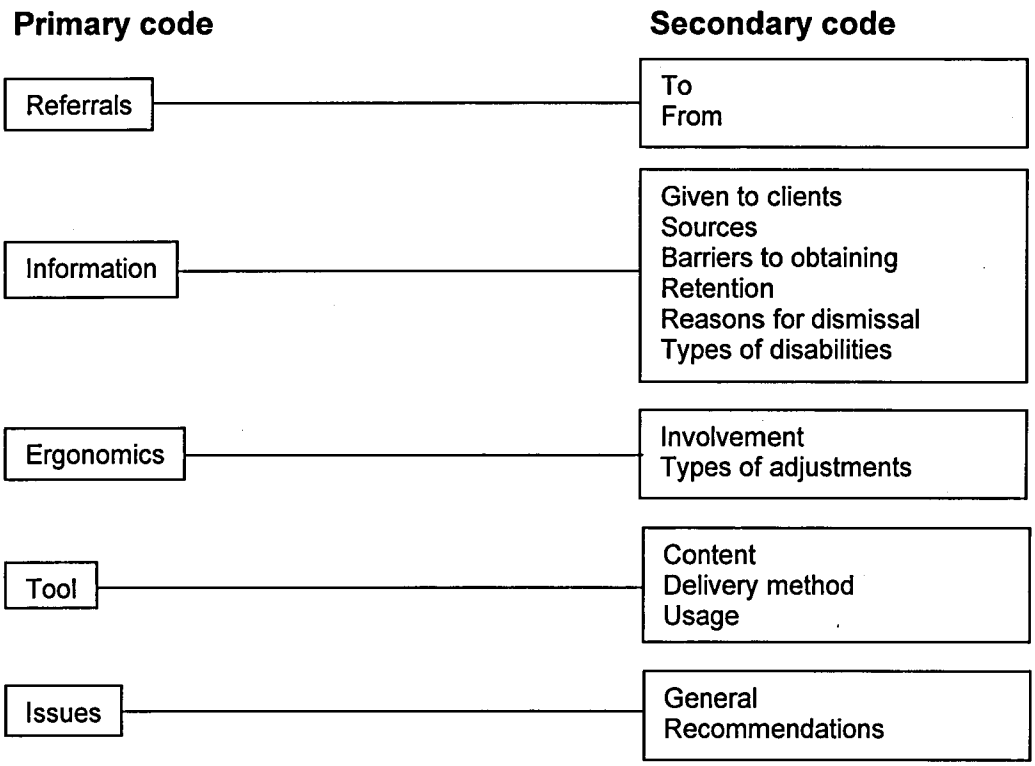

Figure 4.1: Focus Group Codes

The focus groups were also analysed to observe any interactions that took place within the group that could be considered important to the aims of the study, as recommended by Catterall & Maclaran (1997).

4.13 Results

The themes that emerged from the focus groups were defined by the primary codes. The results from each of these will be presented, along with the secondary codes in the following sections.

4.13.1 Referrals

A number of organisations or types of professionals were identified, by at least one of the participants in a group, as contacts with whom they frequently dealt. The encounters were separated into two tables to show

referral patterns to and from the participants, Table 4.2 and 4.3 show these links respectively:

Table 4.2: Organisations referring clients to participant groups

Referred from	Group 1 - Disability Employment Advisors	Group 2 - Employment support programme advisors	Group 3 - Vocational rehabilitation specialists	Group 4 - Employer / Employment support programme advisors
Jobcentre Plus advisors	X	X		X
Occupational therapists	X			
Mental health teams	X	X	X	
Volunteer groups	X			
Social workers	X		X	
Self - referrals	X	X	X	
General practitioners	X	X	X	
Employers	X		X	
Occupational health managers			X	
Primary care trust	X	X		
New Deal for Disabled People	X	X		X
Supported employment agency			X	
Disability Employment Advisors			X	X

This matrix shows that the four groups of employment intermediaries or vocational rehabilitation professionals were referred clients from a number of organisations or professionals. The referrals most frequently came from the following: Jobcentre Plus Advisors, mental health teams, self-referrals, GPs, and New Deal for Disabled People Advisors. To a lesser extent referrals came from; occupational therapists, volunteer groups, social workers, employers, occupational health managers, Primary Care Trust, supported employment agencies, and Disability Employment Advisors. This substantiates that all of the activity in the return to work process is generated by the five main stakeholder groups of; health care providers, government, employers, voluntary organisations, and working age people with disabilities.

Most of the groups indicated that they were referred clients through doctors surgeries (GPs) However, when participants were prompted to elaborate on their contact with GPs they generally indicated that the link was quite poor and infrequent, the following quotes were an example of this:

> DEAs, Male 2- '*When I say early stages I mean that there has been quite a lot of discussion regarding GPs coming more on-board, talking to people about the value of work, in the medical centres and the surgeries generally. I think that it is really in its infancy because there seems to be a lot of opposition to that from the GPs, but having said that I am getting some interactions from some of them but that really is quite a few (i.e. low).'*

> Employment support programme, Female 4 – *'Doctor's surgeries is still an area that needs to be developed because there is a focus on that on a national level and we want to develop it anyway because it is a move towards helping people with disabilities*'.

The main source of referrals to the intermediaries came from the 'government' group of stakeholders, including Jobcentre Plus Advisors, Disability Employment Advisors, Mental Health Teams, and New Deal for Disabled People Advisors. Self referrals were also shown to be common amongst the groups, where clients became aware of the intermediaries services mainly through advertising.

Table 4.3: Organisations participant groups refer clients to

Referred to	Group 1 - Disability Employment Advisors	Group 2 - Employment support programme advisors	Group 3 - Vocational rehabilitation specialists	Group 4 - Employer / Employment support programme advisors
Occupational Psychologist	X			
Programme provider (e.g. Workstep)	X			X
Volunteer groups				X
Debt management consultants		X		
Substance abuse organisations		X		
Housing authorities		X		
Colleges		X		
Immigration specialists		X		
Citizens advice bureau		X		
Access to Work	X	X	X	X
Disability Awareness training				X (employers)
Jobcentre Plus				X
Other employment support programme				X

The data collected on which professionals or organisations that the participants referred people onto was much more limited, with the only common one across all groups being Access to Work. The group of employment support programme advisors referred clients on to specialist organisations much more than the other groups.

The data collected from these two questions show that the links between the various groups of stakeholders is considerable and corroborates the referral patterns established in Study 1. In general the patterns show that the participants' clients have initial contact with front line government agencies such as Jobcentre Plus who then refer individuals with disabilities onto the participants for more specific support, the participants in turn consider the clients individual needs and refer them onto specialist organisations. This process does have a substantial amount of overlap in where the clients are

coming from and going to, creating an almost cyclic affect in the referral pattern.

4.13.2 Information

One of the main objectives of this study was to establish the information needs of the users, including; what information participants typically gave to clients, where participants obtained information from and difficulties with acquiring information. In addition to this it was important to determine how the information on specific situations such as; dismissals, retention and types of disabilities, differs from the standard needs of the user. Each of these topics was examined separately with the results presented in the following sections.

Information given to clients

Several types of information that participants passed on to clients were common between the groups, the main ones encountered were:

- Requests for information on jobs, which included; where to look, getting training, opportunities available, how to apply, help with CVs, and how to address gaps in employment history.
- Information on benefits, including; how working will affect benefits, what benefit clients were entitled to, and in-work calculations[4].
- Topics only mentioned by one of the groups were; support available once in employment, rights under the DDA, how to handle disclosure of disability to potential employers, and where adjustments could be made to the job.
- The group that also supported employers only mentioned these clients wanting information on what financial support was available if they hired a person with a disability.

Participants were also asked if there were any types of information that they gave to clients without them asking for it. This produced a range of answers including;

- advice on housing support,

[4] In work calculations are conducted with individuals that are receiving benefits but are engaged in some part-time work, these are done to determine the amount they are eligible for.

- conducting in-work calculations,
- contact details for Access to Work,
- training opportunities,
- and information on other specialist employment support programmes.

One group also mentioned a leaflet that their organisation produced that had contact information for a number of useful organisations including Jobcentre Plus and the Citizens Advice Bureau.

The data collected from these questions contributed a considerable amount of information on what topics should to be included in the content of the tool. The nature of the information that was sought by clients also indicated that users would need to cover these topics with clients at an early stage in the return to work process, as most of the information was required before resuming work.

Sources of information

To establish what sources of useful information are already available to stakeholder groups, participants were asked from where they currently gain information. Two of the groups identified training and experience as being the main sources of their information about disabilities and employment. Both of these groups explained that they had internal training programmes, however one group stated that training offered by their organisation was being cut back over time:

> DEAs, Female 2 – *'The amount of training depends very much on when you started, I had 3 separate weeks of very attitudinal based training done by very specialist organisations and those that have been doing it longer than me have had even more training and the babies (newer DEA's) probably only had two or three days.'*

The other sources of information that were mentioned were; Incapacity Benefits Personal Advisors, Disability Rights Commission, Employers Forum on Disability, and Volunteer groups. Later in the focus group participants were asked if there were any sources of information that they found particularly useful. All four of the groups cited the internet as a major source

of information, several sites or search terms were mentioned by the groups and these are presented in Table 4.4.

Table 4.4: On-line information sources cited by focus group participants

General site searches	*Specific sites*
Disability and conditions	DWP intranet
Pharmacology	Learn direct
Job descriptions	Local first
Local labour market information	Direct Gov
	Connections – occupations directory
	Kompass directory
	Apple Gate
	Denton's directory
	Disability Rights Commission
	Health and Safety Executive
	Glad

The main types of information on which participants sought information were for general information on disabilities and health conditions and benefits. In addition to the on-line information sources two other sources were mentioned; the Disability Rights Commission helpline (telephone service) and the business section of the newspaper.

Participants were subsequently asked about support organisations that they found useful, the replies were separated into general and specific organisations and are presented in Table 4.5.

Table 4.5: Organisation sources cited by focus group participants

General organisations	*Specific organisations*
Occupational therapists	Richmond Fellowship Trust
Social workers	Mencap
Housing associations	Remploy
Hospices	Mind
Basic skills providers	Living Options
Community Health Teams	Amber Foundation
	Alcohol and Drugs Advisory Service
	Citizens Advice Bureau
	Shaw Trust
	Employment Opportunities
	Bridge Employment
	Jobcentre Plus
	Primary Care Trusts
	Institute of Occupational Health and Safety

The organisations most frequently mentioned by the participants were; Community Health Teams, Jobcentre Plus and the Citizens Advice Bureau.

The objective of gaining information on the resources participants found to be valuable was to obtain a comprehensive list of information sources that could be included in the tool, therefore a comparison of the data obtained from each group was not required.

To determine if there were any knowledge management practices that could be incorporated into the development of the tool participants were asked if they belonged to any knowledge sharing groups or networks. The groups responded differently, therefore each will be discussed separately:

1. Disability Employment Advisors – All participants had attended presentations given by local programme providers, or operational partners (i.e. Jobcentre Plus employees). Generally they were provided with information from management or given disability supplements (information factsheets) on a regular basis to keep them informed. Participants stated that they received their most useful information from each other, either by word of mouth or by email memos sent when someone came across a relevant piece of information. On a more formal level some participants were members of a strategic committee and one was a representative for regional meetings.
2. Employment support programme advisors – This group mainly referred to business or employer oriented organisations including; the Chamber of Commerce, Federation of Small Businesses, and an internally initiated scheme which held regular meetings with local businesses to discuss their needs.
3. Vocational rehabilitation specialists – Each of the three types of professionals in this group (physiotherapists, occupational therapists and human resource staff) belonged to their own professional bodies, which were responsible for organising networking days or professional development courses.
4. Employer/employment support programme advisors – This was the only group to belong to an established networking organisation. The

participants explained that in the Sheffield area there was a high incidence of disability related unemployment. To tackle this the Sheffield Health and Work Strategy Group were responsible for organising networking days where all the organisations in the area, that had some interest in health and employment, were invited to attend a variety of activities. This network brought together Primary Care Trusts, Social Services, Community Health Teams, Sheffield Occupational Health Advisory Service, volunteer groups, and Jobcentre Plus to support interworking and co-operation for the benefit of the clients. One of the activities that they discussed was known as 'speed dating' where members sat at tables and rotated their partners in order to learn about what the other members could offer clients and how they could work together. They also conducted an exercise where they used case studies to walk through the return to work process and asked network members to identify what support they could offer the hypothetical clients at each stage, thus producing a timeline of organisational support throughout the process.

The data collected from this question yielded information on a wide variety of knowledge sharing practices that warrant consideration of how the tool can be developed to incorporate some of these techniques.

Difficulty with obtaining information

To ensure that the tool would be indispensible to users it was considered important that it contain information that is typically difficult to acquire. There were two main topics that the groups identified as being problematic for obtaining accurate information on; benefits and funding. The issues related to benefits included; rules on eligibility, access to in-work calculations and benefits available under specific circumstances. To elaborate on this the participants were referring to the overall benefits system and how the monetary allocation for clients is decided. There are a vast number of rules that apply to an application for support, so it is difficult to give information to a client regarding what they are eligible to receive as the rules vary over time and depend on geographic location. Examples of this are represented in the following quotes:

DEAs, Male 5 – *'there is also the difference of the eligibility with the different programs, some of the programmes I have deferred to have instant access others you have to wait 6 months, if they are on benefit or what benefit they are on, unless they are on the right benefit for the right amount of time they can't access the programme'.*

Employment support programme, Male 3 – *'it is often about keeping up with the changes within the system for instance Jobcentre Plus will have stopped funding certain things and people will come to use it and expect to be sent on a course and they can't understand why they can't still do it, so you need to be always making yourself aware of what the changes are. This is what I find most difficult because you are not always made aware of what the changes are'.*

Participants agreed that it was difficult to gather information on funding, particularly where to access funding for client training, especially in basic skills or IT, and renewing qualifications. Other elusive types of information identified by participants were; what skills employers are looking for, job opportunities, information on the employment services structure (now Jobcentre Plus), effects that disabilities have on people, what other providers were available, and linking rules (clients receiving support from more than one provider). The last two points refer to the range of support that the government offers as well as who is eligible for this support. The main difficulty that participants had with the governments' support system for working age people with disabilities was its complexity. The types of programmes that a client is eligible for is dependant on a number of factors, including the type of benefit they are receiving, the length of time they have been receiving it, if they receive other monetary support (pension or private insurance) and what other programmes they have accessed in the past. For example to go on to the New Deal for Disabled People programme (considered a provider) an individual must have been on Incapacity Benefits for six month or more, once they leave this programme they will not be eligible for certain other programmes until a period of time as elapsed.

Information on retention

To determine if the tool would need to include different information for retention cases participants were asked about their experiences in this

situation. Three of the groups indicated that their experiences of dealing with retention issues were minor in comparison to return to work. The vocational rehabilitation specialists were split on this point with three of the participants having frequent involvement with retention. All of the accounts involving retention revolved around educating the employer about the effects that the client's disability may have on their job or the employer's duty to adhere to the Disability Discrimination Act. Other types of information given were about Access to Work and referrals to organisations that specialise in retention.

The information required by participants with regards to retention cases were similar to those of return to work, however the duty of the employer with respect to the DDA may be considered more urgent as the client is already an employee as opposed to a prospective employee. Additionally if the employee has only recently acquired a disability or health condition they may not be able to communicate what their additional needs are to an employer as readily as an individual that has had more time to adjust to their needs. This would indicate that the tool needs to contain information on what issues employers may expect to encounter based on the circumstances of other people with similar disabilities. As suggested by the following statement, failure to educate the employer is likely to result in problems for the client and possible dismissal:

> Vocational Rehabilitation Specialists, Female 4 – *'the few that I have had problems with in terms of their employer it seems to be that they have gone back to work after an accident and have not have had any input to assist them back into work so it has not been managed in any way so it is not been successful'.*

Information on dismissals

To determine how the tool could contribute to decreasing the incidence of unlawful dismissal, participants were asked about their experiences with this situation. Three of the groups discussed situations regarding dismissals of which they were aware, however the group that supported employers was not one of them so the employer's point of view was not represented. The issues that participants brought up revolved around employers apparently 'getting rid of' employees with disabilities by either making them redundant

or not renewing contracts so that they were not in a clear breach of the DDA. When participants had direct involvement with employers about these issues they concentrated their efforts on informing them of their duties to make adjustments and what adjustments could be made to accommodate the employee.

Types of disabilities

It had been established in section 3.12.3 of Study 1 as well as this section of Study 2, that information on the effects of disabilities on working were required by the stakeholders. To establish which disabilities were most prevalent and would therefore need to be included in the tool, participants were asked which disabilities they most frequently encountered in their jobs. All of the groups stated that mental health issues and musculo-skeletal impairments were the most common disabilities that they dealt with. The group of DEAs listed hearing and communications impairments in addition, and the vocational rehabilitation specialists identified people with a brain injury as an impairment with whom they frequently dealt. The employment support programme advisors supplied a much more extensive list of impairments that they frequently came into contact with including; Fibromyalgia, Aspergers, Dyslexia or Dyspraxia, Epilepsy, and people having had a stroke.

4.13.3 Ergonomics

This section of the focus group explored the level of knowledge and involvement that participants had with workplace solutions or reasonable adjustments. The purpose of this section was to determine if the stakeholder groups included in this study were responsible for delivering information on work solutions or if they referred clients onto other professionals to deal with this aspect of the return to work process.

Involvement with the adjustment process

To establish the level of involvement that the participants had with making workplace adjustments they were asked what their experience was with this aspect of the return to work process. Three of the groups stated that in most cases they would refer the client or the employer to Access to Work in order

to arrange for an assessment and any adjustments that their client would need. However both the DEAs and the vocational rehabilitation specialists revealed that they would inform the employer what was needed if the needs of the client were straightforward, inexpensive and an assessment was not necessary because the client was able to relay their requirements. However one of the DEAs pointed out that the newer advisors did not demonstrate this type of involvement, as they lacked the training necessary to provide this type of advice to employers.

The participant who worked in human resources (from the vocational rehabilitation specialist group) raised an issue that he had encountered concerning ergonomics recommendations. This concerned either employees requesting adjustments or ergonomics consultants recommending adjustments that the employer would consider to be excessive. This participant also expressed concern over bringing in outside consultants to do ergonomics assessments because, in past experiences, the employer received overly complicated reports which were not very practical. Other members of this group encouraged clients to ask their employers for adjustments, informing them that it was within their rights to do so.

The group of employment support programme advisors had a much higher level of involvement as their organisation had an in-house vocational assessment service. Additionally if they placed a client on a supported employment programme they would liaise with the employers about the adjustments that should be made.

Two of the groups, the employment support programme advisors and vocational rehabilitation specialists, were further asked to elaborate on their experiences with Access to Work. Both groups indicated that on the whole their experiences were positive and that the service was crucial for supporting some individuals with disabilities in the workplace. The only negative points raised were around the length of time that it might take for the process to be completed (varied between 6 weeks and several months)

and that at times their expectations of what the employer should provide were unrealistic.

Types of adjustments encountered

To determine the level of knowledge that the participants had on specific work solutions they were asked about the adjustments that they commonly encountered when working with their clients. The main type of adjustment that was encountered by the participants was organisational changes (e.g. flexible working schedules, task reallocation etc.). The main types of physical workplace changes that were identified were getting specialist office equipment, especially chairs, and making adjustments to the IT set-up including software and accessories. Supplying advice or guidance to the clients and employers, especially around awareness, was also mentioned as a key factor in successful return to work cases.

4.13.4 Tool design

To gain information on how the clients would want the tool to work they were asked what they thought should be included, how it should be presented and how often they would use it. The questions in this section were asked immediately after the participants were given a general description of the project, so the responses were made in context (refer to section *4.8.4 for details of project explanation)*.

Content

To gain a more detailed description of the user requirements for the content, participants were asked what information they thought should be included in a tool delivering information on disability and employment. All groups expressed a need for a tool that could be used to match up solutions with specific disabilities, i.e. to 'narrow down' the appropriate choices. Two groups explained a similar approach to the process that would meet their needs, generally this was to have a tool that could guide the user through the steps depending on the clients' needs. At each stage the tool would be able to inform the user what is available to support the client and what the potential subsequent steps would be, the following is an example of this:

> Employment support programme, Male 3 – *'I think it would be good to have almost a flow chart of what the process is and what is available within that process'.*

The Employer support group also raised some issues around the lack of awareness of employers and how that could be addressed:

> Female, 1 – *'I think that employers are just generally unaware of what is available to them and it is always about that they need to think about money, in actual fact one of the big fears is taking somebody on and it doesn't end up working, but Work Step would help with that, but you don't want to raise awareness around that because you don't want them to think that they are taking someone on in order to get free labour. I do think that there should be a website that is simple and easy to access and navigate around and find out what is available to them (employers)'.*

Specifically the types of information the participants wanted were; other organisations that can help, what financial support the client is entitled to, what the lead times are for funding, what solutions will work for a client depending on their disability, if there is a cost attached and what that cost would be. Participants also indicated that they would want information on employment law and which local businesses were "disability friendly".

This information, together with that established in Study 1, will inform the requirements for the content of the tool.

Delivery method

To establish how the tool should be presented, participants were asked about their preferred media type to deliver information, e.g. on-line, paper based, or service. All four of the groups strongly agreed that an on-line tool would be the most efficient, mainly because an online tool could be continually updated to provide the most current information. Additionally one of the groups raised the point that only an electronic source could hold the vast amount of information that the tool was likely to contain. Two of the groups mentioned the importance of the tool being easy to access and navigate. The following comments were made on aspects of how the participants would want an electronically based system to work:

DEAs, Female 2 – '*what would be a really nice feature is, you know how you can set our system so that it will tell you what is new since yesterday....ability to see what was new since it was last updated rather than having to troll through and notice that something has changed*'

Employment support programme, Female 1 –'*so somebody has got MS in their fingers what equipment would be available to them if they want to work in admin*'
Female, 2 – '*it almost needs to connect to an internet site that sort of has all this up to date information*'
Female 3 – '*yeah that is true with so much of the information it changes so rapidly*'

Three of the groups considered the use of a service (i.e. helpline) to be beneficial but two were concerned that with the introduction of the human element this would increase cost, decrease accuracy, and introduce delays. Only one group stated that they would find a paper based tool useful but it was in addition to the on-line and helpline versions.

Usage

On this point there was consensus with three of the groups, stating that if the tool was able to deliver the information that they wanted they would use it everyday. The fourth group was not asked this question as they had to end the focus group due to time constraints.

4.13.5 Issues encountered in profession

Participants were asked a very general question regarding what the most frustrating part of their job was, to explore whether there were other aspects of the participants' jobs that may have an effect on how the tool should be designed. The issues that were raised concerned the length of time it takes to obtain accurate information, especially on funding, benefits and partnership cooperation. The following excerpt provides an example of the issues participants face concerning the regulations around government programmes

Employment support programme, Female 1 – '*...benefit changes as well, so for examples we heard that on the 10th of April this year the Permitted Work forms have changed and we had all*

heard whispers of it through different sources but there was no official information available from Job Centre Plus on their website and if you rung them up they couldn't give you anything official. There were bits and pieces of information but there was nothing solid to follow and the rules really changed quite significantly and it was really important for the contracts that we were working on and we needed this information and I think we got it on the 12th of May officially so we got it a month late'.

Discussions around this question reiterated the need for the tool to deliver information that is up to date and accurate, indicating that the tool would need to incorporate a process for revising the content on a constant basis. The implications of this are twofold: how would the tool be maintained? and who would be responsible for the maintenance?

Recommendations

To determine if there were any suggestions that may contribute to the development of the tool, participants were asked if they had any recommendations on how to improve the issues they raised as a result of the previous question. All of the suggestions centred on improving the system of communication, so that participants were more aware of relevant information such as funding, benefits, programme details and organisations that offer support. The group of DEAs were very specific that they wanted to have this done through a tool that would be updated daily with the updates available to be viewed separately and with feedback on certain aspects of the content (e.g. providers or solutions) provided by users. However, this did raise some concerns from group members that information supplied by other users may not be accurate.

4.13.6 Interaction between group members

As recommended by Catterall & Maclaran (1997), throughout the focus groups the researcher was conscious of any notable interactions between the group members that could provide additional insight into the needs of the stakeholders. The groups of DEAs and employment support programme advisors tended to agree on the points raised by other group members, giving the impression that there was a consensus in the answers given. The group of vocational rehabilitation specialists were from varied backgrounds and therefore at times gave different answers to questions. The group of

employer /employment support programme advisors were a small group and gave answers dependant on their job duties.

An interesting situation was observed in the three larger groups (excluding the employer/employment support programme advisors) when a question was asked about from whom or where they got their information, other group members wrote down notes about the answers given. For example when the employment support programme advisors were asked about sources that they go to for information, one of the members discussed a site that provides information on occupation descriptions. Many of the other members asked for more information on this and wrote down the site information. This behaviour was seen several times throughout conducting the focus groups and implied that knowledge on specific topics was not necessarily uniform throughout the groups and that there was a need for some form of knowledge sharing tool.

4.14 Discussion

This study included four groups of employment intermediaries or vocational rehabilitation professionals that deal almost solely with people with disabilities seeking support in employment, however the groups were chosen with input from the sponsors of this research which may have had an effect on the data that were collected. There was a strong level of agreement between the groups that participated which indicated that the information supplied was applicable to this group as a whole.

Including the stakeholder groups of employers and doctors would most likely have added some data that were not gathered from the groups that did participate but due to time constraints and the requirements of the sponsors it was not possible to do so. Based on previous research conducted on the needs of employer and GP stakeholder groups, it is believed that the participants in this study were the best sources for providing details on what type of information should be included in the tool being investigated in this research, as they work more closely with people with disabilities regarding issues of employment (Hutton, 2006; Beaumont, 2003).

4.14.1 Need for an improved information delivery system

Several questions in the focus groups highlighted the participants need for additional or more accurate information than was currently available. This point was especially apparent when participants were asked how they usually gain information to help support their clients, to which all the groups stated that doing independent searches on the internet was a major source of information to them. Although participants indicated that the information they needed may be available through some source, it was not easily obtainable nor was it obtained through a single source. From this question it was also revealed that experience and internal training were responsible for the participants' knowledge base in two of the groups. Although this manner of obtaining information is ideal, not all of the groups had access to it and one of the groups that did indicated that their access was declining. To ensure that professionals that are responsible for supporting employees with disabilities have comprehensive and current information to supply to their clients, some of the participants implied that using a universal information source would eliminate human error or bias. This trend toward electronic databases of information has been adopted by the government in its new occupational health and safety programmes, indicating that knowledge management systems are valuable and useful to the public (Hilton & Lewis, 2007; Thompson, 2005).

To substantiate this finding when participants were asked to make recommendations on how to improve the current support system, for people with disabilities regarding employment, the majority of the suggestions focused on developing a better system for supplying information especially on government funding, benefits, and employment support programmes. These findings correspond with the research done that have shown an emphasis needs to be placed on stakeholders sign posting to vocational rehabilitation services in order to reduce the number of people receiving Incapacity Benefits (Robinson, 2000; Nice & Thornton, 2004). The data collected from the participants also revealed that the return to work process, especially relating to government systems, is overly complicated and difficult to navigate, which was also established in the literature (Disability Rights Commission, 2006; Thompson, 2005).

4.14.2 Stakeholders roles in the return to work process

The data collected from Study 2 verified the position and role of each of the stakeholder groups as concluded in Study 1. The data collected on where the participants received clients from suggest that each of the stakeholder groups previously identified were responsible for making referrals, however some were more active than others. The government stakeholder group most frequently passed on details about employment intermediaries or vocational rehabilitation professionals to their clients and although GPs were credited with making referrals the participants stated that this was not the norm and should be improved. Participants also stated that employers did have some involvement but when in the process this occurred was dependant on whether it was a retention or new employment situation. A summary of the referral sequence involving the stakeholder groups, along with the information typically provided is presented in Figure 4.2.

	Group	Information exchanged
Early ↓	GPs	Signposting to allied medical professionals or government programmes.
	Employer	Retention cases – contact government agencies for support.
	Allied medical professionals	Provide information on government agencies that offer support and making adjustments to workplace.
	Government	Provide information on government support available, employee rights and volunteer organisations.
	Employer	New employees – contact government agencies for support.
Late	Volunteer organisations	Provide information on support available through volunteer programmes and government agencies.

Figure 4.2: Stakeholder involvement in return to work process

The main connection that was observed between the stakeholders was the referrals from all groups to various government agencies. This finding shows the crucial role that the government stakeholder group plays in supporting people with disabilities in employment and the need to disseminate information on assistance available. This requirement is verified by the results of Study 1, which found information on government programmes the area participants found most deficient. This is substantiated through the research produced by the government highlighting the need to improve their services and signposting to services for people with disabilities (Hutton, 2006; Nice and Thornton, 2004; Dixon and Warrener 2008).

4.14.3 User requirements

The data collected from the focus groups uncovered several topics that participants would need to be included in the tool in order for it to be effective. This includes supplying information on general subjects such as disability awareness but also organisational adaptations and specific types of physical adjustments. This range of information needs was also established in section 3.13.3 of Study 1, confirming that in order for the tool to meet the needs of the users a range of information must be included. This could span from information which applies to most clients i.e. content and implications of the DDA, to very specific information that would only be applicable to a small number of clients i.e. software to support only certain disabilities. Specifically the data from this study revealed that there is a definite requirement for the tool to contain information on DWP's rules and regulations related to various benefits, funding and support programmes.

This study also uncovered that the stakeholders involved in supporting people with disabilities require a much higher level of detail in the information they require compared to the people with disabilities themselves. The possible reason for this difference is that the employees with disabilities are only interested in the information that is relevant to them and may not be concerned with details such as eligibility, lead times or duty under the DDA. However the stakeholders that are responsible for supporting the employees would need to know detailed information to be able to make informed decisions about what the options are or the best

course of action for clients (employees), furthermore the circumstances of each client will vary expanding the amount of knowledge needed.

Several suggestions were made concerning the design of the tool, the main one being that it should be an electronic on-line system so that frequent updates could be made to the content. The reasoning behind this was that participants had difficulty keeping up with many of the topics that are constantly changing, examples of this were the rules and regulations around DWP programmes and funding, and new innovations in assistive technology. The method for obtaining up to date and accurate information on these subjects would need further consideration as even the DWP employees (DEAs) indicated that they had extensive difficulties with accessing accurate information on DWP programmes. In addition to this changes in technology would need to be tracked through the developers and suppliers to ensure that product details are complete and it is possible to acquire the equipment. Another important suggestion that was made has implications for the interface of the tool and how the user would locate the information they need efficiently. Essentially by designing the tool to resemble a flowchart that presents information from general to more specific and allows the user to enter the system at the appropriate juncture, depending on the clients needs, it could decrease the amount of time needed for the user to locate the pertinent information. This arrangement would also allow the user to identify any steps that might come before or after the particular intervention they are investigating, ensuring that clients have received a comprehensive explanation of what is available to support them throughout the return to work process.

The cyclic referral pattern identified in the data collected in the focus groups can have an adverse effect on the time taken to implement effective return to work strategies. The provision of information discussed in this thesis could help employment intermediaries and vocational rehabilitation professions to more accurately and quickly identify the appropriate route that a client needs, reducing the time lost by poor information provision and incorrect referrals.

A very interesting point that was discussed by the participants was the use of knowledge sharing practices or networks. Although all of the groups answered this question differently a definite theme emerged that participants expanded their knowledge base through contact with other professionals involved in the return to work process. The most robust data came from the group that explained how they regularly met with other stakeholders in the area to identify how they could work together to support clients in the return to work process. This model has potential for application to on-line discussion groups that could be formed based on demographic location, where members can supply information on their organisations and what they are able to offer to clients. This type of knowledge sharing network would allow other users to quickly identify who is available in their area and how they can work together to support their clients.

4.15 Critique of methodology

Purposive sampling was utilised for recruiting participants that matched the sponsors target customer for the tool being researched in this thesis, however this type of sampling can limit the scope of data collected by restricting the type of participants that are included in the groups. There were however representatives of all the commonly encountered professionals identified in Study 1 with the exception of doctors and employers. These groups were not included in the study because they where not considered primary users of the tool and an extensive amount of research was already available on the needs of these two groups of stakeholders (e.g. Sainsbury & Davidson, 2006; Beaumont, 2003; Smith, A., 2002; Thompson, 2005; Thornton & Corden, 2001; Kelly et al., 2005), compared to the employment intermediaries or vocational rehabilitation professionals.

The approach of organising the focus groups to take place when the participants were previously scheduled to meet for other purposes was successful for ensuring a good turnout, however it also restricted the time allowed for the researcher to conduct the interview. In three of the groups this did not affect the interview schedule as there was ample time provided but for one group it prevented the researcher from collecting data on the last

theme. The number of participants in three of the groups, seven or eight, was considered optimal for collecting data (Maguire, 2003), however one of the groups was smaller than recommended and may have limited the quality of the data collected from that group. It is recommended that more than one focus group be conducted to allow the researcher to compare the results of the data obtained and to draw out themes that exist throughout the groups (Hartman, J., 2004; Butterfoss et al., 2000; Kitzinger, J., 1995). In this study four groups were included in the study and a satisfactory level of saturation was reached in the data that was collected but it is always difficult to determine if additional information would have been collected from conducting more focus groups.

4.16 Conclusions

The findings of this study showed that there is a need for a tool to deliver accurate and comprehensive information to stakeholders in the return to work process. Providing this information to users would allow a greater dissemination of knowledge between stakeholders, decreasing duplication of effort and searching time as well as ensuring that clients have the most complete picture of the support that is available to them.

A comparison of the requirements of the participants in Study 1 and Study 2 established that the information needs of employment intermediaries and vocational rehabilitation professionals are more extensive and specific than people with disabilities. The most obvious reason for this is that the participants in this study are responsible for supporting a wide variety of people, each of which would have different circumstances.

Potential users of the tool could have diverse backgrounds or levels of experience, therefore the tool would need to be easy to use and cover all information areas e.g. legal rights, government support, volunteer organisations, medical info, limitations caused by condition, work solutions, etc. Conversely the diversity of the users could be used to an advantage by integrating knowledge sharing techniques (e.g. discussion forums, or system similar to Wikipedia) into the tool as a way to gather information on an ongoing basis.

Chapter 5: AbilityMatch assessments with employment support programme participants

5.1 Introduction

An important aspect of the return to work process for people with disabilities is a thorough assessment of the task-related abilities that they possess as well as those with which they may have limitations with. As outlined in section 2.1.4 this type of assessment should be part of any vocational rehabilitation strategy to ensure that there is a satisfactory match between the abilities of the individual and the requirements of a job (Kearns, 1998; Granger, 1984; Paton, 2003; Purdon et al., 2006). However as is stressed in the Disability Discrimination Act there is a duty for employers to make adjustments, where reasonable, in order to compensate for mismatches that exist between the employee's abilities and the job's requirements. To make these adjustments the employer or other stakeholders in the return to work process must have access to information on what these adjustments could be and how to go about implementing them. The difficulty with developing a tool that can deliver this type of information is the complexity of each situation that could be encountered. This complexity is caused by the number of variables that are in play e.g. type of disability, limitations caused by the disability, tasks required by the job, effect of limitations on the tasks, as well as the diversity of each of these variables. The best way to ensure that the tool would accurately take into account these variables was to research real assessments undertaken with people with a range of disabilities.

The purpose of the overall funded project undertaken for this research was to develop a tool to deliver work solutions information for people with disabilities in employment and that could work in conjunction with the existing AbilityMatch assessment. The scope of this study was to use the AbilityMatch assessment system in a pilot employment support programme

called Switch on to Success (SOTS) - Matching Abilities With Jobs (MAWJ). In order to receive sponsorship for the project the researcher was to become a team member charged with the duty of carrying out AbilityMatch assessments for each individual signed onto the programme. This was done to gather information about the participant's task related capabilities in order to inform the rest of the team of what jobs would be appropriate for the participant and where adjustments may be needed.

It was originally envisioned that the researcher would support the participants identified as having a disability or health condition throughout the return to work process. As AbilityMatch was originally designed for people with disabilities this process was initiated with the completion of the AbilityMatch assessment, which was then translated into a summary report given to the participant's personal advisor. The researcher was then contacted by the advisor to discuss potential jobs and whether the participant's functional limitations identified by the assessment would affect their ability to perform the tasks associated with the jobs. The researcher then offered guidance on which tasks were likely to need adjustment and how the employer could carry out these adjustments. The process up to this point was completed according to the original proposal.

The next phase of the process was to work with the employers that the participants were placed with, in order to make necessary workplace adjustments or offer advice and guidance. Subsequent to this was a scheduled follow-up phase where participants would be contacted to gather data on how well the adjustments worked and if they had any encountered any barriers that were not predicted through the assessment phase. These data would be used to supply content to the tool and help identify the issues associated with making adjustments in the workplace. However the researcher was not able to complete the last two phases of the process for two reasons; a large percentage of the participants with disabilities did not enter employment and those that did have a disability and entered employment wanted to avoid highlighting their condition to their future employer. Therefore this study only presents the data gathered through the first phase of the process, the assessment phase.

Funding

This programme was proposed in response to an Invitation to Tender set forth by the South East Region of the UK. Co-financing between the European Social Fund and Jobcentre Plus was available for successful bids providing an innovative new programme to be offered under the UK governments 'New Deal' umbrella. This funding was put forward as part of a government initiative to explore different approaches to helping individuals receiving long-term unemployment benefits back into employment.

The Project

The Switch on to Success (SOTS) - Matching Abilities with Jobs (MAWJ) programme was developed to give additional and specialised support to particular individuals seeking employment. Specifically it was designed to meet the needs of participants facing a competitive disadvantage in the labour market. This could be due to a health condition, lack of skills or education, outside obligations or constraints, etc. which has ultimately resulted in an extended period (6 months or more) of unemployment. In order to overcome any barriers that a participant may be facing it was believed that a full assessment of the individual's situation would first need to be conducted. This was to be carried out by using several approaches that would cover all aspects of the participant's current situation. The programme sought to identify participants' barriers to work and help overcome them by using the following approaches:

- AbilityMatch assessment – See section 5.7.
- The BMEM (Birkin Meehan Employability Measure) Work Readiness Assessment – Developed by Occupational Psychologists to quantitatively measure an individual's attitudes towards work and their ability to participate in the labour force.
- Adult Directions Career Counselling Software – An evaluation system designed and marketed by Cascaid (www.cascaid.co.uk) which is used to incorporate an individual's likes and dislikes, skills and educational level, generating a list of appropriate career options based on their responses.

- Occupational Psychologist (OP) counselling – The purpose of the OP was to provide in-depth counselling for participants that had exhibited psychological barriers to work. The OP conducted an initial interview with each participant upon entering the programme, examples of typical barriers encountered were: low self esteem and confidence, problems with self efficacy (i.e. belief in ability to do a job), issues with authority, depression or anxiety, negative past experiences with work, etc. The role of the OP was to identify these barriers, leading to a better understanding of the reasons why the individual was having difficulty in gaining employment, and help the participant overcome them.
- Ergonomics consultation – Ergonomics guidance was provided to participants who indicated limitations which might affect their ability to carry out the work tasks necessary for their preferred careers (as concluded by the AbilityMatch assessment). This guidance came in several forms including: identification of training needs, identification of support services, suggestions for coping strategies, work place assessments or adjustments, and recommendations for the acquisition of assistive technology or equipment, etc.
- Personal Support Manager (PSM) assistance – All participants were assigned a PSM who remained with them for the duration of the programme. The PSMs were responsible for carrying out specific tasks with the participants; these included: skills assessments, job goal evaluations, production of a CV, organising interviews, preparation for interviews, conducting in-work calculations, etc. PSMs served as the main point of contact for the participants and helped them to stay focused on their job goals.

The targets of the programme were to recruit a total of 300 participants over a period of 3 years; with minimum outcomes of 30% of the participants entering into a training programme, 30% into employment, and 40% remaining on benefits. The main purpose of the SOTS-MAWJ programme was to determine if an integrated assessment approach, such as this one, could improve the participants' successful transition from long-term unemployment to re-employment. From the findings, recommendations were made on the appropriate use of programme funding and staffing for this

particular population. These findings were based on the success of the programme participants both on a qualitative and quantitative level. The project was completed in March of 2007 with a final report being submitted to JobCentre Plus in July of 2007.

The funding allocated to the AbilityMatch aspect of the project was to be used for the purpose of assessing the participants of the project as well as the development of the solutions database. Based on the feasibility research mentioned in chapter 1, section 1.3 it was determined that by using the system with participants on a regular basis the researcher would be able to identify the information that is needed to effectively implement work solutions, then collate all the information into a database. Additionally the researcher would evaluate the effectiveness of AbilityMatch as an assessment tool within an unemployment programme of this kind.

5.2 Study 3 aims

The key aims of this study were:

1. To further validate the AbilityMatch assessment system as a capability assessment tool.
2. To establish trends in the assessment data which could be used to identify the limitation of tasks associated with specific disabilities or impairments.
3. To define an appropriate structure and taxonomy of the information delivery tool based on the data collected from the AbilityMatch assessments.

5.3 Rationale for conducting assessments with employment support programme participants

To develop the tool in a way that would ensure it was compatible with the existing AbilityMatch assessment system, it was necessary to use the system to conduct a substantial number of assessments to develop an accurate classification structure based on the output of the assessments. In addition to the data obtained from the assessments it was also necessary to gather some background information on the participants for the purpose of gaining a more accurate representation of the other variables that could

affect their ability to sustain employment. A combination of data taken from the initial interview records and the assessments allowed the researcher to obtain a wide range of case studies that were used to guide the development of the tool based on actual situations.

5.4 Methods

This study used a combination of the grounded theory approach and action research, each will be discussed respectively. The grounded theory approach was used throughout the three years of the project by inductively identifying themes that were 'grounded' in the data as it was accumulated (Miles & Huberman, 1994; Berg, 2007). Data were collected through a combination of document review and assessments conducted using the AbilityMatch assessment system. For each of the 300 participants that entered the programme, in addition to the AbilityMatch assessment data, the following data were obtained from initial interviews carried out by the MAWJ programmes' occupational psychologist: name, age, type of benefit in receipt of, number of years unemployed, education and qualifications, self-reported major barriers to work, and health specifics. These data were used to determine which of the 300 participants would be suitable participants for the study based on presence of a disability or health condition (see section 5.5 for more details).

This combination of data allowed the researcher to determine if there were any similarities or 'themes' that emerged from the sample as a whole as well as between cases that had common disabilities or health conditions. By developing categories of codes throughout data collection process and collecting to a point of saturation it was possible to establish links between the categories (or codes) that were then used to test against a hypothesis (Strauss & Corbin, 1998; Robson, 2002). In this research the assumption was that specific disabilities or health conditions would link to specific impairments and then to specific functional limitations.

The second method used in this study was based on the theory of Action Research, because the researcher was directly involved in the process and the main goal was to initiate some measure of improvement (Robson, 2002;

Miles & Huberman, 1994). Within the MAWJ programme the goal of the researcher was to increase the success rate of the participants gaining employment by identifying their barriers to work and working with them to overcome these barriers. This method is commonly used to make recommendations on intervention programmes within the domain of social research particularly in health and social care (Blaxter et al., 2001) and employs what is know as a 'spiral process' (Berg, 2007) where data are collected, analysed and then shared with the participants.

5.5 Sampling

The sample for this study was the participants of the SOTS – MAWJ employment support programme that revealed they had a disability or health condition. These participants were recruited onto the programme from the Hampshire area by the project staff at regular intervals between March of 2004 and February 2007. Over the course of this time there were 300 participants recruited in total, all of which were assessed using the AbilityMatch assessment system, however only 290 full sets of data were obtained for analysis. The only criteria for entry into the programme was that participants must have been unemployed for six months or more and been in receipt of one or more benefit supplied by JobCentre Plus. Due to the fact that the programme was open to all types of benefit recipients, not just Incapacity Benefits, there was only a percentage of the total number of participants that were expected to have a disability or health condition.

The programme sponsors outlined targets for the number of participants recruited from each benefit type; the target for disability related benefits (Incapacity Benefits or Disability Living Allowance) was 30% or at least 100 people. The percentage of participants in this category that actually entered the programme was 24% or 73 people. Although there were was not a high percentage of participants that were medically classified as disabled (a medical statement is necessary for receiving Incapacity Benefits or Disability Living Allowance) the majority of participants on the Job Seekers Allowance benefit and Income Support benefit reported that they had some disability or health condition that limited the type of work that they could do or was a major barrier to their employment. The sample for this study was therefore

composed of any participant that declared they had a disability or health condition, regardless of the benefit they were receiving. The justification for this was that self reported limitations have been shown in the literature to be as accurate in predicting work outcomes as medical assessments (Corkett et al., 2005; O'Fallon & Hillson, 2005; Burkhauser et al., 2002). Figure 5.1 presents the breakdown of the study participants.

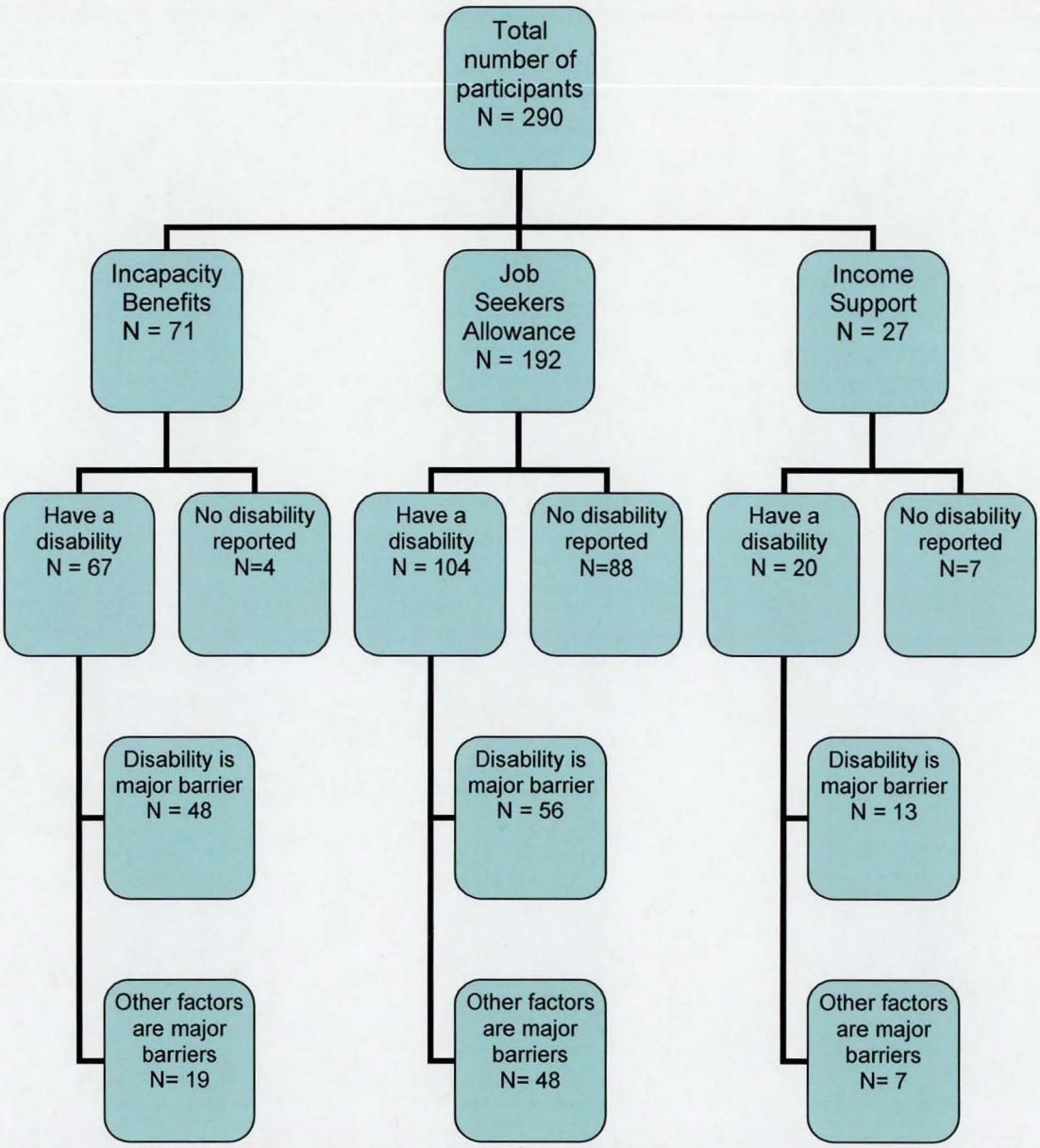

Figure 5.1: Distribution of sample by benefit and disability

The percentage of participants used for the sample was 66% (n=191) of the total (N=290). The composition of this sample by benefit type was: 23% on Incapacity Benefit (n=67), 36% on Job Seekers Allowance (n=104) and 7% on Income Support (n=20). The data collected on whether the disability or

health condition was a major barrier or not is used in the analysis but did not alter the sample.

5.6 Piloting

A piloting phase was not carried out for this study as the deliverables for this aspect of the programme were set forth by the terms of the funding body. The contract stated that each of the participants that entered the programme were to complete an AbilityMatch assessment, using the AbilityMatch software.

5.7 Design of assessments

AbilityMatch is a computerised assessment system designed to gather information on an individual's ability to perform work related tasks. It is an assisted self-assessment, designed to be used with a trained professional administering the assessment and the person being assessed answering questions about their ability to perform specific work related tasks. At the time of the study the assessment contained 78 questions, separated into seven segments; 1) hearing and communication, 2) vision and perception, 3) posture, 4) the workplace, 5) legs, 6) arms, and 7) cognition. Each of the questions within these segments were presented on the computer screen separately, with the assessment segment and question at the top, the answers in the middle and a photo depicting the task being addressed in the lower right hand corner. A photo of the task was included on the screen to offer a visual reinforcement to individuals with cognitive or hearing impairments (see Figure 5.2). The wording of the questions was purposely designed to avoid having the person being assessed feel that there was a problem with them, but instead focused on the task, e.g. 'If a job involved driving, could you do that?' Rather than 'Do you have a problem with driving?'. This also elicited positive responses from the participants if they were able to do a task.

In its present form the software is comprised of three aspects; 1) the Person Ability Assessment, 2) the Job Activity Assessment, and 3) the Match Report. The three aspects of the software will be presented separately to explain the principles behind the assessment.

1. Person Ability Assessment – This is a series of task related questions that are directed at assessing the abilities and limitations of an individual. As stated above, there are seven segments containing 78 questions covering a range of capabilities that may be required to carry out work tasks. All questions are worded in the same non-confrontational style, for example "If a job involved X (e.g. distinguishing colours, lifting your arms overhead, working in isolation, etc.) could you do that?" For each question that is posed, the individual has the choice of three answers:
   - "Yes" i.e. they have no difficulty with the task.
   - "Yes but..." which allows them to choose from a list of common responses i.e. they can do the task but not for very long, very fast, by themselves etc. Or they can personalize their own answer by selecting 'other' and providing an explanation in the notes field.
   - "No" i.e. they are completely unable to perform the task.

The second of the possible responses, 'Yes but' was a key feature of the assessment system as it allowed the researcher to explore the context of why the person has a limited ability to perform the task and to what extent. This was done by offering a list of common responses or allowing the person being assessed to give details if none of the common answers could accurately describe the specific circumstances or context of why the person had a limited ability to perform the task. For unique situations they were prompted to give details in their own words and the answer was entered into the notes field. Additionally if the person made reference to strategies they used or adjustments they made to help compensate for the limitation this information was entered into the solutions field. Figure 5.2 shows an example of an Ability Assessment question as it appears in the software. (See Appendix J for a full list of questions).

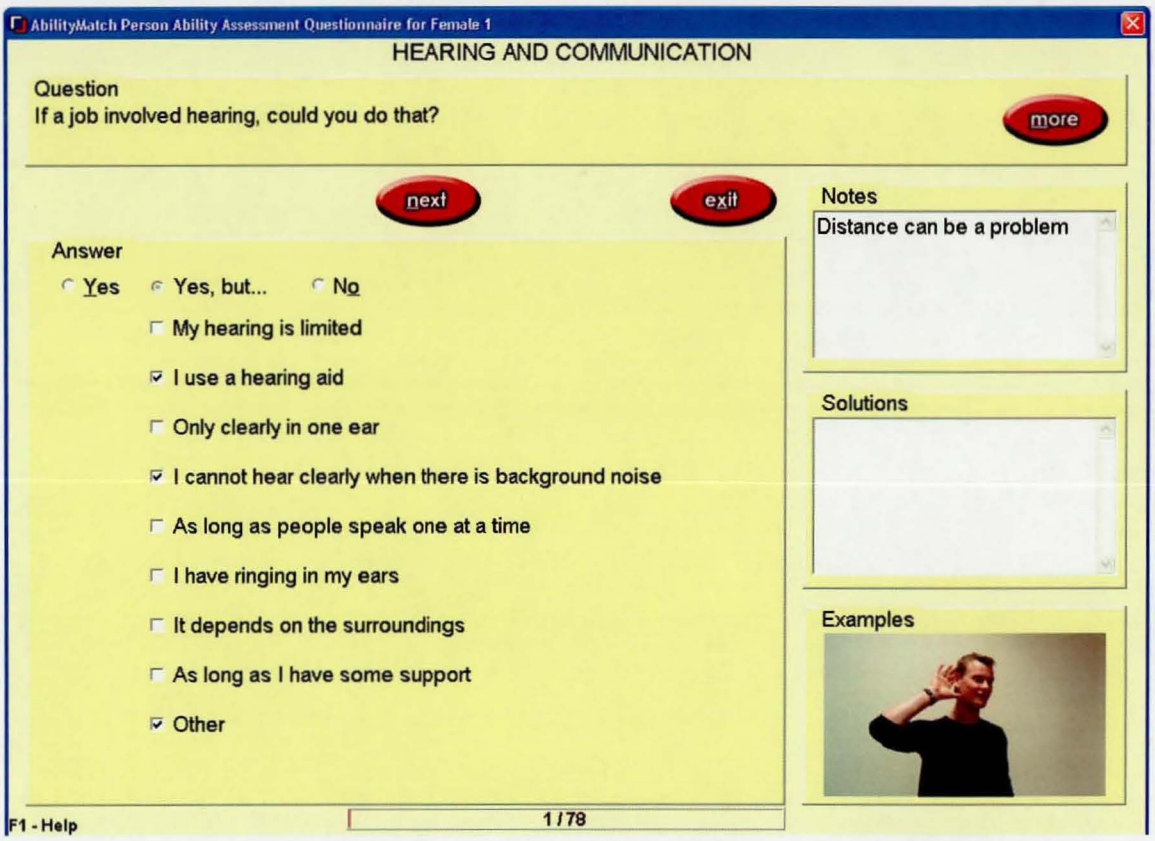

Figure 5.2: Example of Ability Assessment question

2. Job Activity Assessment – The questions in this assessment directly correspond to those in the Ability Assessment but are designed to analyse the tasks required for a specific job. Questions are worded "Does the job involve X (eg. distinguishing colours, lifting your arms overhead, working in isolation, etc.), to which the following answers can be selected:
    - "No requirement"
    - "Some requirement"
    - "Major requirement"

Figure 5.3 presents an example of an Ability Assessment question as it appears in the software.

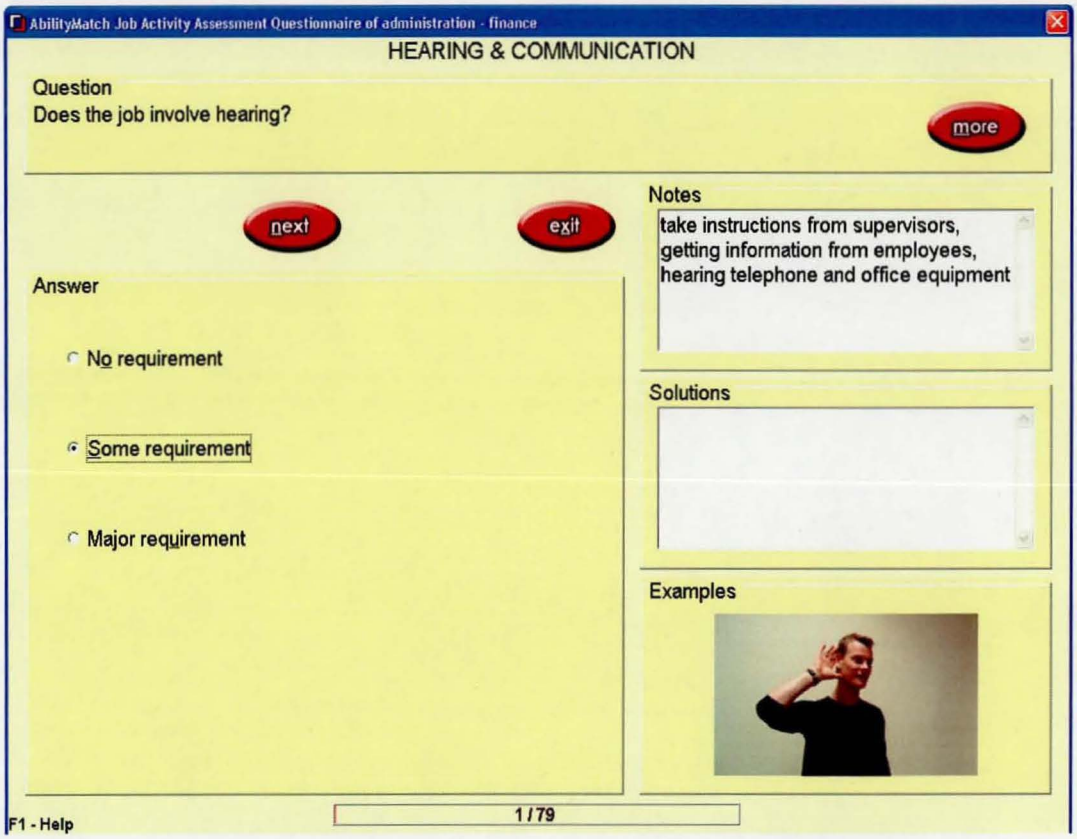

Figure 5.3: Example of Activity Assessment question

3. Match Report – Selecting 'Match Report' produces a document that merges the results of the two previous lists, using an algorithm, indicating where there may be mismatches between the tasks required to perform the job and the abilities of the individual. The matches are ranked under the headings of 'Good Matches', 'Simple Resolutions', or 'Creative Resolutions'.

Table 5.1 summaries the relationship between the responses from the Person Ability Assessment and the Job Activity Assessment as it relates to the Match Report.

Table 5.1: Relationship between Person Ability Assessment and Job Activity Assessment to the Match report

Person Ability Assessment	Job Activity Assessment	Match Report
Yes	No requirement	Good match
	Some requirement	Good match
	Major requirement	Good match
Yes but...	No requirement	Good match
	Some requirement	Simple resolution
	Major requirement	Simple resolution
No	No requirement	Good match
	Some requirement	Simple resolution
	Major requirement	Creative resolution

- 'Good matches' are based on one of two scenarios; either the person is able to do the task (answered 'yes' to Ability Assessment question) and therefore all three degrees of job requirement are acceptable, or the task is not required by the job and consequently the persons ability level to do the task is irrelevant. For this ranking no work solutions would need to be considered.
- 'Simple resolutions' are based on one of two scenarios; either the person has indicated that they are able to do the task required but with some limitation (Yes, but ...) and the job does require it to 'some' or a 'major' degree, or the task is only required to 'some' degree and the individual has indicated that they have some limitation with the task or are unable to do the task. Essentially this ranking indicates where some minor work solution may need to be introduced in order for the individual to still do the job.
- 'Creative resolutions' appears when the individual has answered "No" to an Ability Assessment question (unable to do the task) and the Activity Assessment has indicated that it is a major task requirement of the job. For this ranking substantial consideration will need to be given to work solutions, requiring some creativity to resolve the mismatch between the job and the worker.

Figure 5.4 presents an example of a Match Report as it appears in the software:

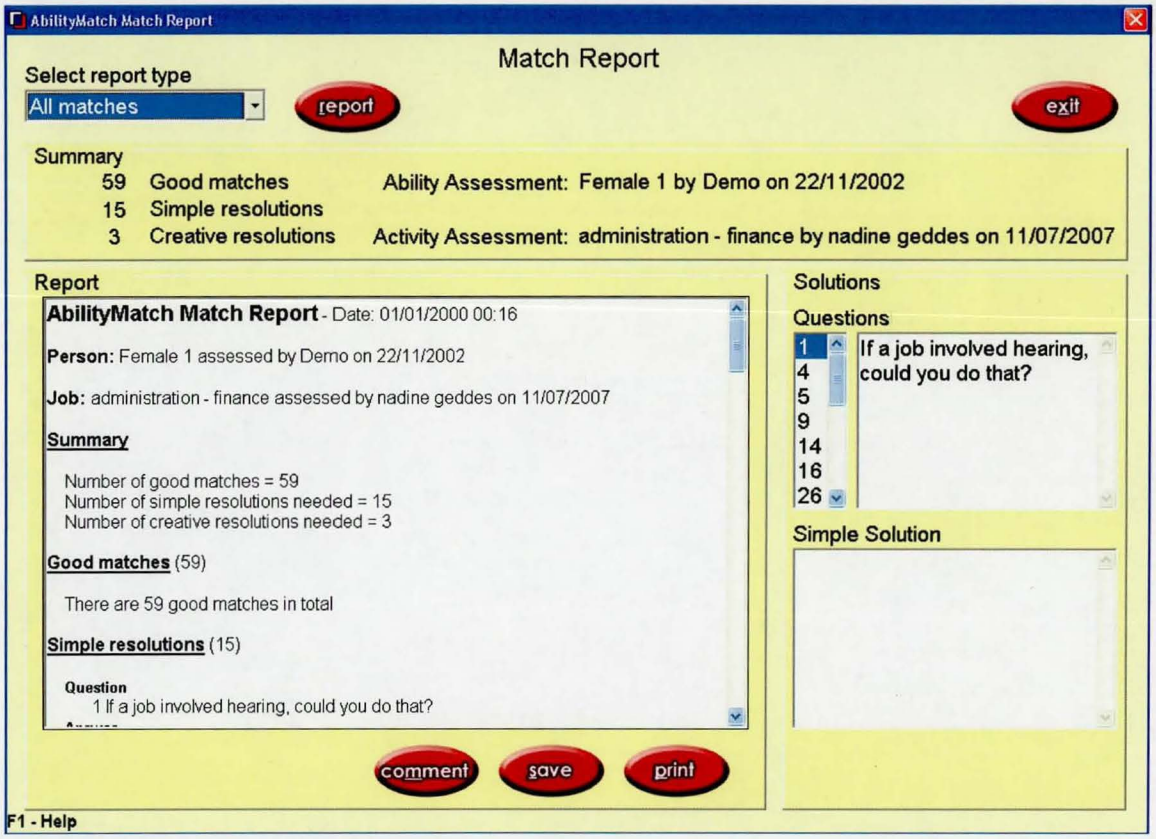

Figure 5.4: Example of Match Report

As explained in section 5.1 only the Person Ability Assessments were conducted with the participants, these assessments therefore produced a report that outlined all of the limitations that the participant had as opposed to just those that would be related to a specific job. The reason for this was that it was not known what job the participant may undertake in the future so all of the tasks had to be considered. This also allowed the researcher to determine which tasks were associated with specific disabilities or health conditions regardless of tasks required for a particular job.

5.8 Ethical considerations

Ethical approval was granted by Loughborough University. It was not necessary to obtain a consent form from each of the participants as they signed a waiver upon entry to the SOTS - MAWJ programme, which covered the use of personal details for research purposes. All data that were collected for this study were assigned numbers in order to ensure that

participants remained anonymous. Additionally all data were stored on a university issued laptop which was password protected.

5.9 Equipment

The assessments were conducted on a laptop computer using the AbilityMatch assessment software. The reports were summarised into Word documents using Microsoft software and attached to emails that were sent to the SOTS - MAWJ personal advisors.

5.10 Assessment procedure

Participants were initially interviewed by the SOTS - MAWJ occupational psychologist to determine if the programme was appropriate for their needs; during this time the participants were asked the screening questions which included: name, age, date of birth, type of benefit they were receiving, how long they had been unemployed, what their education and skills were, what they felt were their major barriers to work and if they had any health problems. If the participant signed onto the SOTS - MAWJ programme they were given an induction date. The induction days were held approximately once a month with 5-15 participants attending each time.

During the inductions the participants took part in a number of exercises developed by the SOTS - MAWJ team to help narrow down their job goals and encourage them to start job searching. One of the exercises they participated in was the completion of the AbilityMatch assessment, which was conducted by the researcher in a private meeting room to ensure that sensitive subjects were not avoided due to the possibility of people being able to overhear the assessment. Once all of the participants were assessed the researcher reviewed the reports and produced summaries to be used as guidance for the personal advisors. In some cases when a job was identified for a participant the personal advisor consulted with the researcher to discuss details of how the participant's disability or health condition may affect the job and what could be done about it.

5.11 Data analysis

Data were reviewed and assigned codes based on two classification systems, the primary and secondary codes were designated according to the World Health Organisation's International Classification of Functioning, Disability and Health (World Health Organisation, 2002). The first level, or primary codes, noted the participant's health condition, the secondary codes were assigned to the impairments resulting from the primary code. The tertiary codes signified the tasks affected by the secondary codes (impairments), which were obtained by the AbilityMatch assessment system. Also included with the tertiary codes was the functional limitation associated with the tasks, giving the context of the limitation. This coding system formed the basis for the classification structure to be used in the development of the tool that would link in with the existing AbilityMatch assessment system. This was done by using the AbilityMatch questions as the tertiary codes, thus ensuring that the categories would match the original assessment system. An example of this structure is presented below in Figure 5.5.

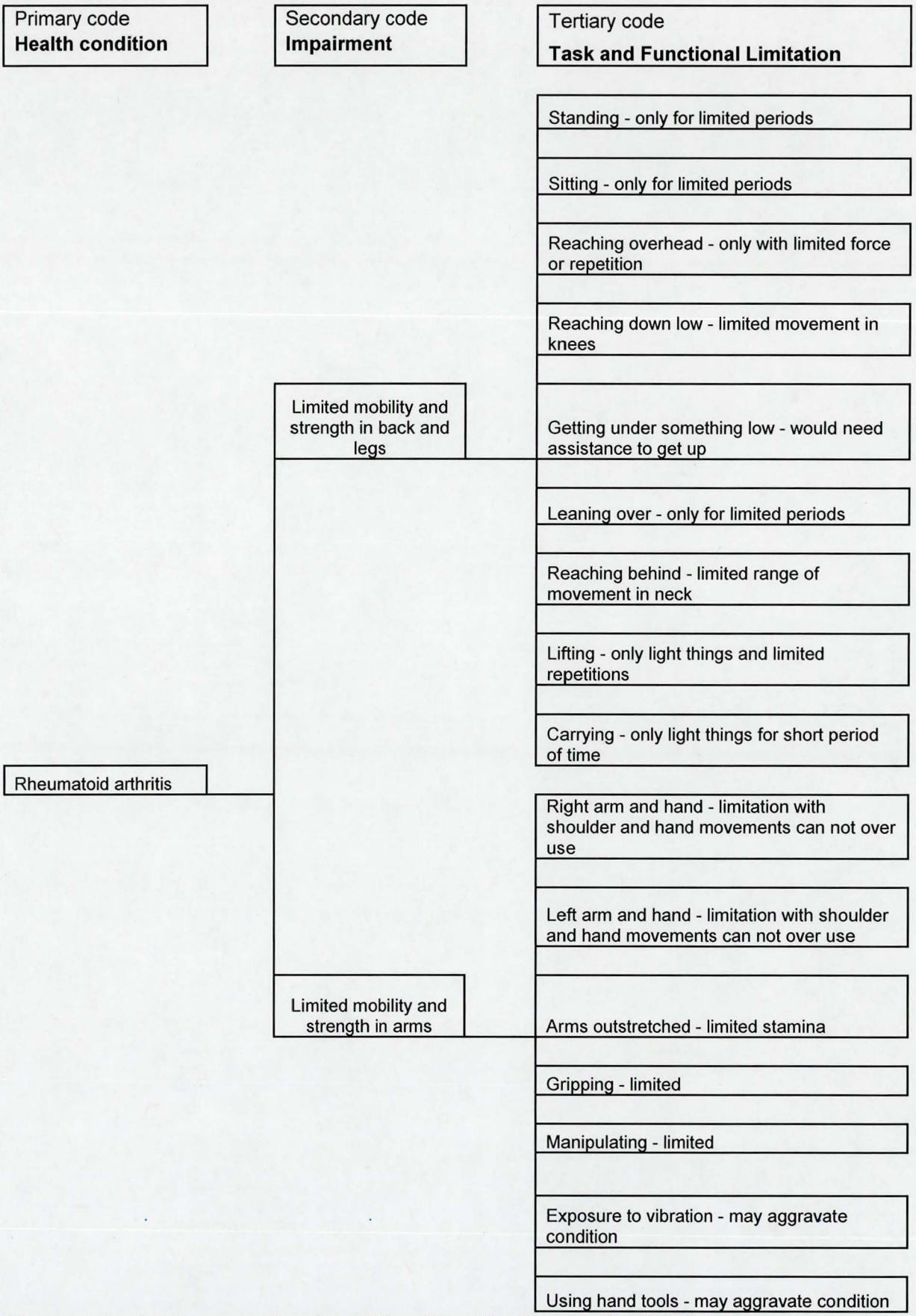

Figure 5.5: Coding tree for disability classification and related tasks

5.12 Results

From the 290 participants enrolled in the SOTS-MAWJ programme only 191 had a disability or health condition. These participants form the data set for analysis in the following sections. The first section 5.12.1, presents background data on the participants that were taken from the initial interview records. The second section 5.12.2 presents the data obtained from the AbilityMatch assessments.

5.12.1 Background of participants

Background data on the participants, that were taken from the initial interview records, were used to establish if the sample had an acceptable distribution for variables such as: gender, age, type of disability, onset of disability, and education levels obtained. A frequency analysis was performed on data for each of the variables listed above and where comparison data on the general population of working age people with disabilities were available the sample data were compared. It was important to establish these comparisons to ensure that the sample group were representative of the diversity of this population.

Gender

The gender distribution of the sample was Male = 64% (n=123), Female = 36% (n=68). Comparing this to the 2001 Labour Force Survey (Smith & Twomey, 2002) the population of disabled people of working age in Britain was Male = 51% (n=3.5 million) and Female = 48% (n=3.3 million).

Age

The age of the participants were separated to correspond to those in the LFS (Smith & Twomey, 2002); 16-24, 25-34, 35-49, 50-64. The results for the age and gender of the sample are outlined in Table 5.2.

Table 5.2: Age and gender of SOTS – MAWJ sample

Age category	Total number of participants	Number of male and female participants
16-24	21 (11%)	(M=14, F=7)
25-34	37 (19%)	(M=25, F=12)
35-49	81 (42%)	(M=50, F=31)
50-64	52 (27%)	(M=34, F=18)
Total	**191**	**M=123, F=68**

Figure 5.6 compares the distribution of the age and gender of the sample participants to the overall population of 'People of working age with disabilities by age group and sex' as presented in the LFS (Smith & Twomey, 2002).

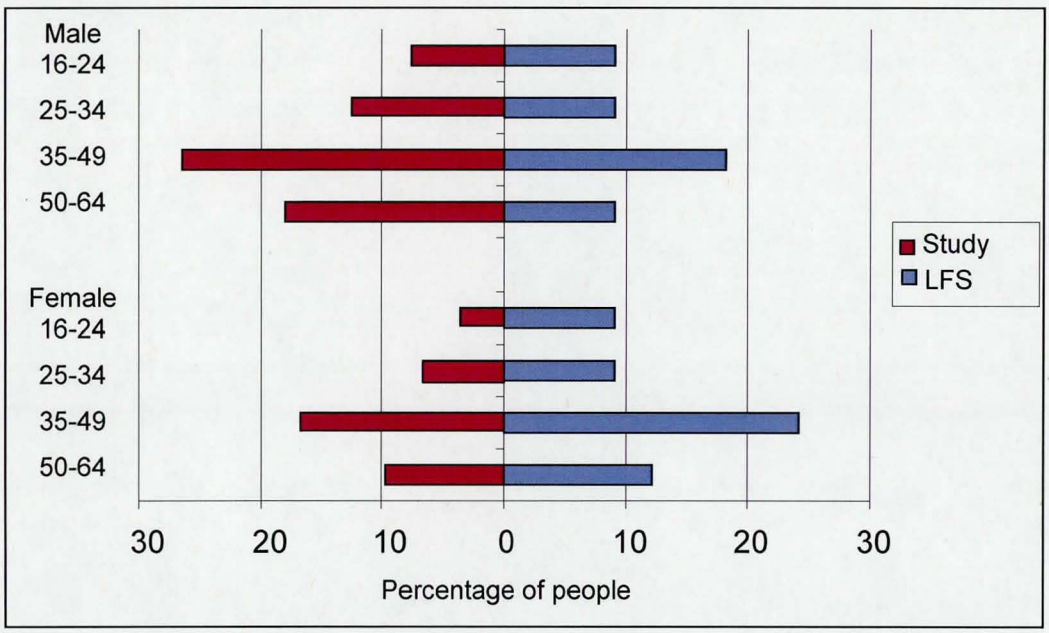

Figure 5.6: Distribution of sample compared to the disabled working age population by age group and gender

For all age categories the female sample for this study was lower than the LFS (Smith & Twomey, 2002), conversely for all age categories the male sample was higher. This discrepancy was proportional to the higher percentage of males in the study compared to females. Unfortunately sampling criteria were out of the control of the researcher and therefore could not be regulated to obtain a sample more representative of the population.

Health conditions and impairments

In the initial interviews participants were asked if they had any medical conditions or disabilities together with any relevant details about the effects. Figure 5.7 outlines the type and percentage of impairments within the sample group compared to the type and percentage of impairments within the disabled population as a whole according to the LFS (Smith & Twomey, 2002).

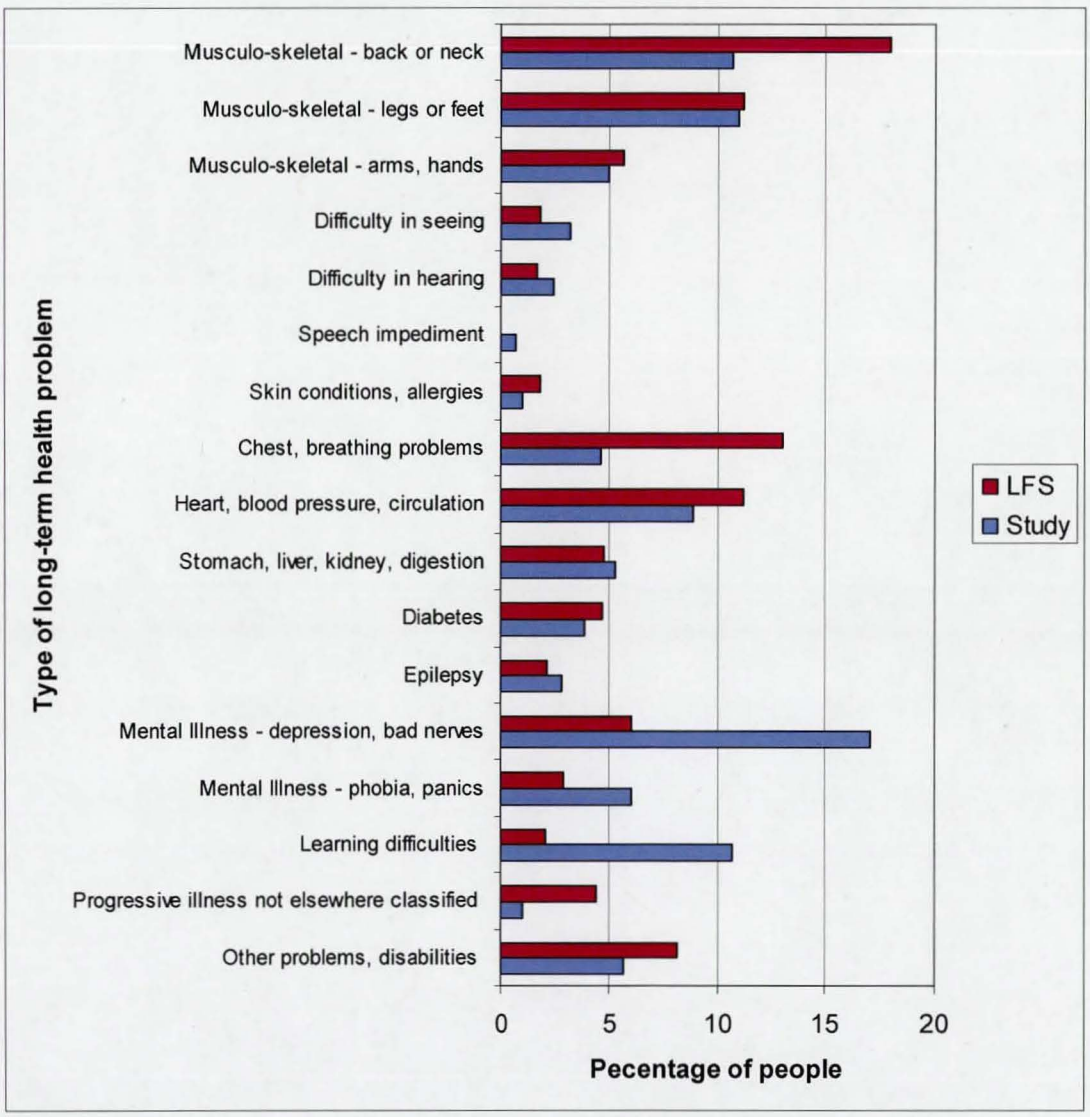

Figure 5.7: Comparison of sample to disabled population for type of impairment

The results of this data show that in the sample there is a much higher percentage of people with mental illness and learning difficulties than in the general population of people with disabilities and a lower percentage for musculoskeletal (back or neck) and respiratory problems. This is expected due to the fact that the LFS (Smith & Twomey, 2002) is a combination of

employed and unemployed people but the sample was strictly unemployed. With mental illness and learning disabilities being the two most disadvantaged groups (with the lowest employment rates) (Hirst et al., 2004) the probability of having a higher percentage of individuals with these impairments within a sample of unemployed people increases. Conversely although musculoskeletal problems are more prevalent within the disabled population they are less likely to be associated with unemployment, as are respiratory conditions (Berthoud, 2006).

Education level

In the initial interviews participants were asked to provide information about their educational background. These data were compared to the findings from the LFS using the same general categories, these are presented in Figure 5.8 below.

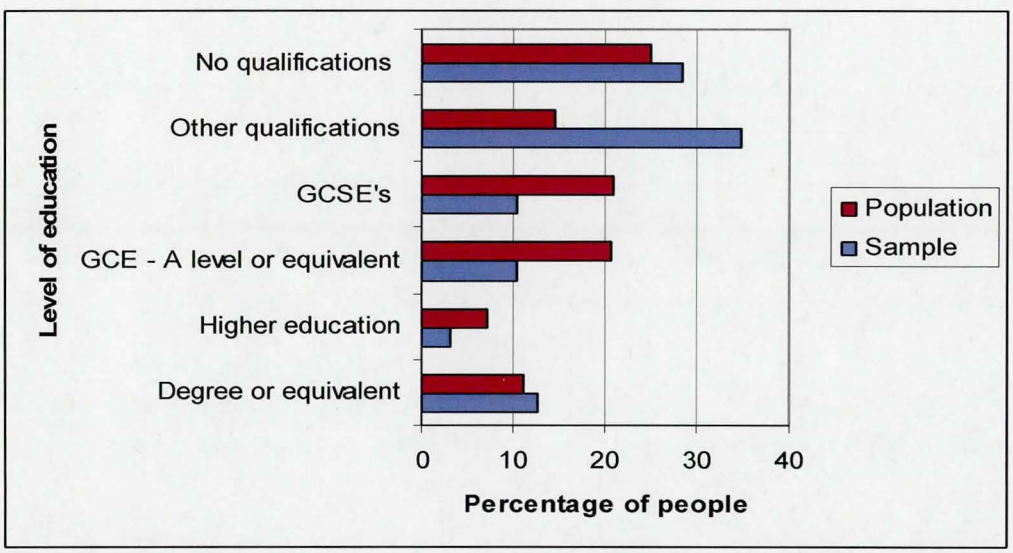

Figure 5.8: Comparison of sample to working age disabled population for education level

The results of these data show that a greater percentage of the sample has lower qualification levels (less than GCSE's) than the population. Again this was expected as people with higher qualifications have been shown to have higher employment rates regardless of their health status.

Length of time unemployed

The data collected from the initial interviews were used to determine the length of time since the participants had last been in employment. The results of these data are presented in Figure 5.9.

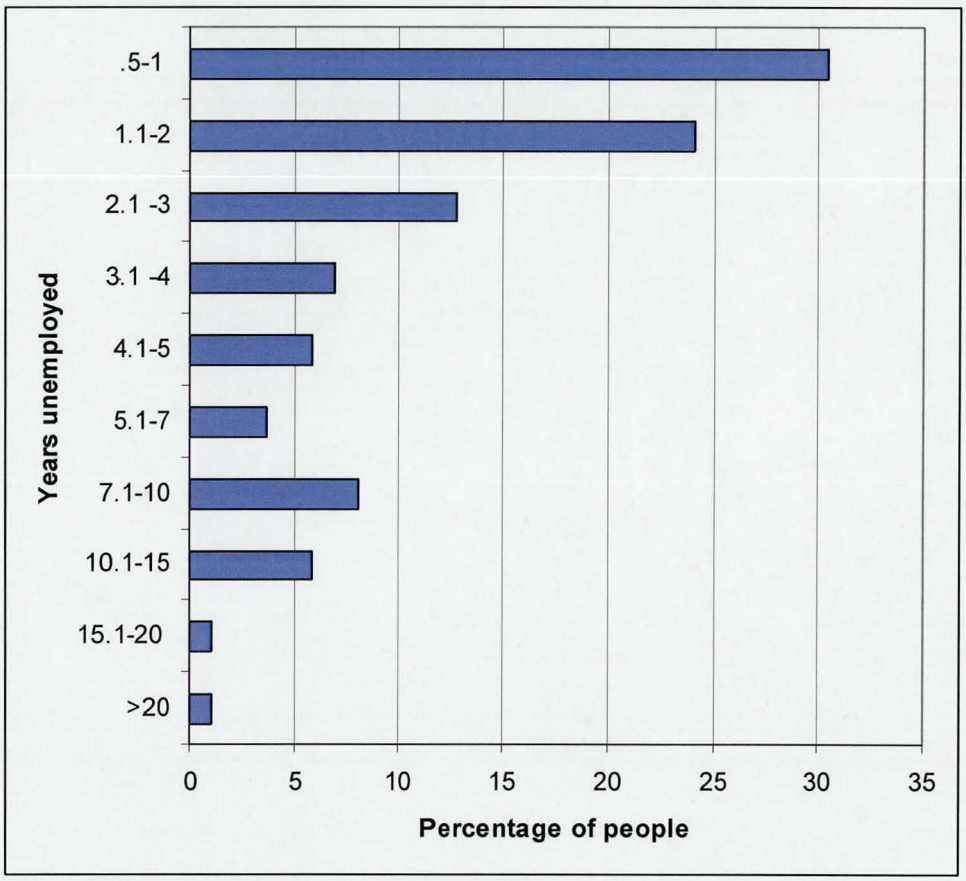

Figure 5.9: Length of time unemployed

The trends of these data show that the majority of the participants had been unemployed for less than two years and that gradually over time the percentage of participants in each category decreased, this corresponds to national unemployment trends (Kempt, 2006).

5.12.2 AbilityMatch Assessment data

The results of the 191 assessments of participants that reported a disability or health condition were entered into a spreadsheet to organise the data. This was set-up so that the 78 questions from the AbilityMatch assessment were column headings and the data collected from each participant was a row. The full spreadsheet was then analysed in stages to establish themes that were grounded in the data. An extract from the Excel database is

shown in Figure 5.10. This is intended to demonstrate the volume of the data collected and how clusters could be identified to form the taxonomy.

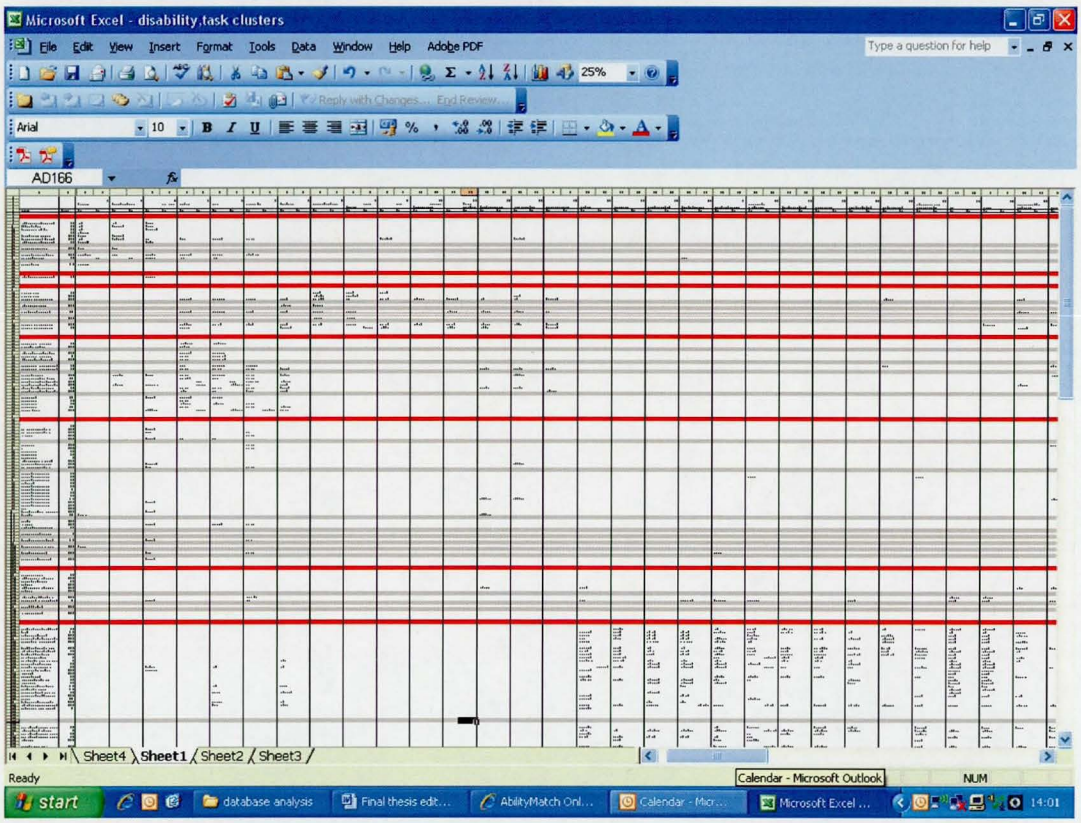

Figure 5.10: Extract from assessment data analysis spreadsheet

Selected example cases from the full spreadsheet are presented in Table 5.3, which shows the responses to questions 16 – 22 (taken from the posture section) for six participants.

Table 5.3: Selected cases from assessment analysis spreadsheet

Condition and Impairment	Que. #16: standing	Que. #17: sitting on a seat	Que. #18: reaching up high	Que. #19: hands above your head	Que. #20: reaching down low	Que. #21: getting under something low	Que. #22: bending your back
Familial spastic paraplegia – some muscle control loss in right side and bladder	Yes but... - easily fatigued	Yes	Yes but... - easily fatigued	Yes but... - easily fatigued	Yes	Yes	Yes but... - easily fatigued
Common peronial nerolgia - nerve damage to right leg, limited mobility	Yes but... - limited strength and movement in right leg	Yes but... - limited strength and movement in right leg, need frequent stretch breaks	Yes	Yes	Yes but... - cannot get into a squat position	Yes but... - cannot bend right leg to get up and down from floor	Yes but... - causes fatigue and pain
Spina bifida – no mobility in legs	No - in a wheelchair	Yes but... - only in wheelchair	Yes but... - only from a seated position	Yes but... - only from a seated position	Yes but... - only from a seated position	No - does not have mobility	Yes but... - only from a seated position
visually impaired - registered blind, can perceive light and dark	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Depression - limited ability to handle stress, some problems with memory b/c of meds	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Degenerative spinal condition – limited strength and mobility in back, medication for pain causes fatigue	Yes	Yes but... - limited period of time, then need to stretch	Yes but... - causes fatigue	Yes but... - would be painful	Yes but... - would be painful	Yes but... - would be painful	Yes but... - would be painful

When all of the raw data were reviewed column by column it became evident that specific tasks were affected more frequently than others. This observation led to the next level of analysis which was to calculate the number of times a specific activity was identified by a participant as limited. Table 5.4 presents the data for this analysis.

Table 5.4: Activities affected by health conditions

Activities	Percentage of people citing a limitation
Lifting (n=85), Carrying (n=80)	40-49%
Using a ladder or stepladder (n=74), Standing (n=71), Working with hands above your head (n=65), Driving (n=64), Getting under something low (n=62), Reaching down low (n=59), Reaching up high (n=58), Walking (n=58), Managing other people (n=58)	30-39%
Leaning over (n=56), Concentrating (n=55), Using steps or stairs (n=54), Working at heights (n=51), Remembering things (n=50), Doing more than one thing at once (n=49), Working with arms outstretched (n=48), Travelling (n=46), Working to deadlines (n=46), Using right leg and foot (n=45), Reaching behind (n=44), Using left leg and foot (n=44), Using a keypad or keyboard (n=44), Using precision (n=44), Writing (n=43), Being exposed to vibration (n=43), Bending your back (n=42), Using numbers (n=41), Manipulating objects (n=41), Communicating with others (n=40), Sitting on a seat (n=40), Using a computer (n=40), Gripping objects (n=39)	20-29%
Making decisions (n=38), Reading (n=37), Changing from one posture to another (n=37), Operating machinery or equipment (n=37), Using slopes or ramps (n=34), Using a telephone (n=34), Following instructions (n=33), Getting around the workplace (n=32), Using right arm and hand (n=32), Working in enclosed spaces (n=32), Using hand signals (n=31), Using left arm and hand (n=31), Learning new tasks (n=31), Adapting to changes of working pace (n=31), Working in very cold conditions (n=30), Working with members of the public (n=30), Using controls (n=29), Working in very hot conditions (n=26), Working in restricted spaces (n=25), Hearing (n=23), Using hand tools (n=23), Going from one environmental condition to another (n=22), Checking things are ok (n=22), Looking around (n=21), Coordinating one hand with the other (n=21), Using a foot pedal (n=21), Understanding displays (n=20)	10-19%
Working in isolation (n=17), Being exposed to airborne contaminants (n=17), Working with others (n=16), Distinguishing different sounds (n=15), Judging the movement of objects (n=13), Using depth perception (n=12), Seeing objects that are near (n=10), Using peripheral vision (n=10), Using hearing protection (n=9), Seeing objects at a distance (n=8), Recognising patterns (n=7), Being exposed to skin irritants (n=7), Working in open spaces (n=6), Recognising the difference between different shapes and sizes of objects (n=5), Recognising the difference between colours (n=4), Identifying things by touch (n=3)	1-9%

When each of these tasks was considered separately it was found that regardless of how many times it was identified as limited, there were only a

few reasons given for the limitation. It was then possible to compile a list of tertiary codes based on each task and the related limitations. The following three examples were taken from the analysis of the reasons or context of why the participants indicated that they had a limitation with the task (a full list of codes is presented in Appendix K). The first example is the list of reasons given for limitations with the tasks of lifting. Although 45% (n=85) of participants identified their ability to do this task as limited, there were only seven reasons given for the limitation; a similar trend was observed with other tasks such as driving and using the telephone.

Lifting

- Limited strength and stamina, n = 62
- Interferes with use of crutches, n = 7
- Can only use one hand and/or arm, n = 5
- Limited grip, n = 4
- Cannot lift from below knee level, n = 3
- Only from seated position in wheelchair, n = 2
- Multiple limitations, n = 2

Driving

- Limited stamina (only for short periods), n = 14
- Causes anxiety, n = 10
- Can only use vehicles with automatic transmission, n = 9
- Cannot hold licence because of vision, n = 9
- Cannot hold licence because of seizures, n = 8
- Cannot pass written test (literacy), n = 8
- Can only use adapted vehicles, n = 6

Telephone

- Causes anxiety, n = 17
- Limited hearing, n = 5
- Only for simple tasks, n = 4
- Limited speech, n = 4

- No hearing, n = 2
- Limited neck movements, n = 2

This trend in the data led to the next level of analysis which was to group similar disabilities and health conditions together to determine if specific impairments were consistently associated with limitations for the same tasks and context. Each disability or health condition present in the sample was assigned a primary code and then for each impairment associated with the disability or health condition a secondary code was assigned. An example of this was Spina Bifida as the primary code, and paralysis of legs as the secondary code. For some of the data a term for the disability or health condition (i.e. primary code) was not supplied, only the resulting impairment which was the secondary code. These data enabled the researcher to create a taxonomy of disabilities linked to impairments then the tasks affected and context of the effect, using the primary, secondary and tertiary codes. The data were organised using link tables to show the relationships between these codes. Table 5.5 presents an example of the results of this analysis comparing the above example of 'lifting' and 'using the telephone' for two different impairment groups: hearing and musculoskeletal – arms and hands.

Table 5.5: Comparison of responses for two impairment types

		Lifting							Using the telephone						
Sub category	**affects**	Limited strength and stamina	Interferes with use of crutches	Can only use one hand and/or arm	Limited grip	Cannot lift from low	Only from position in wheelchair	Multiple limitations	Causes anxiety	Limited hearing	Only for simple tasks	Limited speech	No hearing	Limited neck movements	Only in one ear
hearing impairment	limited hearing, uses hearing aid									X					
hearing impairment	20% loss in right ear, 70% loss in left									X					
loss of hearing in one ear	only affects certain situations														X
deaf - almost no residual hearing	can only hear very loud noises												X		
prelingually deaf	complete hearing loss												X		
tinnitus in left ear	ringing in the ear									X					
Dupuytren's contracture	hardening of the tendons in hands/fingers, clawing of the hands				X										
Carpal tunnel syndrome	strength and stamina in wrist movements				X										
unspecified	loss of mobility and strength in right hand			X											
unspecified	nerve injury affects upper arm movements	X													

The data collected from the AbilityMatch assessments established that there were a number of themes that emerged, generally they were:

- certain tasks were more commonly affected than others,
- each task, regardless of how many times it was identified as being limited, was only limited in a certain number of ways,
- specific impairments lead to specific tasks being affected,
- specific disabilities or health conditions lead to specific impairments.

These trends in the data led to a bottom up analysis, where the more specific information was traced upwards to the more general. The results of these data show that it was possible, with some level of certainty, to predict the work task related limitations that individuals experience based on the type of disability or health condition that they have and the related impairments. By collecting information from a substantial number of individuals with similar conditions or impairments it was possible to establish the range of effects caused by a specific disability or health condition and in the absence of this information by just the impairment itself. All of the data collected from this study was organised into a taxonomy which presents the range of each factor (disability or health condition, limitation, task affected and context of affect) providing a framework on which to base the information tool on.

5.13 Discussion

From this study it was possible to; validate the AbilityMatch assessment system, identify tasks affected by disabilities or impairments and make recommendations on the structure of the information delivery tool.

5.13.1 Validation of the AbilityMatch assessment system

The use of the AbilityMatch assessment system to collect data from the participants was a condition of the funding and therefore could not be replaced by another assessment procedure. A review of other assessments was conducted to determine if the AbilityMatch system was as thorough as other accepted methods. The AbilityMatch system was found to be more in-depth and covered more work related subject matter than any of the other

assessments reviewed, this finding was substantiated by a similar study done in vocational rehabilitation ergonomics (Brown, 2004).

Most functional capacity assessments are based on medical terminology and more recently the International Classification of Functioning, Disability and Health (World Health Organisation, 2002, pg. 2), however this approach is used to describe health related states and does not directly address work related factors. The ICF was able to offer guidance on how to classify disabilities and impairments which was helpful for structuring the first two levels of the taxonomy, up until work tasks are introduced.

This study conducted more AbilityMatch assessments than any other research previously carried out, which enabled the researcher to evaluate the reliability of the assessment results. For some conditions or impairments there were a limited number of case studies available (e.g. speech impairments, Multiple Sclerosis, Cerebral Palsy) which limited the conclusions that could be drawn from the data. However, other types of conditions or impairments were common (e.g. visual impairment, depression, anxiety, dyslexia etc.) resulting in a substantial number of case studies being completed and consistent results being obtained.

The AbilityMatch assessment system is currently being used by more than 30 employment intermediaries and vocational rehabilitation professionals. Personal communication with many of these professionals has confirmed that they found it to be a valuable tool for gathering detailed information on the work related limitations of their clients. Some stated that it had been very useful for identifying unexpected tasks that a client would find difficult because of their condition or impairment. An example of this was clients with hearing impairments having difficulty with using a ladder because their balance was affected. The systematic approach to taking into account every possible task prevents the assessor from making incorrect assumptions about the effects of a person's condition or impairment.

5.13.2 Tasks affected by disabilities or impairments

In the medical model assumptions are often made concerning how a condition or impairment will affect an individual, based on factors such as symptoms, medication, and personal history. Although it is necessary to make some assumptions in order to determine the best course of treatment, because of the diversity of human beings it is difficult to predict the effects that a condition or impairment might have on a person's ability to carry out certain tasks. This difficulty in foreseeing obstacles increases with the complexity of the tasks, such as those related to work. However, much like with the medical system if enough data are collected on how people are affected by a certain condition or impairment then some deductions can be made. In this study by grouping participants with similar conditions or impairments together it was possible to identify trends in the data collected on the tasks affected by that impairment. These data also showed there is usually a range of effects related to individual tasks, so by including information on the full range a user can identify which are relevant to their specific circumstances.

5.13.3 Structure of the tool

The restrictions on the researcher's ability to implement solutions into the participants' workplace prevented the collection and validation of data on workplace solutions, however a vast amount of data was collected on over 60 different disabilities or health conditions from 191 people (see appendix L for full list disabilities and health conditions). These data were manipulated to create a taxonomy that can be used to identify the work related tasks that will most likely be affected by these disabilities as well as how these tasks will be affected, as shown in Figure 5.5 (Coding tree for disability classification and related tasks). Although an adequate number of assessment were conducted to predict the effects of some of the more common conditions or impairments, in order to link the factors together an electronic system would need to be built for this purpose. This was considered the next phase of the tools' development but was outside the scope of the current project.

The need for this form of taxonomy was identified in the literature by researchers in the area of rehabilitation (Shrey, 1995; Kettle & Massie, 1986; Feuerstein, 1997) as there is currently a lack of information on how disabilities or health conditions can affect work related tasks, making it difficult to support people with disabilities in the workplace to make adjustments.

By using the structure of the AbilityMatch assessment system to create the framework for the tool the two can be linked up electronically to streamline the process of going from assessment outcomes to looking for advice or guidance on specific tasks. This allows the two tools to work in succession or to have the information delivery tool as a stand alone product.

5.14 Critique of methodology

The sample 191 participants were all from the Hampshire region of the UK and were recruited through the same employment support programme; these factors may have had an effect on the data collected and its generalisation to the population of disabled people as a whole. However the data being collected were strictly related to types of disabilities or limitations and the associated effects which should not have been influenced by sampling procedures. The consistency in the data collected from participants with similar disabilities or limitations indicates that individual circumstances have less impact on the tasks than the severity or perceived severity of the condition itself. Additionally the variables measured in the sample e.g. age, gender, type of disability etc. were found to be similar to those in the Labour Force Survey (Smith & Twomey, 2002) which indicates the sample was representative of the disabled population in general.

Based on the outcome statistics for the overall SOTS – MAWJ programme, the rate of employment within the programme period were higher than average for employment support programmes in that demographic area. Additionally feedback was gathered from the participants when they completed the programme which showed that the programme was rated as

'above average', as was the AbilityMatch assessment portion of their experience. However due to the restrictions imposed by the managers of SOTS-MAWJ programme it was not possible to conduct follow-up interviews with the participants to gather data on the effectiveness of the information they were given concerning workplace adjustments and how to introduce them into their place of employment. This prevented the researcher from being able to measure any effect that the intervention had on the participants' success with workplace adjustments.

5.15 Conclusions

A vast amount of rich, qualitative data was collected from this study due to the substantial number of participants that took part and the depth of each case study. This made it possible to establish themes in the data that were robust due to the high level of saturation. This allowed the researcher to substantiate the assumption that given a large number of participants it was feasible to predict the effect on work related tasks associated with a specific disability or health condition. Although the participants represented a very diverse population those with similar health conditions or impairments exhibited consistent limitations with work related tasks as presented in the AbilityMatch assessment.

The data showed that certain tasks were more commonly affected than others; each task, regardless of how many times it was identified as being limited, was only limited in a certain number of ways; specific impairments lead to specific tasks being affected; and specific disabilities or health conditions lead to specific impairments. This led to the structure of the taxonomy that was developed as the framework for the information delivery tool. It also highlighted the need to present the range of effects on a task to allow people with similar disabilities or conditions to identify information based on their specific circumstances.

Chapter 6: Towards A System Specification

6.1 Introduction

The research conducted for this thesis set out to accomplish a number of aims related to the development of a tool that could provide information on disability and employment.

The first aim was to establish if the existing system for obtaining this information was adequate to meet the needs of the stakeholders. The data collected directly from different stakeholder groups in Study 1 and Study 2 revealed that the existing process for obtaining information relating to disability and employment is inadequate and disjointed, this is corroborated by the literature (e.g. Bambra & Whitehead, 2005; Curtis, 2003; Purdon et al., 2005; Thornton & Zeitzer, 2003).

It was determined that the government have several initiatives in place to address the information needs of people with disabilities in the workplace but have yet to operationalise the programmes. The government aim to get people with disabilities into work, but offer no pragmatic way to do this. The people that require support have very specific needs, but in this research were found to have been supplied with limited, or no information, on workplace solutions or services. There was strong evidence from the focus groups that there is a need to share information between the stakeholders, the database or information system proposed in this research could provide this in a more complete and user friendly way. Additionally results from Study 3 indicated that by presenting work solutions to the participants their self efficacy was improved, by being able to see themselves actually doing the job, which is critical to the successful placement (and retention) of a person in a job.

The second and third aims of this research were to establish who stakeholders in the return to work process were; and what their information requirements were. These issues are discussed further in section 6.2.

The last aim was to develop a framework for the disability and employment information delivery tool to meet the needs of users and this is considered in section 6.3.

6.2 User needs analysis

To systematically evaluate the user needs of the tool development researched in this thesis a Requirements Specification Template called Volere (Robertson & Robertson, 2006) was employed. This template was produced to assist organisations with organising and communicating system requirements and in this thesis helped to bring together the recommendations in the ISO 13407. The template breaks down the project into five parts: Project drivers; Project constraints; Functional requirements; Non-functional requirements; and Project issues. Each of these parts will be covered in sections 6.2.1 to 6.2.5

6.2.1 Project drivers

The purpose of the project

The research conducted for this thesis set out to accomplish a number of aims related to the development of a tool that could provide information on disability and employment. The data collected could then be used to determine if the stakeholders' information needs were being met through their current knowledge management practices or if there was a requirement for a new information delivery tool.

The motivation for undertaking this research and subsequent development of a new tool was to improve the dissemination of information crucial for the support of people with disabilities in the return to work process. Without adequate knowledge of the support that is available, the chances of getting or keeping employment decreases. By improving this situation it may be

possible to decrease the unemployment rate for people with disabilities, which has been established as a growing problem in the UK.

Goals of the project

To develop a tool that contains all the information a user might need to provide the best support possible to people with disabilities in the return to work process. The tool must also be easy to use and efficient to ensure that it is taken up by the user.

For the tool to be successful it must meet the needs of the user by; allowing them to search for information quickly, providing complete information, presenting information specific to the circumstances and improving the support users' offer to their clients.

6.2.2 The client, the customer, and other stakeholders

The client

There are two main clients involved in the development of this tool: The Department for Work and Pensions, and The European Social Fund, as they funded the research.

The customer

The target consumers of the tool represent a number of organisations, such as; employment support programmes, volunteer organisations to help the disabled, Jobcentre Plus, and Primary Care Trusts. Each of these organisation have staff whose job it is to provide support to people with disabilities in the return to work process.

Other stakeholders

There are a number of stakeholders that would be affected by the development of this tool, all of which have some interest in the employment outcomes of people with disabilities. For each of the groups of stakeholders however the motivation and requirements differ, therefore each will be considered separately below.

1. Working age people with disabilities – As the main stakeholders in the return to work process, this group have the most influence on the tool. The knowledge needed from this group includes the following; how their disability affects work related tasks, what support they have received and from what organisations, what issues they have encountered that they did not receive support for and what workplace solutions they have used to overcome the limitations resulting from their disability or health condition. This information can then be entered and structured in the tool to transfer this knowledge on to others to help guide them through the process.

2. GPs – Input needed from GPs would focus on details of medical conditions and implications for work tasks. To support their patients in employment GPs need to know how the health condition will affect work related tasks and if working will present any danger to the patients condition. Additionally they need to know what organisations can offer support to their patients, with respect to employment, so that they can convey this information to them.

3. Allied medical professionals – The main knowledge needed from this group is what treatments or therapies are available for specific disabilities and how these can affect employment. Secondary to this is information on what support is available through the professionals included in this group. Similar to GPs this group would need access to information on how disabilities may affect an individual's ability to carry out work related tasks and where they can refer them onto for employment related support.

4. Government – The area of knowledge that was shown to require the most input was that of information on government programmes that offer support to working age people with disabilities. Therefore this group of stakeholders would be key in supplying valuable data for the tool, for example information on; benefits, training programmes, employment support programmes and funding for reasonable adjustments.

Conversely this type of information was also shown to be the most needed by this group, indicating that due to the structure of the departments this information is not passed on from the management to those who work directly with people with disabilities. To address this conflict it would be necessary to obtain the information directly from upper management and disseminate it to advisors through the tool.

5. Employers – The knowledge needed for this project, which would come from this group, concern the in-house support available through organisations. This information would vary depending on the size of the company, their disability policy and whether it is a public or private organisation. Information needed by this group would focus on the needs and limitations associated with an employee's disability or health condition and how this may affect workplace tasks. Additionally employers would need to be aware of agencies or programmes that are available to offer support to the employee and employer, especially relating to funding and workplace adjustments. Another area of knowledge that is important to supply to employers is what their legal duties are to employees with disabilities and how these can be met.

6. Volunteer organisations - It would be necessary to collect information on all volunteer organisations that offer support to people with disabilities and details on the support available, as well as the geographic locations they cover. Volunteer organisations that use the tool may require information on other organisations or government agencies that could also be useful to clients, as well as the legal rights of people with disabilities.

7. Developers – To ensure that the tool is constructed to be compatible with the existing AbilityMatch system, software developers would need to be consulted for guidance.

6.2.3 Users of the product

The hands on users of the tool could be members of any one of the stakeholders discussed above, but in the initial stages the focus is on those generally known as 'employment intermediaries' or 'vocational rehabilitation professionals'. These professionals typically work for government agencies, employment support programmes, rehabilitation centres, large companies and disability volunteer organisations. The role of these professionals is to support people with disabilities in the return to work process, assisting them with either gaining or retaining employment. The level of knowledge they possess is dependant on the following factors; years of experience, formal training, in-house training and networking opportunities. Based on the research conducted with various user groups these professionals would be considered to have an intermediate level knowledge of computers. There is a possibility that users may have additional needs due to a disability or health condition which could affect the way they interact with the system due to the use of adapted equipment.

The other group of hands on users would be those charged with the responsibility of upgrading and maintaining the tool. These users would need to have a working knowledge of how to input or alter the content of the tool as well as where to locate information on various topics related to disability and employment.

6.2.4 Mandated Constraints

The objective of this research was to develop an information delivery tool that would work with the existing structure of the AbilityMatch assessment system, therefore the structure of the software as well as the IT platform must be taken into consideration. To allow for frequent updates to the content, the tool must be available online to allow for constant administrator access. In order to avoid excess costs the tool must be simple enough for a non-IT specialist to enter new data or modify old data. Finally the tool must be fully accessible for people with disabilities using adaptive equipment, however this can be accomplished by developing an accessible version.

The tool would be accessed through the internet by the users' personal computer, therefore an alternative method for utilising the tool would need to be taken into account if the user was working remotely and not able to access the internet. A potential solution to this issue would be to provide the tool in a CD version to users who require it, the CDs would also need to be updated at intervals.

6.2.5 Relevant facts and assumptions

Facts

The hands on users of the tool may have varying degrees of background information on the individual they are supporting, in some cases the client or patient may supply the medical term for their disability or health condition or they may only be able to identify the resulting impairment. An example of this would be an individual that states that they have dyslexia, which would result in a cognitive impairment, whereas another individual may not have had a proper assessment and simply states that they cannot read or write. To allow the user to identify the appropriate information in the tool, depending on the information given, they must be able to enter the tool from either the medical term or the resulting impairment.

The effects of any given specific disability or health condition will differ from person to person, therefore in each stage in the linking process the whole

range of possible outcomes must be presented to allow the user to narrow down the information based on the specific circumstances of their client.

The support available to people with disabilities is constantly evolving, this includes; advances in medical treatment, the development of new assistive technology and especially changes to the programmes, funding and benefits available. The consequence of this is that any tool designed to provide information must be constantly updated and the sources used to supply information must be reliable and accurate.

Assumptions

The main assumption made about the development of the tool was that it would work in conjunction with the existing AbilityMatch assessment system, however throughout the course of the research conducted on the user needs for the tool it became apparent that the tool should have the option of being a stand alone product as well as being linked to the original system.

Assumptions were also made about who the hands on users of the tool would initially be, employment intermediaries and vocational rehabilitation professionals, this was based on the current and target users of the AbilityMatch system. The recent government initiates to promote the involvement of doctors and employers in the return to work process may provide an opportunity to engage this group of users, possibly having an effect on the organisation and content of the tool based on the knowledge and needs of these users.

6.3 Solutions database

Data collected from the stakeholders in the return to work process indicated that several topics would need to be covered in a disability and employment information tool for it to be effective. A summary of these topics is presented in Figure 6.1:

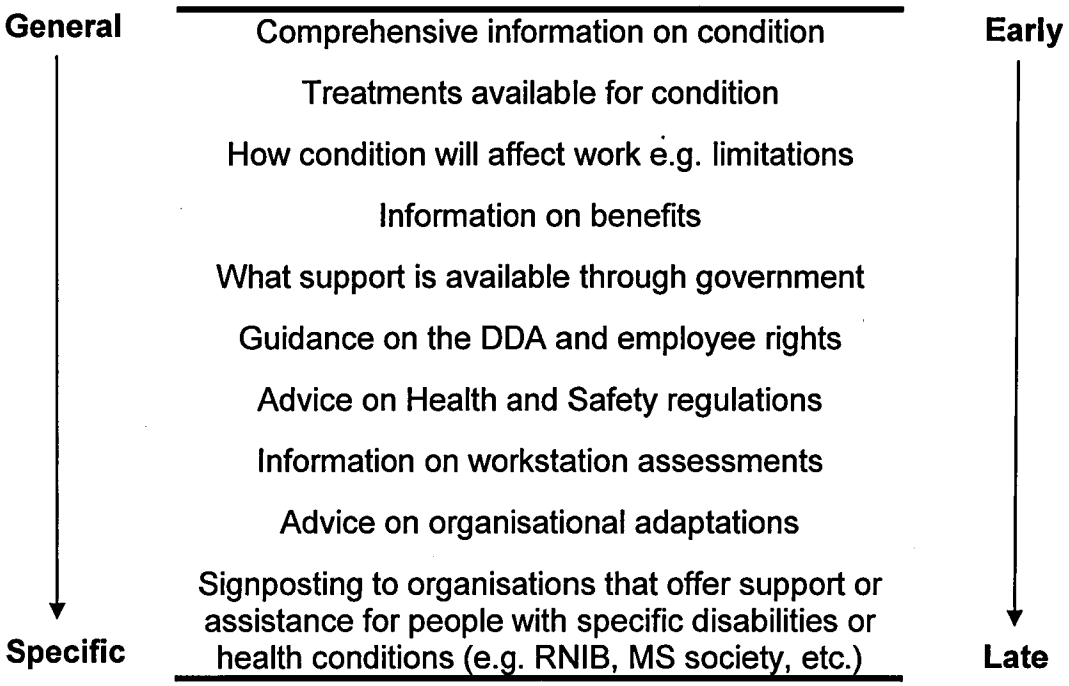

Figure 6.1: Summary of disability and employment information

To satisfy the requirements of the sponsors a document was produced which contained information regarding the needs and potential solutions for people with common disabilities. This document was a product of the data collected from all three studies; Table 6.1 presents an example of one disability (full document is presented in Appendix M).

Table 6.1: Excerpt from work solutions document

Impairment	Effects on Work	Useful information/Solutions
		Mental Health/cognitive
Depression (general) – can come from not being successful at looking for work	May not want to go to work, motivation, fatigue, can't get out of bed, limited ability to interact socially, performance at work is hindered = discipline, can't communicate	• To improve attendance and motivation it may be beneficial to pair the employee up with a 'buddy' at work, ideally this person will be in a slightly supervisory position but not too far above the employee. The reason for this is that the employee should feel accountable to the buddy but if they are in a high ranking position the employee may be intimidated. • Co-workers that are responsible for tracking the employee's performance should be trained in how to affectively communicate with individuals with depression, if this is not possible it may be best to have a professional come in from a local mental health team to assist with any conflicts, this could be arranged through the local Community Mental Health Team (CMHT) or the Mental Health Trusts, details of these organisations can be obtained through NHS direct • Depending on how the employee feels about disclosing details of their condition, it may be advisable to have a quiet word with co-workers to discuss how best to handle any conflicts that may arise with the employee or to generally educate them about the employee's specific needs. This is especially important with employees that have had difficulties with co-workers in the past. • Working flexible hours can many times resolve difficulties the employee is having with getting to work or issues that they have with travel to work during rush hour, this could also be resolved by working remotely so many hours a week • If it is difficult for the employee to work a continuous 8 hour shift and working from home is not an option, then having a designated area for the person to go and rest comfortably for certain times may increase their stamina especially if it is affected because of medication. This could be a reclining chair in a lounge or a roll mat in an empty or little used room. • It may be necessary to reallocate tasks that the employee finds daunting, this could be a short-term solution until they gain confidence with their abilities or a more long term arrangement if they find it fatiguing or causes their condition to deteriorate. • If the individual is taking medication it is most likely to be a Selective Serotonin reuptake inhibitor (Prozac, Paxil, Zoloft etc.), typically this type of medication only causes side effects during the acclimation stage but these include; drowsiness, nausea, headaches, dizziness, and continued feelings of depression. How a person will react to medication varies depending on the drug and the individual so regular check-ins with the employee to see how they are feeling would be the best way to monitor their performance and any changes to work that need to be addressed • It is quite common for people with clinical depression to also have an anxiety disorder as well, see below for information on anxiety.

Chapter 7: Conclusions

7.1 Final conclusions

Final conclusions from this research are presented under the four main aims that were set forth in the Introduction to this thesis.

Aim 1: Determine if the existing system for providing work related information to people with disabilities was adequate or to substantiate that there was a need for an improved system.

The literature and the studies conducted for this thesis confirmed that the existing system for information delivery to people with disabilities regarding employment is deficient. The research showed a compelling need for a tool that could support the dissemination of disability and employment related information, based on the user requirements.

Aim 2: Identify the stakeholders in the return to work process for people with disabilities, establish what their role was and where they fit into the process.

The data collected corroborated the rehabilitation process set forth by Mital & Karwowski (1988) which indicates that the process is universal and has not changed over the last 20 years. However, at the time of writing this thesis the system for getting Incapacity Benefits in the UK was being adapted to place more checks in the long-term application process. In the past, doctors were able to sign-off patients for up to 28 weeks without scrutiny (second opinion) but now patients need to be seen after 2 weeks by an Incapacity Benefits Personal Advisor (IBPA) to review the case and decide if the patient is eligible for a longer period of time. This group of professionals will be more involved with early intervention strategies and are prime users for the system. Other key stakeholders in the process were also identified and their roles within the

return to work process, which can be very complex and lengthy, were established.

Aim 3: Determine the information needs of the stakeholders.

The needs of the key stakeholders, in particular those who have not previously been well researched, were identified to ensure any system developed to provide information about disability and employment would meet their requirements. Access to Work, UK government scheme to support people with disabilities in the workplace, has been shown to be overextended and can no longer be utilised by the public sector. This creates a gap in service provision, so the stakeholders now require an alternative approach to obtaining and sharing information on how to accommodate people with disabilities in the workplace.

Aim 4: Develop a framework that would meet the needs of the stakeholders.

A framework to meet these user requirements was developed. This could be used by various government agencies with common goals (i.e. Department of Health, Department for Work and Pensions and the Health and Safety Executive) to draw them together by signposting users to the appropriate services for their specific needs. This is very timely, as the UK government is currently concentrating on new support programmes, but these will have little value if the stakeholders in the process are not aware of them.

7.2 Limitations of the research

Study 1 involved a small sample size which was not completely representative of the population; however disabilities are very complex and found in only a minor segment of the population. It can also be difficult to engage people with disabilities in research due to difficulties with identifying them. Additionally, because each person is different, even when presenting similar circumstances, it is difficult to perform statistical analysis on the data, but the sample instead provided rich qualitative data.

Qualitative analysis is useful for exploring broad new areas, however this is very different from using formalised analysis techniques. There are some systems available for analysing qualitative data in a structured manner, such as NVivo, but for this research they were not appropriate for identifying sequences and processes in the data, which was an essential component.

The restrictions of the sponsors had an influence on the sampling strategy for Study 2 and Study 3 as there were certain groups that they were interested in collecting data from. The consistency in the data suggested that this did not have a serious impact on the quality of the results. The sponsors also imposed a restriction on access to participants for follow up interviews and so validation of the interventions identified in the assessments could not be undertaken.

The complete data set for Study 3 could not be presented in this thesis as one image due to the size of the spreadsheet (15,000 cells), this made it difficult to communicate the results and show how they would contribute to the development of the database.

7.3 Contribution to knowledge

This research filled a gap in the knowledge presently available on the information needs of employment intermediaries or vocational rehabilitation professionals in the UK. To improve the system this needed to be investigated.

The research has confirmed who the stakeholders in the return to work process are and identified in detail the needs of two of these stakeholders groups: the intermediaries and vocational rehabilitation professionals, something that has not previously been reported.

The research has substantiated the return to work process for a person with a disability and researched new information about the specific interventions that can be introduced to support a person with a disability in the workplace.

The research has also identified how a tool can draw together the needs of each stakeholder and their individual information to ensure that needs of clients are met along the return to work process. Knowledge exists in pockets but this information has not previously been drawn together to specify a tool that ensures all the needs of the stakeholders are met. The research has gone on to propose a taxonomy or structure for a tool that would meet the needs of the stakeholders by linking work solutions to conditions or impairments.

This research has also identified in context the effects of health conditions or impairments on work related tasks, how individuals feel their condition would affect their ability to do a task at work, an area that has not previously been collected in volume.

7.4 Future work

This research has explored and established new material relating to the return to work process and the information requirements of the key stakeholders. Whilst this has generated new knowledge, there is still further work to be done to support this research. This includes:

- Generation of case studies about how people implement approaches to workplace adjustments, to enhance the data already collected.
- Collection of additional data from people with disabilities or conditions that were not well represented in this research sample, to validate the correlation between those impairments and effects on tasks across the full range of the population.
- Validation of interventions proposed by the AbilityMatch assessments through follow up studies.
- Creation of an electronic version of the information tool to enable the user to interactively probe the database.

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Appendix A – Press release for Study 1

Date

Disabled people needed for employment study

Disabled people who are willing to talk about their experiences of job-hunting and the workplace are needed to take part in a Loughborough University study.

Researchers at Loughborough have already spoken to unemployed disabled people about the problems they have faced finding work.

Now they want to talk to working people with disabilities about the resources they used to get a job – and how user-friendly they consider their workplace.

At the end of the project, researcher Nadine Geddes hopes to come up with a new on-line system that will help disabled people to find work more easily.

She said: "The whole issue is very topical at the moment because of the Government's determination to reduce the number of people on Incapacity Benefit. What I have discovered so far is that people with disabilities find it very hard to get the help and information they need to land a job.

"I would like to speak to employed people with disabilities who can give me some insight into who they spoke to when looking for a job; who helped them out; if they had to find information themselves or it was given to them. I would also like to know if they feel their working environment caters for their needs."

Recent Government figures show that 2.7 million people in the UK are currently claiming Incapacity Benefit at an annual cost of £12.5 billion – but that nine out of 10 hope to get back into work.

However, statistics also reveal that, after two years on Incapacity Benefit, claimants are more likely to retire or die than find another job.

This is a trend that Ms Geddes is hoping to influence.

She added: "Knowing that disabled people have difficulties finding a job is not enough. We need to know what these difficulties are and then do something about them. That is the long-term aim of this study."

Working people with disabilities who volunteer to help with the study will be asked to take part in a 40-minute telephone interview.

Anyone interested in taking part should contact Nadine Geddes on 01509 226903.

ENDS

For further information, contact:

- Nadine Geddes, Researcher, Ergonomics and Safety Research Institute, Loughborough University, T: 01509 226903, E: N.Geddes@lboro.ac.uk

Appendix B – Participant information sheets for Study 1 (unemployed and employed)

Participant Information Sheet
Health Conditions and Employment

Who are we and what are we doing?

This research project is being done by Loughborough University's Ergonomics and Safety Research Institute to help find ways of getting or keeping people with health conditions into employment. To do this we must interview people with health conditions to find out what problems that they face when they are looking for work or have had in past jobs.

Who are we looking for?

If you have a disability and are currently looking for work, your point of view can help us to make recommendations on how to support people with disabilities into employment. If you are willing to participate in this project you would be playing a part in finding the problems and solutions that people with disabilities come across where work is involved.

What is involved?

All that is required for this study is a short discussion, about 30 -40 minutes, where you will be asked some general questions about your experiences of looking for work and how you think that things could be improved. This discussion will take place when it is easy for you and you will not be asked to make a special trip to take part, instead I will meet with you when you are already attending a follow-up meeting. At the end of the interview you will be asked if you would like to take part in a further study but again your participation is voluntary.

What happens to the information?

At no time will your name be recorded with the information that you have supplied. You will be assigned a number at the beginning of the interview and therefore will remain anonymous. Your personal records will be held on a computer that is password protected so that only authorised members of the university may gain access. All notes will be stored in a secure location and destroyed within 5 years of the end of the study.

Can you stop the interview?

You have the right to withdraw from this study at any stage for any reason, and you will not be asked to explain your reasons for withdrawing.

Who do I contact?

The person in charge of carrying out this study is Nadine Geddes BPEd, MSc. from Loughborough University. If you have any questions about this study or would like to contact the researcher for any reason you can do so by calling: 07817 049 087 or emailing: n.l.geddes@lboro.ac.uk.

Participant Information Sheet
Health Conditions and Employment

Who are we and what are we doing?

This research project is being done by Loughborough University's Ergonomics and Safety Research Institute to help find ways of getting or keeping people with health conditions into employment. To do this we must interview people with health conditions that are currently in employment to find out what obstacles they faced from the time they were looking for work through to when they started in their job, as well as how they overcame these obstacles.

Who are we looking for?

If you have a disability and are currently employed, your point of view can help us to make recommendations on how to support other people with disabilities into employment. If you are willing to participate in this project you would be playing a part in finding the problems and solutions that people with disabilities come across where work is involved.

What is involved?

All that is required for this study is an interview, about 30 -40 minutes, where you will be asked some questions about your experiences of looking for work and since you have been employed. We are also interested to hear your point of view on how you think that things could be improved. This discussion will be scheduled at a time and place that is convenient for you.

What happens to the information?

At no time will your name be recorded with the information that you have supplied. You will be assigned a number at the beginning of the interview and therefore will remain anonymous. Your personal records will be held on a computer that is password protected so that only authorised members of the university may gain access. All notes will be stored in a secure location and destroyed within 5 years of the end of the study.

Can you stop the interview?

You have the right to withdraw from this study at any stage for any reason, and you will not be asked to explain your reasons for withdrawing.

Who do I contact?

The person in charge of carrying out this study is Nadine Geddes BPEd, MSc. from Loughborough University. If you have any questions about this study or would like to contact the researcher for any reason you can do so by calling: 07817 049 087 or emailing: n.l.geddes@lboro.ac.uk.

Appendix C – Consent form for Study 1

Health Conditions in the Workplace

INFORMED CONSENT FORM
(to be completed after Participant Information Sheet has been read)

The purpose and details of this study have been explained to me. I understand that this study is designed to further scientific knowledge and that all procedures have been approved by the Loughborough University Ethical Advisory Committee.

I have read and understood the information sheet and this consent form.

I have had an opportunity to ask questions about my participation.

I understand that I am under no obligation to take part in the study.

I understand that I have the right to withdraw from this study at any stage for any reason, and that I will not be required to explain my reasons for withdrawing.

I understand that all the information I provide will be treated in strict confidence.

I agree to participate in this study.

Your name _____

Your signature _____

Signature of investigator _____

Date _____

Appendix D – Interview questions for Study 1

Participant ID # - _____

Name – _____

Age -

☐ 18-25 ☐ 26-35 ☐ 36-45 ☐ 46-5☐ 56-65+

Nature and onset of Disability –

Previous education –

Previous work experience –

Can you tell me about the history of who you came in contact with and the information that they supplied since the onset of your disability?? If we could do it according to how it occurred i.e. from the first person right through to the present day.

Who or what would you say has been the most instrumental in your getting into work and why?

Is there anything that you can think of that you wish you had known earlier or something that could have helped you but you were not made aware of it when you needed it??

_____

_____

If you could make any recommendations on how to help people with disabilities what would they be??

_____

_____

Can you tell me what you know about the following subjects:

DDA - _____

_____

DEA's - _____

_____

Access to Work - _____

_____

Local support - _____

_____

Reasonable adjustments - _____

_____

Are there any changes that you needed to make to your workplace, the job, or getting to the job so forth in order for you to work or make work easier??

_____

_____

_____

Appendix E – Ethics Application for Study 1

ETHICAL ADVISORY COMMITTEE

Loughborough University

RESEARCH PROPOSAL FOR HUMAN BIOLOGICAL OR PSYCHOLOGICAL AND SOCIOLOGICAL INVESTIGATIONS

This application should be completed after reading the University Code of Practice on Investigations Involving Human Participants (found at http://www.lboro.ac.uk/admin/committees/ethical/ind-cophp.htm).

1. Project Title

Factors influencing the success of employment for persons with health conditions

2. Brief lay summary of the proposal for the benefit of non-expert members of the Committee

In order to determine how best to assist those with health conditions in the workplace it is necessary to establish what factors contribute to their success. This study has two phases, a pilot study followed by longitudinal case studies.

Pilot study – will involve face-to-face interviews with approximately 5 sets of participants: an employee with a disability, and their employer. Interviews will be unstructured and conducted individually. The purpose of this study is to determine, in retrospect, what the participants thought were the reasons why the person with the health condition was able to successfully maintain employment.

Longitudinal case studies – will involve recruiting approximately 25 sets of participants: an employee with a disability, and their prospective employer. Semi-structured face-to-face interviews will be conducted with both participants individually at the beginning of the study, and structured telephone interviews will be conducted at 3 month intervals for one year. The purpose of this study is to determine what apprehensions each of the participants has before employment commences, how they envision overcoming obstacles that may exist, what adjustments they make to the workplace or job, and any problems they encounter over time.

3. Details of responsible investigator (supervisor in case of student projects)

Title	Mrs.	Surname	Victoria	Forename	Haines
Department		Ergonomics and Safety Research Institute (ESRI)			
Email address		v.j.haines@lboro.ac.uk			

Personal experience of proposed procedures and/or methodologies.

Victoria Haines has 15 years experience in applied research, using the techniques proposed in order to gain qualitative information from participants.

4. Names, experience, department and email addresses of additional investigators

Title: Miss Surname: Geddes Forename: Nadine
Department: Ergonomic and Safety Research Institute
Email address: n.l.geddes@lboro.ac.uk
Personal experience of proposed procedures/techniques.

- Currently contracted to work with individuals on a long-term unemployment program, a large percentage of which have mental and physical health conditions and are currently on Incapacity Benefits. Responsibilities include interviewing participants to determine what their major barriers to work may be, assessment of physical limitations, for those that have health conditions additional counselling on how to overcome barriers in the workplace, and follow-up sessions on difficulties they are experiencing with finding work are also provided. To date 86 participants have been through the program with all having been interviewed and assessed by the aforementioned researcher, this work is supported by a team of professionals that include an occupational psychologist and 2 personal support managers.
- Consultancy experience with interviewing and advising individuals with health conditions on appropriate courses of action for overcoming barriers in the workplace.
- Masters thesis conducted on the feasibility of a solutions database for the disability management software system AbilityMatch. During this study 23 participants were interviewed or surveyed concerning the content and design of the database.
- Undergraduate, graduate and professional development courses completed on research techniques which included conducting interviews and questionnaires.

5. Proposed start and finish date and duration of project

Start date	01/05/05	Finish date	01/12/06	Duration	19 months

6. Location(s) of project

Data collection may take place at a range of sites but will fall under one of the following categories: 1. public meeting place i.e. coffee shop, library, etc. 2. common meeting area of a private company i.e. reception area, cafeteria, conference room etc. 3. meeting facility for large groups i.e. convention centres, town halls, community centres.
Researcher will follow the guidelines set forth by the ethics committee in Conducting Interviews Off-Campus and Working Alone.

7. Reasons for undertaking the study (eg contract, student research)

Student research project

8. Do any of the investigators stand to gain from a particular conclusion of the research project?

No

9a. Is the project being sponsored? Yes [ ] No [X]

If yes, please state source of funds including contact name and address.

9b. Is the project covered by the sponsors insurance Yes [ ] No [ ]

If no, please confirm details of alternative cover (eg University cover).

10. Aims and objectives of project

To determine what factors affect the success or failure of persons with health conditions or disabilities in retaining employment. From these findings it will be possible to develop a model for relaying information on how to assist those with health conditions or disabilities in the workplace.

11. Brief outline of project

A) STUDY DESIGN

Pilot study – will involve a face-to-face interview with approximately 5 sets of participants: an employee with a disability and their employer. Interviews will be unstructured and conducted individually.

Longitudinal case studies – will involve recruiting approximately 25 sets of participants: an employee with a disability and their prospective employer. Semi-structured face-to-face interviews will be conducted with both participants individually at the beginning of the study, and structured telephone interviews will be conducted at 3 month intervals for one year.

B) MEASUREMENTS TO BE TAKEN

Audio recordings of the interviews will only be used to assist the researcher in remembering important points that may have been missed or incorrectly taken down in the interview notes.

Interviews will be conducted on the personal experiences of both employees with health conditions and their employers about problems and solutions that they have encountered in the workplace.

12. Please indicate whether the proposed study:

Involves taking bodily samples	Yes		No	X
Involves procedures which are physically invasive (including the collection of body secretions by physically invasive methods)	Yes		No	X
Is designed to be challenging (physically or psychologically in any way), or involves procedures which are likely to cause physical, psychological, social or emotional distress to participants	Yes		No	X
Involves intake of compounds additional to daily diet, or other dietary manipulation / supplementation	Yes		No	X
Involves pharmaceutical drugs (please refer to published guidelines)	Yes		No	X

Involves testing new equipment	Yes		No	X
Involves procedures which may cause embarrassment to participants	Yes		No	X
Involves collection of personal and/or potentially sensitive data	Yes	X	No	
Involves use of radiation (Please refer to published guidelines. Investigators should contact the University's Radiological Protection Officer before commencing any research which exposes participants to ionising radiation – e.g. x-rays)	Yes		No	X
Involves use of hazardous materials (please refer to published guidelines)	Yes		No	X
Assists/alters the process of conception in any way	Yes		No	X
Involves methods of contraception	Yes		No	X
Involves genetic engineering	Yes		No	X

If Yes - please give specific details of the procedures to be used and arrangements to deal with adverse effects.

Employee participants will be asked to provide some information on what the nature of their health condition is how and how it affects their ability to carry out work-related tasks. Before the interviews start participants will be informed that they are free to stop the interview at any time or may refuse to answer any questions that they are not comfortable with. It will also be explained to them how their information will be coded in order to protect their identity and stored in a secure facility.

13. Participant Information

Details of participants (gender, age, special interests etc)

All participants will be of typical working age i.e. between the ages of 18 – 65 and there will be no constraints on gender. Participants will fall into one of the following categories.

1. Persons with a health condition that are either currently employed or are looking for employment.
2. Employers, supervisors or human resource personnel from various sectors of industry.

** Please note participants will be informed that the information given by either the employee or the employer will not be available to the other.

Number of participants to be recruited:

For the pilot study 5 employees and 5 employers will be recruited. For the main study 25 of each will be recruited.

How will participants be selected? Please outline inclusion/exclusion criteria to be used.

There will be no inclusion/exclusion criteria other than the person having a disability and being or about to be employed. This forms the basis for recruitment therefore all those recruited will be selected.

How will participants be recruited and approached?

It may be necessary to approach at least 10 participants for the pilot study in order to get the cooperation of both the employee and employer for 5. For the main study it may be necessary to approach at least 50 employees as several may not gain employment during the course of the study and therefore will not be able to take part.

Please state demand on participants' time.

Time demands will be equal for both the employees and employers, for the pilot study this will require only a one hour interview, and for the longitudinal study a one hour initial interview and four 10-20min follow-up telephone interviews.

14. Control Participants

Will control participants be used? **Yes** [ ] **No** [X]

If Yes, please answer the following:

Number of control participants to be recruited:

How will control participants be selected? Please outline inclusion/exclusion criteria to be used.

How will control participants be recruited and approached?

Please state demand on control participants' time.

15. Procedures for chaperoning and supervision of participants during the investigation

All participants will be interviewed at a location that they are familiar with i.e. their place of work, a public meeting place convenient for them, a local job centre or employment program headquarters. Due to the fact that the interviewer will be the one doing the travelling to the participant and meetings will take place where other people are present it is not foreseen that the participants will require any chaperoning or supervision.

16. Possible risks, discomforts and/or distress to participants

None

17. Details of any payments to be made to the participants

None

18. Is written consent to be obtained from participants? **Yes** [X] **No** [ ]

If yes, please attach a copy of the consent form to be used.

If no, please justify.

19. Will any of the participants be from one of the following vulnerable groups?

Children under 18 years of age	Yes		No	X
People over 65 years of age	Yes		No	X
People with mental illness	Yes	X	No	
Prisoners/other detained persons	Yes		No	X
Other vulnerable groups	Yes	X	No	

If you have selected yes to any of the above, please answer the following questions:

a) what special arrangements have been made to deal with the issues of consent?

Due to the fact that these individuals are considered "work ready" it is not foreseen that they should be considered especially vulnerable even though they will have some form of mental or physical health condition. All participants will be able to give consent on their own behalf and special needs that may affect the participants' ability to read the consent document, provide their signature or hear instructions will be taken into consideration and provisions will be made accordingly.

b) have investigators obtained necessary police registration/clearance? (please provide details or indicate the reasons why this is not applicable to your study)

Yes, copy attached

20. How will participants be informed of their right to withdraw from the study?

They will be notified by the informed consent document as well as being told verbally at the beginning of every interview. Special needs that may affect the participants' ability to read the consent document or hear instructions will be taken into consideration and provisions will be made accordingly.

21. Will the investigation include the use of any of the following?

Audio recording	Yes	X	No	
Video recording	Yes		No	X
Observation of participants	Yes		No	X

If yes to any, please provide detail of how the recording will be stored, when the recordings will be destroyed and how confidentiality of data will be ensured?

22. What steps will be taken to safeguard anonymity of participants/confidentiality of personal data?

All data will be anonymised at the time that collection begins (initial interview), participants will be assigned a reference number and data will be stored using this number instead of the participants name.

23. What steps have been taken to ensure that the collection and storage of data complies with the Data Protection Act 1998? Please see University guidance on Data Collection and Storage and Compliance with the Data Protection Act.

All transcribed interviews and recordings will be stored in a secure location and destroyed within 5 years of the end of the study.
All guidelines set forth by the Ethics Committee will be followed

24. INSURANCE COVER:

It is the responsibility of investigators to ensure that there is appropriate insurance cover for the procedure/technique.

The University maintains in force a Public Liability Policy, which indemnifies it against its legal liability for **accidental** injury to persons (other than its employees) and for accidental damage to the property of others. Any **unavoidable** injury or damage therefore falls outside the scope of the policy.

Will any part of the investigation result in **unavoidable** injury or damage to participants or property? **Yes** [ ] **No** [X]

If yes, please detail the alternative insurance cover arrangements and attach supporting documentation to this form.

The University Insurance relates to claims arising out of all **normal** activities of the University, but Insurers require to be notified of anything of an unusual nature

Is the investigation classed as **normal** activity? **Yes** [X] **No** [ ]

If no, please check with the University Insurers that the policy will cover the activity. If the activity falls outside the scope of the policy, please detail alternative insurance cover arrangements and attach supporting documentation to this form.

Declaration

I have read the University's Code of Practice on Investigations on Human Participants and have completed this application. I confirm that the above named investigation complies with published codes of conduct, ethical principles and guidelines of professional bodies associated with my research discipline.

I agree to provide the Ethical Advisory Committee with appropriate feedback upon completion of my investigation.

Signature of applicant: .....

Signature of Head of Department: .....

Date .....

PLEASE ENSURE THAT YOU HAVE ATTACHED COPIES OF THE FOLLOWING DOCUMENTS TO YOUR SUBMISSION.

- Participant Information Sheet
- Informed Consent Form
- Health Screen Questionnaire
- Advertisement/Recruitment material*
- Evidence of consent from other Committees*

*where relevant

Appendix F – Examples of interview transcripts for Study 1

Unemployed interviews

Participant: 1

Age: 18-25

Nature and onset of disability: 1 year ago - industrial accident, lifting, prolapsed disc (bulging into nerves of spinal cord

Previous education: Secondary school

Previous work experience: Retail - < one year, got HGV driving licence 6 years ago, driving since

Can you tell me about the history of who you came in contact with and the information that they supplied since the onset of your disability?? If we could do it according to how it occurred i.e. from the first person right through to the present day.

Hospital - surgical assessment, saw many doctors in first 8 weeks. Was first told would not walk again, strapped to bed for 4 weeks did recover though. Was just told that he could not do any more heavy lifting.

Went to physiotherapy for rehabilitation (Munic rehab) helped increase mobility (especially hydrotherapy pool), has made as much progress as is possible within the last year. Physical tasks are limited, told to keep up swimming for rehabilitation but was not given any information on how to move into work or on getting living aids, they recommended retraining for Computer Aided Design (CAD) design so could have a desk job.

When spoke to manager he was fired because of long-term disability, rehabilitation centre had sent progress reports so employer knew status. Was not even told who his insurance carrier was.

Saw a lawyer (found from word of mouth) was told that unlawful dismissal would not be best route, going to injury claim, company has admitted full liability. Was not given any information or returning to work.

The hospital contacted Health and Safety department who investigated the company and eventually the company health and safety officer got fired. The Health and safety department supplied information on claim type.

Went to Southdowns college because he wanted to get retrained on CAD, they enrolled him however class ended due to lack of enrolment. They made accommodations: moved class to first floor so no stairs, and changed workstation.

Spoke to the liaison person from Munic (rehabilitation centre), they suggested he speak to a Disability Employment Advisor (DEA) at Job Centre Plus.

Saw the DEA but he suggested inappropriate jobs, then referred on to New Deal for Disabled People (NDDP).

Got a personal support manager at NDDP who is trying to arrange CAD training.

Is there anything that you can think of that you wish you had known earlier or something that could have helped you but you were not made aware of it when you needed it?

Wishes he would have had more information on Health and Safety regulations on lifting and the right to refuse unsafe tasks without getting fired

If you could make any recommendations on how to help people with disabilities concerning employment, what would they be??

Feels that the benefit system is bad, it took 7 months to sort out payments, lost savings, went to psychiatrist because he had no money or support

Can you tell me what you know about the following subjects?

DDA: Does not know anything about this

DEA's: Found out from rehab consultant that they get jobs or courses for people, that is all they do

Access to work: NDDP - suggested they could get money for seats or office space changes

Local support: Not aware of anything

Reasonable adjustments: What work will do for you

Are there any changes that you would need to make to your workplace, the job, or getting to the job etc. in order for you to work or make work easier for you??

Cannot do stairs, needs different seating, no lifting or bending, cannot reach above head, no sitting or standing for long periods, and has to lay on side

Participant: 2

Age: 46-55

Nature and onset of disability: at age of 4 was in a traffic accident, this resulted in the severe loss of mobility in the left arm

Previous education: Secondary school, ET training gardening course

Previous work experience: Worked for the Ministry of Defence as a Queens personal messenger for 10 years, then as a school cleaner 1 year

Can you tell me about the history of who you came in contact with and the information that they supplied since the onset of your disability?? If we could do it according to how it occurred i.e. from the first person right through to the present day.

Was too young to remember the first people he saw about his disability, his parents didn't pass on any information from this period.

Saw a careers adviser in school but they did not give any information

Went to Job Centre Plus and saw a DEA who passed him on to NDDP but didn't give him any information other than the referral

NDDP are still trying to help him find a job

Is there anything that you can think of that you wish you had known earlier or something that could have helped you but you were not made aware of it when you needed it?

Wanted someone to help him that is accessible because DEA's are difficult to contact. NDDP is better because they keep in touch and you don't need an appointment so far in advance, you can just drop in.

If you could make any recommendations on how to help people with disabilities concerning employment, what would they be??

Take more notice of people with disabilities. Policy and Legislation is fine but it is not enforced

Can you tell me what you know about the following subjects?

DDA: Not sure if it has improved, employers aren't educated. He knows a bit about it but would like to know more

DEA's: They are there to try and support disabled people but has never been told what support they offer

Access to work: Does not know

Local support: Does not know

Reasonable adjustments: Does not know

Are there any changes that you would need to make to your workplace, the job, or getting to the job etc. in order for you to work or make work easier for you??

Would need an automatic car, and a licence

Employed Interviews

Participant: 11

Age: 26-35

Nature and onset of disability: Chronic pain syndrome, is in pain whenever moves. Has had it about 13yrs, from may 1993 to October 1993 got progressively worse. Has improved since then but can still only work part-time.

Previous education: undergraduate degree in History, Masters in Archiving

Previous work experience:
Worked at public records office during placement year. Got sick 2/3 year, has only worked part time since then on short contracts (some in the same department). Is not able to move for employment because of treatments

Can you tell me about the history of who you came in contact with and the information that they supplied since the onset of your disability?? If we could do it according to how it occurred i.e. from the first person right through to the present day.
Leicester university disabled student office – tried to provide some transcribing but the service was too slow. Eventually had to quit school because too sick but department was quite good, when came back photocopied others notes and dictated exam answers
During Masters in London Disabled student offices – advisor gave wrong information, advised part-time study but this disqualified her accommodations. Did get self-catered hall of residence close by and after got intercollegiate catered hall but had to do it herself (UCL??)
Went to Canterbury to get a job- grad placement at Christ's Church university, let her do her job part time and were very accommodating
When left the placement had problems getting jobs, went to a DEA who was very nice but not much use because she was not on benefits
Wasn't getting interviews with two ticks symbol because she had different qualifications than the requirements
Saw a job in the paper for a library assistant at a school that was part-time, but the job wasn't good because they didn't consult her about what she needed and they got her the wrong things also the job was too physical, went to Access to work for a support worker and it didn't go well
Then saw a better job and got it, feels better about handling interviews as far as disability is concerned
When 1st became ill went to a physiotherapist who said that the pain was mental, saw a private physio after this and she recommended activity (couple of hours a day) and the Alexander technique. Eventually found that that she could get treatment on the NHS but had to go through the pain clinic in Canterbury. Now gets acupuncture, does tai chi and water walking as well as CBT (which is great) and other psychological counselling.

Because there was no 'cause' didn't get much help at first, once she was referred to a pain clinic she got a lot more help.
Has seen four doctors who all had different approaches, so she just tried different things till something worked.

Who or what would you say has been the most instrumental in your getting into work and why?
Own determination and willingness to look at herself as well as others. Look at 'victim status' and beyond it, what can I offer, better candidate

Is there anything that you can think of that you wish you had known earlier or something that could have helped you but you were not made aware of it when you needed it?
Not really

If you could make any recommendations on how to help people with disabilities concerning employment, what would they be??
The problem with applying is not really with employer but the applicant thinking it is the employer. Disabled applicants need help to get over themselves, 'the problem is long term unemployment with disability on top of this'

Can you tell me what you know about the following subjects?

DDA: Very familiar, uses it frequently

DEA's: Vaguely familiar with what they do because wasn't eligible

Access to work: Very familiar uses some of it's services

Local support: Royal British Leg??? Industries

Reasonable adjustments: Very, uses some herself

Are there any changes that you needed to make to your workplace, the job, or getting to the job etc. in order for you to work or make work easier for you??

In all jobs has had to work part-time, has a support worker through access to work, a special chair and uses a lower table

Participant: 14

Age: 46-55

Nature and onset of disability:
In teens was blown up in chemical explosion, hospitalised for 1 year with badly injured legs. About 6 months ago had both legs amputated because of infection, now uses a wheelchair

Previous education: Secondary school, college to train as a chef, some certifications and qualifications

Previous work experience: Worked as a chef for some years but because of all the standing this damaged legs more. Was self employed for 11 years but because of illness had to stop. Now works in a bank.

Can you tell me about the history of who you came in contact with and the information that they supplied since the onset of your disability?? If we could do it according to how it occurred i.e. from the first person right through to the present day.
When he was 17 went for interviews with social services board of 8 people but they didn't do anything, because he didn't stay home due to his disability he doesn't get any help.
Medical professionals haven't been able to offer advice.
Bank where he works has been very supportive, always asked if he needed any help. An Occupational Therapist went to his work to see if the environment was accessible but he already knew that it was. Only thing he needed was a chair but it was already there.
They have been good with schedule, never had to worry about anything including money.
Had and operation in February, hospital informed social services that he may need some help but took them 7 months to get an assessment.
When your working you don't get any help, you are better off at home.
Long time ago went to JC+ they interviewed him but didn't do anything for him because he didn't claim any benefits, 'everything is mean tested, if you work there is no access to support but they should offer'
Had adaptations made to car, had to go to a centre in Derby and pay £95 to have it assessed and for him to see if he could use an adapted vehicle. He had to buy an automatic car, because they are the only ones that can be adapted, they sent a report to Bristol and the recommendations were $1500 which he had to pay himself because he was working and he still had to find out if it was compatible.
The NHS provided him with a wheelchair (they maintain them too) but it was very heavy. His OT at the amputee centre and the people at the car adaptation centre told him that he would need a light weight chair to be able to put it in the car. The NHS said they would give him the cost of one of their chairs towards a lightweight chair but it would take 6 months to get an assessment so it could take 7 months to get the chair. Since he was starting work in 3 weeks he had to but it himself.

The OT at the hospital gave him the number for Mediquip ?? to get equipment when he was released from hospital, they provided him with a grabber and a new bed.

Who or what would you say has been the most instrumental in your getting into work and why?
Pride, wants to keep providing for his family

Is there anything that you can think of that you wish you had known earlier or something that could have helped you but you were not made aware of it when you needed it?
Not really, not from a work point of view. He wishes that he would have listened to his GP earlier and gotten amputation earlier, this would have prevented him from getting sick.
He hasn't looked around a lot and the times he has tried to get help they didn't do anything.

If you could make any recommendations on how to help people with disabilities concerning employment, what would they be??
Everyone is different, listen to people and what they can do including jobs and everything around it i.e. opening doors, parking, accessible environments etc.

Can you tell me what you know about the following subjects?

DDA: Sort of familiar has read it, thinks a lot of it is over the top, more than is necessary because some places can't afford to adapt

DEA's: Has seen one before, they did an assessment but never heard from them again

Access to work: has heard of it but not sure about what they do

Local support: Community bus which is accessible

Reasonable adjustments: Not sure

Are there any changes that you needed to make to your workplace, the job, or getting to the job etc. in order for you to work or make work easier for you??
Needs to be wheelchair accessible. Issues have been with carrying a tray in the canteen and needing a fire buddy.

Appendix G – Participant information sheets for Study 2

Participant Information Sheet
Health Conditions and Employment

Who are we and what are we doing?

This research project is being carried out by Loughborough University's Ergonomics and Safety Research Institute to help find ways of getting or keeping people with health conditions in employment. To do this we intend to interview people who assist those with health conditions to determine what issues are faced by disabled people. From a previous study it was determined that Disability Employment Advisors are usually a key part of this system and we therefore consider you an important stakeholder.

Who are we looking for?

If you work directly with disabled people who wish to find or retain employment, then your viewpoint can help us to make recommendations on how we can support them. If you are willing to participate in this project you would be playing a valuable role in finding a solution to the problems faced by disabled people in the workplace.

What is involved?

All that is required is your participation in a focus group for approximately 30 -40 minutes. During this time you will be asked some questions about your experiences of helping those with disabilities to look for or retain jobs. Additionally we are interested to know how you feel that things could be improved.

What happens to the information?

At no time will your name be recorded with the information you have supplied. You will be assigned a number for data collection purposes and therefore will remain anonymous. Your personal records will be held on a computer that is password protected so that only authorised members of the university may gain access. All notes will be stored in a secure location and destroyed within 5 years of the end of the study.

Can you stop the interview?

You have the right to withdraw from this study at any stage for any reason, and you will not be asked to explain your reasons for withdrawing.

Who do I contact?

The person in charge of carrying out this study is Nadine Geddes BPEd, MSc. at Loughborough University. If you have any questions about this study or would like to contact the researcher for any reason you can do so by calling: 07817 049 087 or emailing: n.l.geddes@lboro.ac.uk

Appendix H – Interview questions for Study 2

Focus Group questions

Clients

- Where do your referrals come from?
- What information do clients usually come looking for?
- Where do you get this information from?
- Is there any type of information that you have difficulty locating?
- Is there any particular information that you frequently provide to your clients in addition to what they initially come to you for?
- Where do you get this information from?
- Do you frequently refer people on to other organisations or individuals? If yes then who?
- How many people would you say are looking for information on retaining their jobs as opposed to looking for a job?
- What is your experience with people who have been let go of by their employers and what was the main reason for it?
- What are the most common disabilities that you deal with?

Delivery of information

- What information do you most often find yourself looking for wishing that you had?
- Are there any particular sources of information that you find useful, why?
- Are there any particular support organisations that you find useful, why?
- Are you aware of or belong to any groups that network or knowledge share information that you find useful?
- If you can think back to what you knew when you started as a XX (this depended on the group) and what you know now, what type of information

do you feel you have accumulated on your own and where did this information come from?

Ergonomics

- What is your level of involvement when a client requires a workplace solution or reasonable adjustment?
- What is the most common workplace solution or reasonable adjustment that your clients require?
- What experience do you have with Access to Work or other organisations that offer support with reasonable adjustments?

Explanation of project: I am currently involved with developing a tool that will supply information on various topics related to disability and employment. The tool is being designed to support the information needs of professionals such as you.

Tool design

- What information do you think should be included?
- What information would help you to do your job?
- What do you think about the following delivery methods:

-Service based – another person who answers questions, training course
- Paper based - directory style book
- Electronic based – either software or internet

- How often would you use it?

Issues encountered

- What do you think is the most frustrating part of your job?
- What can be done to improve it?

Appendix I – Examples of interview transcripts for Study 2

Focus group – 8 Disability Employment Advisors, one occupational psychologist March 21st/06

Que:
where would you say most of your referrals come from?
Ans:
F2- most are internal, from JC+ advisors, next would come occupational therapists, CPn's key workers from various mental health organisations, other forms of social work mental and physical. About 10-15% are self referred they have vaguely heard that I exist and they get a number from someware.

Que:
So quite a lot from para-medical professionals, what about doctors?
Ans:
General laughter
Que:
Do you get some?
Ans:
General nods and some agree
Que:
Do you find that there are some general referrals or that just certain doctors will tend to recommend people to you?
Ans:
F1- The odd ones
M3 – I get a few
M2 – its in the early stages so at the moment we are just getting a few interactions from GP's

Que:
Do you think that it's something that will change
M2- when I say early stages I mean that there has been quite a lot of discussion regarding GP's coming more on-board, talking to people about the value of work, in the medical centres and the surgeries generally. I think that it is really in its infancy because there seems to be a lot of opposition to that from the GPs, but having said that I am getting some interactions from some of them but that really is quite a few (meaning low).

Que:
the other thing that you said was about some of the mental health groups.
Ans:

F2-that would be either the local PCT or some of the volunteer organizations like Rethink, on the learning disabilities side you've got some of the local groups that do both learning disabilities and mental health, there is one called Daffodil and there are like a branch of national organisations. They are often not really understanding what they are asking us but with an open mind to find out more.

Que:
What would you say that sticks out in your mind and working your way down, what information do clients come looking for?
Ans:
F3- it is usually around benefits, job, training

Que:
So when you say jobs and training, specifically are looking for jobs that people with a specific disability can do or do they say I need a job?
Ans:
General nod and agreement with the latter
Ans:
M3 - some of the people with learning disabilities they ask us to prepare them

Que:
is that sort of like support with CV's and things like that?
Ans:
M3 – no it is proper training for a job, I have done a few with the OP we did the work preparation (WorkPrep) and we sent them to??
M1 – One thing about referrals, one area that the DEA's work is retention work so a referral there would come from an employer or they come from the employee themselves

Que:
what would you say would be the percentage of the retention compared to out of work?
Ans:
F2 – tiny
M2- 5-8 %
F2- it varies across the patch, some places have many employers who are aware that we could help with retention and were actively interested in the support. Where I am now the council are actively interested in the support but in general when the contact has come from and employee and the employer has been suspicious that I am not there to judge, and that I am there to support the client.
M2- very often that retention in put allows us the opportunity to mention the Disability Discrimination Act, it is followed by a very flurry of activity to be seen to be complying with that but also getting around it as well.

Que:
when you mention the DDA do you find that you get a good response? I know you said a flurry of activity but what reaction do you get?
Ans:

M2- a flurry of activity followed by a deafening silence it depends on how large the organisation is, if they have an HR department, then a team leader, then a manager, then someone else it becomes bureaucratised. You feel that by the time you have gotten them that far and very politely mention reasonable adjustments and ask them what efforts are you making and say 'you realise this is a requirement of the disabilities discrimination act' the response doesn't seem to be very empathic along the lines of let's see what we can do for this particular employee, It's more 'well we better do a, b, and c or we will get in trouble with the law' and you can read between the lines when you respond maybe to give them a phone call but each situation is different
M5- I find people get very defensive very quickly
M2- but that is more the small ones, the ones with an HR department are the ones that can find a way if they do not wish to comply with us, some justifiable reason within their contract.

Que:
We were talking about the information that your clients come looking for, generally where does this information come from? Where do you get the information about jobs or benefits?
Ans:
F2- years of doing it
M4- some things are on the system
M5- jobs we get on the jobs database and the newspaper and any employers that you might be in touch with through the symbol and whatever. The disability information is in the training we get.

Que:
What does the training cover?
Ans:
M5 - anything mental health, we have visual impairment and deaf impairment training, some of us older DEA's have had formal training on epilepsy and diabetes and so on
F2 - the amount of training depends very much on when you started, I had 3 separate weeks of very attitudinal based training done by very specialist organisations and those that have been doing it longer than me have had even more training and the babies (newer DEA's) probably only had two or three days.

Que:
is there any specific information that you can think of that you have a really hard time locating?
Ans:
M2 - well there isn't information as such is it more linking for what is going on with the customer and other issues like benefits and such. Also just to come back to the referrals area in addition we receive referrals from the governments new deal program, there are customers who are on job seekers allowance who come up to the length of time of their claim and there is more of an urgency for them to get work and if the main stream providers can deal with the client or are perceived as not being able to take part in mandatory

options then they are referred over to us so there is an issue of motivation there as well and finding information on providers as well to do with that
F2 - I think in terms of finding information and what M was saying about linking jobs or training up benefits, understanding the rules up in theory is relatively easy you know where to look, it's when you get a complicated case getting anybody to say...you ring up with a hypothetical question 'in these circumstances what would be the affect on benefit'. I had a client that has very severe learning difficulties and nobody had thought to tell him that he needed to declare his supported part-time work, which is about £5000 but it is not his fault he didn't even know how to frame the question because of his disabilities. I called the benefits processing centre to find out the outcome and all they were interested in was suspending his claim as opposed to actually telling me how it is going to affect this person's life. The link up between theory and reality is where the information is missing, it is also when a persons wants training that tick the boxes, its trying to fit it in the wrong hole.

Que:
so it is the customised information
Ans:
M2 - also what I think is important to say is that the lack of support we get from the team leaders and managers, it's not an excuse not have a go but is it's a targeted environment and they are very concerned with crossing t's and dotting i's, rather than being aware of the intricacies and complexities that some customers may have and be able to advise a course, that is almost not there at all and it very irritating, so that would come under information. We don't want people sticking there noses in every five minutes but we don't have that support it is only stats and figures. For the advisors who are seeing people in front of us, although we have each other but each office is different, you can be alone with that. You can be in the middle of something really complex, either you've got them a job or your dealing with their issues and someone comes over and says 'oh you didn't tick this box' which to be honest is all they have time to do. So this what happens to the information that is quite relevant
F1 - the other thing I think in our office particularly is that in the seating area where we are actually seeing clients, who often they want to talk about sensitive issues and I feel need that little bit of privacy or need space away from the main stream and it doesn't happen we are right in reception and it is absolute bedlam and I have a client who is telling me what happened and they get upset and emotional or someone with a learning disability or mental health and you've got someone else there shouting and screaming because they haven't got their money. It's hard that they don't have the right sort of setting
M2 - if however you were to mention that in whatever form that you can, we all deal with difficult clients
M3 - like they said if we are dealing with difficult customers and we need to get in touch with the benefits processing centre, that makes it hard for us because on the other side they are not helpful at all you can't get through. I had a customer the other day he said 'go ahead and contact them you won't get through' I was going through 1111 (the menu) and I was literally with that customer for almost 2 hours, I got through and they said 'no you know what

you have to do you have to speak to so and so' I said please put yourself in the customers position, he had had his benefits stopped since January (now March) he was on Incap but failed his PCA (personal capability assessment) then he was asked to claim Job seekers which he did then he appealed again so time was lost and everyone stopped his benefit and he is not getting the money. So the communication system should be easier to contact the staff

Que:
Do you refer clients onto other people frequently?
Ans:
F2 - yeah M1 (the occupational psychologist) again if we come back to the concept of specialised training we are more and more reliant on local partnerships and less on systemised contracted staff because with the exception of what has been funded nationally it has just been cut out from under us, so in terms of looking for information constantly the client comes to us with information on a provider and it no longer exists. They want to go and do something but they can't afford to pay the fee so we end up going for a less tailored course because it is free, it doesn't matter if it is a less appropriate course as long as it is funded. So in terms of who we refer to it is very much in a state of flux at the moment.

Que:
Would you say that it also depends on how long you have been in the business?
Ans:
F3 -a lot depends on the area and also on personality, we have contracted training providers and speaking for myself, for instance I sat in a meeting two years ago and I was the one who announced that a particular adviser had resigned from one of the training providers and everyone in the room said 'oh I am not referring to that company anymore because I only trusted that adviser'. It is very much about the fact that we know our partnership organisations and that we trust the contracted provider, sometimes we follow the advisers not the contractors.
M2 -Some are good some not so good, the standard of the providers is not very high.
M5 -There are also differenced between local authorities, one might be willing to offer better services for people with disabilities and another might not be. You also get various specialist programs that are targeted at that particular area with things like training for technology but it depends on the post code
F2 -Geography comes into it other ways as well, in one area I was in they had very good public transport and the rides they could use were a lot more various, but in another area depending on where you were you might only get a bus every hour and for example one of our best providers were quite far away and if you are someone with a learning difficulty it is a complicated route and if you can't pay for travel training than how does that person get there
M5 -there is also the difference of the eligibility with the different programs, some of the programs I have deferred to have instant access others you have to wait 6 months, if they are on benefit or what benefit they are on, unless they are one the right benefit for the right amount of time they can't access the program

M2 -and also the local providers whether they are paid by us or they get funding from elsewhere they tend to be accountable in terms of outcomes so in that way they would be inclined to cherry pick who they see which is those that are most likely to get a job or outcome of some sort, that inevitably excludes a lot of people who are the most disadvantaged
F2 -in some ways that has gotten better ESF though because they concentrate on more soft outcomes, a lot of the programs funded by ESF are targeting soft outcomes as well as getting someone into a job
M2 -take Fern for example that was one of the providers I was using and within 5 minutes they were closing. We were sending quite a lot of people there and then the manager from there came in to address us at a monthly meeting and told us that we weren't sending them the right people, and when we asked about that he said 'we are looking for job ready people'. Some of the people at that Job centre were quite vocal and gave them a hard time over this and said well then we don't need you. What they mean is that anyone with difficulties they don't want to see because they can't get an outcome from them. Behind all the rhetoric there is an accountability because of the funding because they have to prove how many people that they get into work

Que:
What would you say is the most common disabilities that you deal with are?
Ans:
F3, M4, M5 -mental health
M2 -particularly depression and anxiety
M5 -often I find the deaf are among the most disadvantaged when trying to get a job, most employers will not consider taking on someone with communication difficulties where they might be more willing to take on a blind person because the main question is how am I going to communicate? How am I going to tell them what I want? What to do? How are they going to hear the fire alarms?

Que:
We have already been over this a bit but what has been your experience with people who have been let go of by their employers and what was the main reason for it?
Ans:
F3 -often they guilt them into leaving, they say 'you have been off sick for two years we can't hold your job for you anymore'
M5 -I think that it is not that clear cut that they are getting rid of them for having a disability because that would be a clear breach of the DDA, I think they just get classed as redundant
M4 -I dealt with a woman last week who the employer was supposed to find her another job and she has got anxiety and eventually they told her she was supposed to resign
F2 -there is a fine line between we will go down the occupational health path but we can't solve it that way and they can't pressure them out of the job so will go down the disciplinary route and when you look at there has never been a breach of discipline
M5 -we only hear the one side though and we will hear the side they want us to hear, we can't hear the employers side and if they have tried to make a

reasonable adjustment or if it was good enough so I think we have got to be careful
F2 -I have done quite a few retention cases that I thought would work out, but what happens with retention cases is that if they bring us in when there is first a problem it will work, if they bring us in after someone has had a fight about it there is little you can do. I have had managers turn around and say to me 'I haven't got a choice, the only way I can solve this is I need to get rid of this person or else my manager is going to have my head' and if they can't do it with whatever you need to go down the disciplinary route
M2 -at least they are being honest in telling you that I have come across some who are not doing that but it was made more difficult because the person came to me later in the day when the employer and employee relationship had already broken down so that makes it very difficult
M5 -retention is very different because you have got to have a meeting of the mind you have often got someone on one hand who wants to get out and wants to get the best package that they can or you have got an employer who wants to get the client out and if the two are not willing to think of compromising ways of working together than you are wasting your time
M2 -I just remind them about the reasonable adjustments and ask them to tell me what reasonable adjustment that they have made, that usually gets them moving in terms of doing something about it if they haven't already done it or saying what they have done but all we can do is point out the loyalty to them and not be seen to be on any particular side
M4 -I always find problems with retention because you always have three parties involved ...inaudible
M2 -the other thing that we have is that because the management system is target orientated they tend to be more concerned with the crossing T's and dotting I's if you are with your latest job entry but with retention, as the other person said lines can often be blurred between with starting off as sickness and becoming disciplinary and I have had a case where a customer has asked me to attend the initial sick meeting but then when it turned into disciplinary it was shock horror 'don't get involved' and again it is partly their (the JC+ management) lack of understanding and interest, so it is not a priority at all
M5 - we are not told to get involved in retention we are told to get people off benefits and into work, the activity of keeping them off benefits in the first place in other words keeping them in employment that is not seen particularly as a target or priority
M2 - I have heard that that might come in
M5 - we are focused on job entries that are going to become job outcomes in the future, we are going to get you off benefit and into work
M2 - it is not really included in SSP (?) remit and until some minister comes along and says we can save such and such an amount of money by trying to keep people from claiming benefits in the first place, we will then being doing more of that. What concerns me is that if it comes down to being a chore for some manager out there rather than they having the interest in the difficulties surrounding it and the anxieties that people have with dealing with it because each one has their own agenda and we are in the middle of it
M5 -some time ago my disability services manager took the wider view of helping people with disabilities find work, help keep people in work, educate

employers about disability at work with the dda ect. But this became disbanded when it became job centre managed, who are very focused on getting people jobs and they didn't particularly take on board the other roles we had of keeping people in work or of educating the employers

Que:
Is there any kind of information that you are constantly wishing that you had?
Ans:
M5 - more training provision
M2 - I would like to know more about what is planned to get employers on board to take on more people with health issues, I understand that there is an employers forum however our experience here is that employers have a checklist of the person that they want and it is shiny happy people, one provided has quoted me as saying that with particularly retail they want blood so for some of our clients with anxiety and depression particularly they are not going to be one of these shiny happy multi-faceted individuals that can do everything but because the employers market has moved that way because they are all targeted and looking at the profits and how they can be more competitive, this is the sort of person that they want. So on one hand you have that and on the other you have got all this rhetoric about getting people into work, so we need to know exactly what it is they are doing to educate employers to take them on because at the moment I don't have confidence that is happening
M5 - I think what would help towards getting employers to take people on some financial support because I think at the moment employers think they have ended up with the DDA and they have got to take people with disabilities and suffer whatever losses they might incur or subsidy or shorten production but I think that employers could work with some financial incentive to take people on, that might encourage them to make more adjustments

Que:
Are there any sources of information that you frequently use?
Ans:
M5 - the internet to look up information on disabilities and conditions
F2 - Google, that saddens me when it comes to it because we have a subscription to a pharmacological website but I don't actually understand it, so I Google everything and you end up with a lot of self help type websites
F3 - lets not forget when I first started I didn't have access to the internet, it was only 4 ½ years ago
M5 - thank goodness for that
M2 - you can do an intranet search on the DWP's website but most people use the internet

Que:
What about particular support organisations, we kind of talked about this in the beginning with people who refer people to you, is there any particular ones that you use?
Ans:
F2 -Richmond fellowship trust
F3 -Mencap

M2 - Occupational therapist at the Hedgecock centre in Barking
F2 - Social workers are getting a lot better
F3- Often again it comes down to personalities
M2 -We are often trying to get them to answer our questions about benefits and housing and stuff like that, but they come to us with somebody who is ready to engage in work which is fine but they are completely at sea with people benefits and what they could do because of the large housing benefits, so we spend a lot of time indirectly education them, they don't seem to have any of that in-house training
F2 - I think when I started is was much more of an enemy situation I need to interact with this organisation but they are going to give me grief, there is a lot more exchange of education, I get educated by the social workers as much as I educate them now whereas before a social worker would come and say 'your not doing your job properly because this persons benefits are wrong', now I am more open to find out what they are about as well
M5 - I would just like to point out that we have not mentioned Remploy, the biggest disabled....
F2 - I wouldn't waste my breath on Remploy
M5 - That is exactly my point the biggest disabled provider and nobody has mentioned Remploy

Que:
Are any of you aware of or belong to any of the network or knowledge sharing groups, other than this do you belong to any outside organisations?
Ans:
F2 - We get emails from Glad
M5 - I attend a regional meeting for the DEA's as a representative
F3 - we are on a strategic committee
M5 -from time to time we get provided come and address us
F3 -disability supplements for learning disabilities
M5 -some information is cascaded down from management
F3 -we probably get the most useful information from ourselves because we find out something and share it
F2 - and the operational partners

Que:
what would you say is your level of involvement when client requires a workplace solution or reasonable adjustment?
Ans:
M5 -we used to be involved with that initial Access to Work visit, but now we just refer the client to a call centre
F2 -I can't say that is true because I actually do go and talk to the employer about reasonable adjustments what they need and they get the client to ring up Access to Work after we have done that
M2 -it's barge pole time isn't it??
M5 -to be honest we aren't told to do Access to Work now and we have no time to do it
F2- not that long ago we were told that we did not need to do that initial part because we were expensive form fillers because the application forms could easily be done by the client

F3 -if the client is capable of knowing what they need they do go in say 'if you do this would it not make it easier' and they see, it could be the difference between whether they stay in the job for 6 weeks or 6 years
M5 -we are the eyes and ears and we can see the potential problems for instance the doors might not open, or the desk or the fire doors or how the person is going to cope with a mobility issue, those were the sort of things we were picking up

Que:
are those the things that you just learned as you go along?
Ans:
M5 -no we had Access to Work training
F2 -but there was a definite cut off period because I started 5 years ago and I have never had any ergonomic training, I have picked it up and most of my Access to Work interactions is monitoring where there is certain date turn around times, the client makes a request and they should have X done by 10 days or Y done by 20 days and if it is not done I email or telephone the new business manager to see what is going on. Any ergonomics I have picked up, I've picked up and I am lucky because my sister is an occupational therapist but anybody else you pick it up as you go along
M5-in the good old days our Access to Work was in our area, we had monthly meetings and if we had issues we had someone to talk to now it is all done through the call centre
F3 -we are not even encouraged to go to places like ?? (an assistive tech exhibition) when it was in London to see what kinds of kit are available
F2 -my one bit of ergonomics training was we had half a day where came and brought bits of kit and said have a play
F3 -'this is a light monitor, this is what it does' or else you wouldn't know what it is or what it does and you wouldn't be able to explain it to someone who could use it
M2 -as time goes on there is a lot of new DEA's and they haven't say they haven't got a clue and they don't see themselves as any different from any other adviser, so that must affect the outcomes of people going into work or staying in work
M5 -my old manager was overseeing Access to Work and the DEA's so we worked together
F3 -then it is a more natural progress, if you got somebody into work you would fill in the paperwork and can follow it up with colleagues that you saw every month
M5 -Also you were aware that if it was a successful outcome that they got everything they wanted and they were happy you could call the employer up comfortable with the knowledge that he was happy and you could keep the door open to get another job there

Que:
anything you found as a common reasonable adjustment?
Ans:
F3 - usually a special chair and employers are getting to the point now that they are willing to look at the desk and say ok you need a foot rest and a special chair

M5 -I think the biggest thing is an adjustment to the person's time or need time off to go to hospital, that is the most common one
F2 - if you are talking about equipment than probably chairs and things
M4 - pc's as well and lighting
F2 - a lot of IT adaptations and occasional bits of software but normally bits of hardware
F3 -disabled people themselves have a stronger knowledge of what they can use because they have used it in the school or college and they know they need Zoom Text or whatever

Explanation of project – databasing of information on solutions for people with disabilities in the workplace.

Que:
How would you want the information presented? If I gave you a directory of the information or a gave you a database which would be better?
Ans:
All - On the internet

Que: What about a service? If you could call up to ask questions?
Ans:
F2 - that would depend on how experienced that person was
F3 -would depend on if you are paying for it
F2 -any information service is only as good as the way the information is presented, as soon you interact with a human being....the more experienced you become also the more complacent you become, with an IT database it is more definitive, it is not as flexible but it is more definitive, also the more experienced you become the more there is to forget

Que:
What information do you think should be included? Mainly coming from the more experienced people here what do you wish you would have known or what information do you wish you would have had access to when you started?
Ans:
F3 –what software is available I would have like to have known for example when I had a visually impaired individual what kind of text software is available
F2 - still my biggest problem is around a support worker or something more abstract and I still don't know what is funded and what works
F3 -organisations that we could go to
M5 -it would be helpful to know what businesses are in the area for example what warehouses are around etc.
F2 -especially disability friendly, we have talked time and time again about the DDA and different employer schemes and symbols but how much of that is real and how much is lip service. When we go out and do our symbol visits it is taken me now on 3 years to be convinced that they actually read the material and that they are not just doing it because it looks good on a job advert. But that would be difficult to database because if depends on so many things and how things are at the time

Que:
If you had access to a database with information about equipment, products, services how often would you use it?
Ans:
F2 - a couple of times a day
M4 -depending on your client base several times a week
F1 -if it is exchanging everyday something that is different, something that you haven't seen or heard of before, you know so something that was there last week for somebody that is not there this week, like IT training, it is difficult to find something when the client is right there in front of you because you want them to do something that is positive and you don't know if it is under new management or whatever so if you had that type of information you could help the client faster.

Que: so a database could help you with that if you had a section for training provider, resources ...
Ans:
M1 -If you could have a database like that but you were asked to update it would you be willing to do that (question addressed to the group from team leader)
F2 -what would be really nice feature is, you know how you can set our system so that it will tell you what is new since yesterday....ability to see what was new since it was last updated rather than having to troll through and notice that something has changed
F3 -so we would give feedback and say something like 'it wasn't what it was actually billed as'

Que:
so if you could just send a message would you do that?
Ans:
M5 -there would be issues about the accuracy of the liveness
F2 -the only difficulty we would have with that is how many time have we been asked to do surveys or give feedback to external organisations and the department has said you can't do that because it is your personal opinion

Que:
what if it was anonymous or if it was just to give information?
Ans:
F2 -it may be anonymous to you but the department can track all our emails and all our website information as well
M5 -if you have got a particular program which you have had a bad experience with in the past because of client it may not be the program it could have just been that it was not right for that client, so you do not want to pass an adverse opinion based on one person's opinion
F3 - isn't that why our partnership always look to see if the providers are doing what they are supposed to
M5 -that is checking it where they are allowed to participate, if you just put it onto a database there is no one to defend it

Q: I think what we would be looking at is just when you want to say that there is a new program or there is a new piece of kit
F2 - or this program is full now

Camera starts to beep....researcher says that is about it
M5 -what I worry about now is information overload, because we have enough information over there as it is
F2 -the thing is with a database you don't have to remember you just have to know where it is
M5 -we have the intranet with a beautiful database and we still don't have anything on it
F1 -I feel that when I have that customer there in front of me I want to move them forward and it would be good if I can
F2 - the point that X made about the difference between intralink and Google comes to play it is not just about the information it is the format it has to be an excellent service provider and it has to be reach that level of ease of use and that is pretty high to create something, that is a pretty high aim

Appendix J – AbilityMatch Questions

HEARING & COMMUNICATION

If a job involved hearing, could you do that?

Yes	
Yes, but...	1. My hearing is limited 2. I use a hearing aid 3. Only clearly in one ear 4. I cannot hear clearly when there is background noise 5. As long as people speak one at a time 6. I have ringing in my ears 7. It depends on the surroundings 8. As long as I have some support 9. Other
No	

Examples: hearing speech or alarms, detecting machine faults.

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

Yes	
Yes, but...	1. I can only hear them with assistance (hearing aid etc) 2. It depends on the type of sounds 3. It depends on the direction of the sounds 4. It depends on the volume of the sounds 5. It depends on the surroundings 6. It can trigger a reaction 7. It depends how I am feeling at the time 8. Other
No	

Examples: sirens, machine malfunction (e.g. photocopier jam), warning signals (e.g. fork lift truck, lorry reversing).

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 finding the right words 4. I have difficulty expressing myself 5. I sometimes say the wrong things 6. As long as I have some support 7. It depends how much pressure there is 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

Examples: Talking on the telephone, taking part in meetings, helping customers. Consider the need to understand and to be understood, either by speech and hearing, lip-reading and signing or other method.

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 on the size of the writing 6. It depends how long I have to do it 7. As long as it is not too tiring 8. As long as I have some support 9. It depends how I am feeling at the time 10. Other
No	

Examples: Text in a book, signs, safety information, labels on a machine, handwriting.

If a job involved writing, could you do that?

Yes	
Yes, but...	1. I can write but its not very clear 2. It depends how much I have to write 3. I can only do it slowly 4. As long as I can pace myself 5. My spelling isn't very good 6. I cannot use a pen or pencil 7. It depends how often I have to do it 8. As long as I have some support 9. It depends how I am feeling at the time 10. Other
No	

Examples: Signing a delivery note, phone messages, taking minutes in a meeting.

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

Yes	
Yes, but...	1. Only small numbers 2. Only simple calculations 3. As long as I can use a calculator 4. I can count, but not calculate 5. I can recognise and match numbers 6. As long as I use them regularly 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Examples: Adding up, telephone numbers, setting controls, using spreadsheets

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

Yes	
Yes, but...	1. I have limited movement in my arms 2. I can only use simple signals 3. I would use a different technique 4. I can but I'm not meant to 5. As long as it is not too tiring 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

Examples: Sign language, gestures, directing traffic, guiding lorries into parking bays.

VISION & PERCEPTION

Gatekeeper 1: Do you have any vision at all?

	Yes
	No

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

Yes	
Yes, but...	1. I have limited vision 2. Only with glasses / lenses etc 3. Only with one eye 4. I would have to be very close 5. I would use a different sense 6. It depends on the surroundings 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	

Examples: Seeing to thread a needle, circuit board assembly, checking a label.

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

Yes	
Yes, but...	1. I have limited vision 2. Only with glasses / lenses etc 3. Only with one eye 4. It depends on the distance 5. I would use a different sense 6. It depends on the surroundings 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	

Examples: Looking across a room, playing sport, monitoring the activities of a class of children, driving.

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

Yes	
Yes, but...	1. I have limited vision 2. Only with glasses / lenses etc 3. Only with one eye 4. I would use a different sense 5. It depends on the surroundings 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	

Examples: Being aware of activities around you, staffing a busy reception, pushing a shopping trolley.

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

Yes	
Yes, but...	1. I have limited colour vision 2. Only with glasses / lenses etc 3. Only with special equipment 4. I would have to be very close 5. It depends on the surroundings 6. Other
No	

Examples: Printing, matching paint colours, comparing fabrics.

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

Yes	
Yes, but...	1. I have limited vision 2. Only with glasses / lenses etc 3. I would have to be very close 4. I would use a different sense 5. I could only do it slowly (check wording) 6. It depends on the surroundings 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Examples: Loading a dishwasher, laying a table, folding and storing towels, shelf stacking.

If a job involved using depth perception, could you do that?

Yes	
Yes, but...	1. I have limited depth perception 2. Only with glasses / lenses etc

	3. I would have to be very close 4. I could only do it slowly 5. I would use a different sense 6. It depends on the surroundings 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Examples: Positioning an object in correct place on a machine, operating a lathe, manoeuvring a trolley jack.

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

Yes	
Yes, but...	1. I have limited vision 2. Only with glasses / lenses etc 3. I would have to be very close 4. It depends on the speed of the objects 5. It depends on the surroundings 6. I would use a different sense 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Examples: Crossing a road in traffic, watching a moving dial, conveyor belt

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

Yes	
Yes, but...	1. Only with glasses / lenses etc 2. It depends on the pattern 3. It depends how long I have to do it 4. I cannot recognise patterns visually 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	

Examples: Laying block paving, inspection tasks, hanging wallpaper.

POSTURE

If a job involved standing, could you do that?

Yes	
Yes, but...	1. I can only stand for a short time 2. I have to sit down regularly 3. I have to move around and change my position 4. I need assistance (e.g. hold onto something, crutches, sticks, rails) 5. It depends what I have to do when I'm standing 6. I need help to get into the standing position 7. As long as it is not too tiring 8. I can but I'm not meant to 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 need a seat with arm support 3. I would sit in my own wheelchair 4. I have to move about regularly 5. I can only do it for a limited period of time 6. I 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 up high, could you do that?

Yes	
Yes, but...	1. Only with limited movement 2. It depends on what I have to do 3. I can only stretch out one arm 4. Only with a limited weight or force 5. As long as it is not too tiring 6. I can only do it for a short time 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	

Examples: reaching to a shelf out of children's reach, stacking shelves, pruning trees.

If a job involved working with your hands above your head, could you do that?

Yes	
Yes, but...	Only with limited movement It depends on what I have to do I can only stretch out one arm Only with a limited weight or force As long as it is not too tiring I can only do it for a short time I can but I'm not meant to It depends how often I have to do it It depends how I am feeling at the time Other
No	

Examples: Painting ceilings, changing a ceiling light bulb.

If a job involved reaching down low, could you do that?

Yes	
Yes, but...	1. I have limited movement 2. I need to hold onto something 3. I would do it from my wheelchair 4. I need assistance to get back up again 5. I can only do it for short periods 6. As long as it is not too tiring 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	

Examples: shelf filling, warehouse work, looking after children, carpet fitting.

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

Yes	
Yes, but...	1. I have limited movement 2. I need assistance to get back up again 3. I don't like being in confined spaces 4. As long as it is not too tiring 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	

Examples: Plumbing, motor mechanics, pulling out a plug. Consider need to reach under desks, get access to equipment, use access tunnels etc.

If a job involved bending your back, could you do that?

Yes	
Yes, but...	1. It depends on what I have to do 2. It depends on how far I have to bend 3. It depends on the direction I have to bend

	4. I can only do it for short periods 5. It would be painful 6. As long as it is not too tiring 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	

Examples: Vegetable preparation, filing, care assistant, washing up.

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

Yes	
Yes, but...	1. I have to hold on 2. I can only do it when sitting 3. I can only do it when standing 4. I can only do it for short periods 5. It depends on the direction I have to lean 6. As long as it is not too tiring 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	

Examples: Making a bed, weeding, car mechanic. Consider the need to maintain balance.

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

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

Examples: Working on a production line, supermarket checkout operator. Consider whether twisting the trunk is vital to reach objects behind you.

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

Yes	
Yes, but...	1. I have limited movement 2. I have limited vision 3. It would be painful 4. It depends how quickly I have to do it 5. As long as it is not too tiring

	6. I can but I'm not meant to 7. It can trigger a reaction 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

Examples: CCTV operator, tennis referee, school crossing patrol.

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

Yes	
Yes, but...	1. I have limited movement 2. I can only make minor changes to my posture 3. I would need assistance (e.g. hold onto something, crutches, sticks, rails) 4. It depends how quickly I have to do it 5. I can but I'm not meant to 6. It may trigger a reaction 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Examples: Teaching, care assistance, shelf filling, gardening.

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. As long as it is not too tiring 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	

Examples: Nursing, warehouse work, supermarket checkout operator, airport baggage handler.

If a job involved carrying, could you do that?

Yes	
Yes, but...	1. I can only carry light things 2. It depends on the size of the item 3. It depends how far I have to carry things 4. It depends on the position of the load 5. As long as it is not too tiring 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	

Examples: Waiter, porter, factory work, postal worker.

Movement

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

Yes	
Yes, but...	1. It depends how far I have to go 2. It depends where I have to go 3. I would need assistance (crutches, sticks, rails, long cane) 4. I have to hold onto something 5. Only in a motorised wheelchair 6. As long as it is not too tiring 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Examples: Hotel housekeeping assistant, moving from one office to another.

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

Yes	
Yes, but...	1. It depends on the width of the space 2. I cannot move obstacles out of my way 3. I would need assistance (crutches, sticks, rails, long cane) 4. I have to hold onto something 5. Only in a narrow wheelchair 6. Only in good lighting conditions 7. As long as it is not too tiring 8. It depends how I am feeling at the time 9. Other
No	

Examples: Narrow passageways, busy kitchens, untidy offices. Consider requirements of wheelchair, walking frame, crutches.

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

Yes	
Yes, but...	1. It depends on the type of slope or ramp 2. It depends on the gradient 3. I can only go up slopes or ramps 4. I can only go down slopes or ramps 5. It depends on the ground conditions 6. Only in a motorised wheelchair 7. As long as it is not too tiring 8. It depends how often I have to do it 9. It depends how I am feeling at the time

	10. Other
No	

Examples: Wheelchair ramps, speed humps, hills, car parks.

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 up stairs 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	

Examples: Steps into a building, staircases.

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

Yes	
Yes, but...	1. It depends on the ladder 2. It depends how high it was 3. It depends on whether I have to carry anything 4. I can do it slowly 5. I am afraid of heights 6. I am not meant to work at heights 7. As long as it is not too tiring 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

Examples: Sales assistant, window cleaner.

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

Yes	
Yes, but...	1. It depends how high it was 2. It depends on what I was standing on 3. It depends on where it is 4. I can work at heights, but would need assistance to get there (e.g. a lift) 5. I am afraid of heights 6. I can but I'm not meant to 7. As long as it is not too tiring 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

Examples: Loading lorries, construction work, painting, maintaining a roof.

If a job involved walking, could you do that?

Yes	
Yes, but...	1. I can only walk short distances 2. I cannot walk on rough ground easily 3. I cannot walk on smooth / polished surfaces easily 4. I need assistance with walking (crutches, sticks, rails, long cane) 5. It would be painful 6. I can but I'm not meant to 7. As long as it is not too tiring 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

Examples: Gardening, farming, meter reading. Consider the need to *actually walk*, not the need to be mobile.

If a job involved travelling, could you do that?

Yes	
Yes, but...	1. It depends how far I have to go 2. It depends on the mode of transport 3. I cannot stay away from home overnight 4. I can only travel with someone else 5. As long as I have some support 6. I can but I'm not meant to 7. As long as it is not too tiring 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

Examples: Going from one site to another, sales representative visiting customers, making deliveries, being a passenger in a car.

If a job involved driving, could you do that?

Yes	
Yes, but...	1. I would need to be taught 2. I would have to use an adapted vehicle 3. I cannot do it on my own 4. It depends how far I have to go 5. I can but I'm not meant to 6. As long as it is not too tiring 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Examples: Car, tractor, forklift truck.

LEGS

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 can move my leg but not my foot 3. I can move my foot but not my leg 4. I have to hold on to something to support me 5. I can but I'm not meant to 6. As long as it is not too tiring 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Consider the need to operate a foot control which can only be reached from the right side of the machine.

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 can move my leg but not my foot 3. I can move my foot but not my leg 4. I have to hold on to something to support me 5. I can but I'm not meant to 6. As long as it is not too tiring 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Consider the need to operate a foot control which can only be reached from the left side of the machine.

ARMS

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 / 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	

Consider the need to operate a hand control which can only be reached from the right side of the machine.

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 / 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	

Consider the need to operate a hand control which can only be reached from the left side of the machine.

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 can only stretch out one arm 4. I could only do it for a short time 5. I can but I'm not meant to 6. As long as it is not too tiring 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Examples: Painting and decorating, joinery, glazier, warehouse work, garden pruning.

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

Yes	
Yes, but...	1. My 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 can but I'm not meant to 7. As long as it is not too tiring 8. It depends how often I have to do it

	9. It depends how I am feeling at the time 10. Other
No	

Examples: Bar work, juggling, supermarket checkout operator.

If a job involved gripping, could you do that?

Yes	
Yes, but...	1. My grip is not very firm 2. I can only grip for a short time 3. It depends how hard I have to grip 4. I can grip with one hand only 5. I wouldn't use my hands 6. I can but I'm not meant to 7. As long as it is not too tiring 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

Examples: Using hand tools, opening screw top bottles, washing up.

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

Yes	
Yes, but...	1. I can only do it for a short time 2. I need something to support me 3. I cannot manipulate very small things 4. It depends how fast I had to do it 5. I can only use one hand 6. I wouldn't use my hands 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	

Examples: Packing, assembly, using keys, hairdressing.

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

Yes	
Yes, but...	1. I can only identify distinct differences 2. I can only do it with one hand 3. I have to use another part of my body, not my hands 4. As long as it is not too tiring 5. It depends how often I have to do it 6. It depends how I am feeling at the time 7. Other
No	

Consider distinguishing different textures, thickness, quantities, etc by touch

Workplace

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

Yes	
Yes, but...	1. It depends how enclosed it was 2. Only with someone else there 3. Only with someone else I know 4. It can trigger a reaction 5. It depends how often I have to do it 6. It depends how I am feeling at the time 7. Other
No	

Examples: Kiosk, cold store, linen cupboard.

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

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

Examples: Farming, plant nurseries, large open plan offices.

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

Yes	
Yes, but...	1. It depends how long I am on my own for 2. I need people around me in case of medical emergency 3. It depends if I have my medication with me 4. I am concerned about my personal security 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	

Examples: Collecting trolleys, security guard.

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. As long as I can drink fluids 4. As long as I can cool down regularly 5. I can but I'm not meant to 6. As long as it is not too tiring 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Examples: Bakery, kitchen, greenhouse, laundry.

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. As long as I can warm up regularly 5. I can but I'm not meant to 6. As long as it is not too tiring 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Examples: Cold store, food production factory, working outdoors in the winter.

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 can trigger a reaction 3. I can but I'm not meant to 4. As long as it is not too tiring 5. It depends how often I have to do it 6. It depends how I am feeling at the time 7. Other
No	

Examples: Temperature: In and out of a cold store, Light: going outside on a sunny day, Noise: playground supervision, Combination: cinema usher.

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. Only with appropriate personal protective equipment 3. It depends on the time of year 4. It depends how often I am exposed to it 5. Not when I have a cold or chest complaint 6. It can trigger a reaction

	7. I can but I am not meant to 8. It depends how I am feeling at the time 9. 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. Only with appropriate personal protective equipment 3. It depends how often I am exposed to it 4. It depends on the time of year 5. It can trigger a reaction 6. They affect some parts of my body but not others 7. I can but I am not meant to 8. It depends how I am feeling at the time 9. Other
No	

If a job involved using hearing protection, could you do that?

Yes / I don't need to	
Yes, but...	1. I can only wear them for a short time 2. It depends on the type of hearing protection 3. As long as it doesn't interfere with other equipment I use 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	

Examples: Ear defenders, ear plugs.

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

Yes	
Yes, but...	1. It depends how often I am exposed 2. It depends on the intensity of vibration 3. Only with appropriate personal protective equipment 4. It can trigger a reaction 5. I can but I am not meant to 6. It depends how I am feeling at the time 7. Other
No	

Examples: Industrial sewing machine, woodworking, collecting supermarket trolleys, hand held power tools, riding in a tractor.

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

Yes	
Yes, but...	1. I can only use large controls 2. I can only use small controls 3. I can only use them slowly 4. I cannot apply much force 5. I have limited control over my movement 6. I need something to support me 7. As long as it is not too tiring 8. It depends how I am feeling at the time 9. Other
No	

Examples: Pushbuttons, switches, levers, knobs, crank wheels.

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

Yes	
Yes, but...	1. I can only understand simple displays 2. It depends how many there are 3. I cannot look at a screen for long 4. It depends on the surroundings 5. It depends how often I have to do it 6. As long as it is not too tiring 7. It can trigger a reaction 8. It depends how I am feeling at the time 9. Other
No	

Examples: Dials, clocks, computer screens.

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

Yes	
Yes, but...	1. It depends on the machinery 2. It depends on the guarding 3. I would have to be trained to use the equipment 4. As long as it is not too tiring 5. I should not operate machinery on my own 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	

Examples: Lathe, video recorder, floor polisher, lawnmower.

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

Yes	
Yes, but...	1. I can use some hand tools but not others 2. I can only use them for a short time 3. I cannot apply any force 4. I can only use one hand 5. I wouldn't use my hands

	6. I can but I'm not meant to 7. As long as it is not too tiring 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

Examples: Hammer, spanner, pliers, tweezers, screwdrivers, scissors, electric drill, hairdryer.

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

Yes	
Yes, but...	1. I have limited movement in both feet / ankles 2. I have limited movement in one foot / ankle 3. It depends how hard I have to press 4. I cannot hold a pedal in a fixed position 5. I have limited control 6. I can but I'm not meant to 7. As long as it is not too tiring 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

Consider discrete / continuous use, e.g. on/off pedal, sewing machine pedal.

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

Yes	
Yes, but	1. I can only do it slowly 2. I can only use one hand 3. I can't use my hands 4. I would need to be taught 5. I can use a keyboard but I can't touch type 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

Examples: Computer keyboard, shop till.

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

Yes	
Yes, but...	1. As long as it doesn't interfere with other equipment I use 2. I would need adapted equipment 3. I would need a headset 4. It depends who I am speaking to 5. It makes me anxious 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 computer could you do that?

Yes	
Yes, but...	1. I would need to be taught 2. I could only do simple things 3. I can only do it slowly 4. I would need adaptation to the keyboard 5. I would need adaptation to the mouse 6. I would need adaptation to the screen 7. I would need adaptation to the software 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

Examples: Desktop personal computer, laptop, personal organiser.

COGNITION

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

Yes	
Yes, but...	1. As long as my concentration is OK 2. As long as they are simple 3. As long as there is not too much detail 4. As long as I can write them down 5. As long as they are written down for me 6. I can remember recent things only 7. I can only remember a few things 8. I need frequent reminders 9. It depends how I am feeling at the time 10. Other
No	

Examples: Items, names, dates, places, sequences, procedures, instructions.

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

Yes	
Yes, but...	1. As long as my concentration is OK 2. As long as they are simple 3. As long as they are routine 4. As long as someone has checked I've understood them 5. As long as I can write them down 6. I need them written down 7. It depends who gives the instructions 8. I need frequent reminders 9. It depends how I am feeling at the time 10. Other
No	

Examples: Work routines, health and safety, how to use equipment, how to get somewhere.

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

Yes	
Yes, but...	1. As long as someone shows me 2. As long as someone has checked I've understood 3. It depends how much time I have to learn them 4. As long as someone encourages me to try 5. As long as it is broken down into small steps 6. As long as I can practice 7. I can only learn simple tasks 8. As long as it is not too tiring 9. It depends how I am feeling at the time 10. Other
No	

Examples: Setting the security alarm system, learning to use a computer program.

If a job involved concentrating, could you do that?

Yes	
Yes, but...	1. I can only concentrate for short periods 2. It depends on what I'm doing 3. I have a short attention span 4. I am easily distracted 5. It depends how tired I am 6. I have to try hard 7. As long as it is not too tiring 8. It depends on the surroundings 9. It depends how I am feeling at the time 10. Other
No	

Examples: Checking deliveries, setting up equipment, listening to a customer request.

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

Yes	
Yes, but...	1. As long as my concentration is OK 2. As long as they are part of my everyday routine 3. It depends how much pressure there is 4. It depends how much time I have to do them 5. Only if they are simple things 6. It makes me anxious 7. As long as it is not too tiring 8. It depends how often I have to do them 9. It depends how I am feeling at the time 10. Other
No	

Examples: Talking on the phone whilst taking notes, cooking, looking after children.

If a job involved precision, could you do that?

Yes	
Yes, but...	1. As long as my concentration is OK 2. I have to try hard 3. It depends how much pressure there is 4. It would take me longer 5. As long as it is not too tiring 6. It depends how often I have to do it 7. It depends how I am feeling at the time 8. Other
No	

Examples: Taking measurements accurately, working to required standards or set tolerances.

If a job involved checking things are OK, could you do that?

Yes	
Yes, but...	1. As long as my concentration is OK 2. As long as they are part of my everyday routine 3. It depends how much pressure there is 4. Only simple checks 5. I couldn't do it visually 6. As long as it is not too tiring 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Examples: Tables laid properly, shelves stacked fully, quality control.

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

Yes	
Yes, but...	1. As long as my concentration is OK 2. Only following the usual procedure 3. When I've been given permission 4. It depends how much pressure there is 5. It depends on the risk involved 6. Only simple decisions 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	

Examples: Handling customer complaints, prioritisation, deciding whether to keep or throw something away.

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 need a prompt to change pace 3. I have difficulty speeding up 4. I have difficulty slowing down 5. I can but I'm not meant to 6. As long as it is not too tiring 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Examples: Reception desk at busy and quiet times, working on a supermarket checkout.

If a job involved working to deadlines, could you do that?

Yes	
Yes, but...	1. They would have to be in my control 2. It depends on the support I have 3. It depends how much pressure there is 4. I have difficulty switching off 5. I can but I'm not meant to 6. As long as it is not too tiring 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Consider the need to complete tasks on time and the consequences of not doing so.

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

Yes	
Yes, but...	1. It depends how much pressure there is 2. I could only manage a few people 3. I could only manage people I know 4. As long as I have some support 5. Communication can be an issue 6. I can but I'm not meant to 7. As long as it is not too tiring 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

Examples: Talking to someone about sick leave, allocating tasks, setting objectives.

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

Yes	
Yes, but...	1. It depends how demanding it is 2. I can only work with people I know 3. I can only work with people from my organisation 4. I can only work in a small group 5. I can only work on a one-to-one basis 6. Communication can be an issue 7. It makes me anxious 8. It depends how often I have to do it 9. It depends how I am feeling at the time 10. Other
No	

Examples: Colleagues, people at another branch, partner organisations.

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

Yes	
Yes, but...	1. It depends how demanding it is 2. I can only work in a small group 3. I can only work on a one-to-one basis 4. Communication can be an issue 5. It makes me anxious 6. As long as I'm not working on my own 7. It depends how often I have to do it 8. It depends how I am feeling at the time 9. Other
No	

Examples: Working in a shop, telephone sales, delivering post, bar work, security guard.

Appendix K – Tasks with associated effects

Task affected	Context of limitation
hearing	limited hearing ok close up, hard when further away difficult in loud environments difficulty with low frequency sounds difficult when there is background noise some ringing in the ear no hearing
distinguishing different sounds	depends on the volume and type of sound difficult when there is background noise hard to determine direction of noise can only distinguish very loud sounds may have difficulty associating sounds with meaning no hearing
communicating with others	difficult in groups easier one-on-one can do some lip reading and speaks with a heavy accent cannot communicate with hearing and speech can only speak for short periods of time difficult to understand people others may have difficulty understanding person can cause anxiety voice is low and has difficulty projecting
reading	can read simple language can see large font reads Braille reads slowly complex words are difficult limited concentration for limited amounts of time
writing	slowly can write simple basic words very limited manually ok with computer spelling is limited complex words and sentences are difficult limited movement and strength in hands
using numbers	only simple numbers and calculations would need large print only counting

using hand signals	could give them but would have difficulty seeing them may have difficulty understanding has difficulty with this concept limited movement and strength in arms and hands only with one arm or hand
seeing objects that are near	only with one eye very limited vision no vision
seeing objects at a distance	only with one eye only general shapes and colours very limited vision no vision
using peripheral vision	only with one eye very limited no vision
recognising the difference between colours	limited with dark colours very limited vision no vision
recognising the difference between different shapes and sizes of objects	limited vision only general shapes not using vision
using depth perception	difficult at a distance limited vision no vision
movement of objects	limited vision would depend on the size and speed of movement limited especially at a distance limited vision no vision
recognising patterns	depends on distance of object depends on similarity of pattern ok with general patterns, small detail is difficult limited vision no vision
standing	would need to have a seat available in case a seizure starts only for a short period of time can stand for moderate periods of time would need to move around frequently only when using sticks no uses a wheelchair

sitting on a seat	need to move around frequently only with proper seating only for limited time would sit in wheelchair needs extended leg room
reaching up high	with limited force for limited repetition limited movement for limited time limited strength and range of motion in one arm only from seated position in wheelchair limited ability to grasp objects limited when standing, use of crutches difficulty with balance
working with hands above your head	can cause dizziness only for a limited about of time with limited force limited mobility in shoulders only from seated position in wheelchair difficult if gripping is required difficulties with balance
reaching down low	causes dizziness difficulties with balance limited movement in back limited if knees are required to bend only to about knee height only from seated position in wheelchair for short periods of time and frequency limited movement in shoulders and arms may have difficulty getting back up difficult when standing because of crutches
getting under something low	would need assistance to get back up again limited lower body mobility prevents this movement would not be able to get on floor or get back up back has limited strength and endurance limited strength and stamina
bending your back	for a limited time only from seated position in wheelchair only for short periods of time with limited force would need something to lean on if standing
leaning over	for a limited amount of time with limited strength with limited mobility only from seated position in wheelchair would need something to lean on if standing

reaching behind	would have to turn around limited neck movement limited strength and range of motion only from seated position in wheelchair limited when standing
looking around	limited vision no vision can cause a loss of balance limited neck movement
changing from one posture to another	causes dizziness can only do it slowly difficult if starting from a low position, need something to lift off from would stay in wheelchair
lifting	only light things limited movement limited strength only limited repetition difficult if gripping is required not when using sticks only from wheelchair
carrying	may have difficulty with way finding due to limited vision only light things limited movement limited strength only limited repetition difficult if gripping is required not when using sticks only from wheelchair
getting around the workplace	may have difficulty with way finding due to limited vision limited stamina would do it slowly must be wheelchair accessible difficult to avoid obstacles
working in restricted spaces	would be difficult to see obstacles may cause anxiety limited spatial awareness depends on if stick can be used only if it is accessible for a wheelchair would use a cane and may have difficulty moving obstacles
using slopes or ramps	difficult to see if there are no markings may lose balance if level change is not marked high gradients are difficult because of limited mobility limited stamina

	only in a motorised wheelchair
	would need to do it slowly
using steps or stairs	difficult if there are no markings
	high gradients are difficult because of limited mobility
	limited stamina
	no, uses a wheelchair
	would need to do it slowly
	would need to use a railing
using a ladder or stepladder	hearing affects balance
	may be affected by vertigo
	causes anxiety
	can be dangerous if a seizure happens
	only a few steps
	limited strength and/or mobility to climb ladder
	no, uses a wheelchair
working at heights	hearing affects balance
	may be affected by vertigo
	causes anxiety
	can be dangerous if a seizure happens
	only at low height
	would need assistance to get there
	depends on the platform and access for wheelchair or stick users
walking	may need guidance for way finding
	ok with familiar routes but would need assistance for new ones
	only short distances
	for a moderate distance
	can only walk slowly
	no, wheelchair user
travelling	can be affected by limited ability to communicate
	ok with familiar routes but would need assistance for new ones
	not able to read signs
	prone to motion sickness
	can cause anxiety
	difficulty with long or complicated routes
	would need to take special precautions in case of a seizure
	can cause pain and discomfort depending on form of transport
	must be accessible for wheelchair or cane user
	requires additional time
	limited stamina for long trips
	could not go overnight due to medical routines
driving	cannot hold a licence because of vision
	not confident with ability to pass the written test
	causes anxiety
	cannot hold a licence because of seizures
	difficulty with long or complicated routes

	for limited periods of time would need to use an automatic vehicle need to have an adapted vehicle
using right leg and foot	limited mobility limited stamina limited strength tremors in leg
using left leg and foot	limited mobility limited stamina limited strength tremors in leg
using right arm and hand	limited mobility limited stamina limited strength difficulty with grip limited dexterity
using left arm and hand	limited mobility limited stamina limited strength difficulty with grip limited dexterity
working with arms outstretched	limited mobility limited stamina limited strength only from a seated position limited in one arm
coordinating one arm with the other	limited, finds this difficult limited in one arm or hand
gripping objects	limited mobility limited stamina limited strength limited in one hand
manipulating objects	difficult with small objects because of vision dexterity is limited limited because of tremors only for short periods of time limited in one hand limited strength
identifying things by touch	loss of sensation in one hand
working in an enclosed place	causes anxiety depends on the size and if there is room to manoeuvre with sticks or a chair

working in open spaces	can cause anxiety may be limited by mobility needs to have constant access to facilities
working in isolation	would need to ensure there is support available causes paranoia may cause anxiety needs to have constant access to facilities
working in very hot conditions	can trigger a reaction - asthma, diabetes, epilepsy, skin condition causes fatigue hot environments can raise blood pressure causes feelings of unwellness can affect anti-rejection drugs
working in very cold conditions	cause joints to seize up and pain can affect respiration would cause stress can aggravate angina will affect circulation and cause a reaction affects mobility worsens tremors
going from one environmental condition to another	difficult to go from light to dark and visa versa because of vision noise causes anxiety going from light to dark can trigger a seizure bright light can cause migraines temperature changes affect muscles and joints warm to cold can affect respiration can aggravate angina can cause epileptic seizures
working around airborne contaminants	may irritate vocal cords may aggravate respiratory problems sensitive to harsh smells, causes nausea
working around skin irritants	may aggravate skin condition (dermatitis, eczema, psoriasis)
using hearing protection	depends on hearing because vision is limited working in a loud environment causes anxiety
being exposed to vibration	may find this stressful can trigger a seizure can cause joint pain may aggravate health condition not recommended because of heart condition
using controls	may have difficult with identifying items because of vision

	only simple controls would depend on if it is safety critical, may have a seizure when operating force can be limited limited ability to do fine finger/hand movements limited mobility in one hand would depend on height and reach required
understanding displays	only simple displays would depend on the size and contrast of what is being displayed would not be able to see them depends on if it involves reading
operating machinery or equipment	depends on the machine and visual requirement only simple tasks depends on if it involves reading any machinery that has moving parts that can be seen can trigger a seizure not recommended to operate dangerous equipment limited force limited stamina would depend on the height of equipment and reach required only with one hand may need frequent reminders on how to operate
using hand tools	limited by vision limited dexterity limited strength and stamina only from a seated position only with one hand may aggravate health condition
using a foot pedal	no strength or mobility in legs limited strength in legs/feet limited mobility in legs/feet only with one foot
using a keypad / keyboard	can do it slowly only simple tasks limited by literacy / learning disability cannot see keyboard cannot use hands only with one hand limited dexterity limited stamina
using a telephone	limited hearing not verbally, only fax, minicom or text only for very basic communication causes anxiety person listening may have difficulty understanding speech limited strength and mobility in neck

using a computer	can do simple things may have difficulty seeing the screen limited by literacy/ learning disability limited time in one position may have difficulty with finger movements
remembering things	limited memory only simple tasks depends on concentration and fatigue
following instructions	only with simple tasks only in simple language depends on visual requirement limited by literacy depends on hearing requirement can be affected by concentration
learning tasks	depends on visual requirement limited by literacy depends on hearing requirement only simple tasks may need extra time and effort
concentrating	is easily distracted short attention span affected by stress depends on medication and fatigue
doing more than one thing at once	more than one task is difficult because of hearing depends on if one task involves sight only simple tasks causes anxiety difficult if they require concentration difficult if both tasks are physical
using precision	depends on if vision is required difficulty with this concept limited manual dexterity may take longer simple tasks
checking things are OK	depends on if vision is required only simple things would need to be part of routine
making decisions	only simple decisions would depend on risk and pressure
changes of working pace	causes anxiety would have difficulty speeding up need to stay at a steady pace because of condition fatigues easily

working to deadlines	pressure would cause anxiety may need extra time if task is difficult depends on if the task is complex
managing other people	communication can be an issue could cause anxiety not confident with this task
working with others	communication can be an issue only in a small group could cause anxiety has difficulty getting along with others not confident with this task
working with members of the public	communication can be an issue only in a small group depends if tasks require vision could cause anxiety not confident with this task

Appendix L – Disabilities or health conditions in sample

Disability or Health condition

Hypermobility syndrome
Arthritis
Rheumatoid arthritis
Psoriatic arthritis
Osteoporosis
Cerebral Palsy
Degenerative disc disorder
Sciatica
Herniated disk
Common peronial nerve dysfunction
Plantar fasciitis
Talipes
Dupuytren's contracture
Carpal tunnel syndrome
Cataracts
Glaucoma
Photosensitivity
Low vision
Blind - some residual sight
Loss of vision in one eye
Tinnitus
Deaf
Partial hearing loss
Loss of hearing in one ear
Dysphonia
Psoriasis
Asthma
Fibrosis
High blood pressure
Angina
Varicose veins
Leolstomy
Ulcerated colitis
Crones disease
Diabetes (Insulin dependant)
Diabetes (Non insulin dependant)
Epilepsy
Anxiety
Depression
Manic depression
Psychotic depression
Obsessive compulsive disorder

schizophrenic affective disorder
Dyslexia
Dyspraxia
Learning disability
Aspergers syndrome
Stroke
Head trauma
Charcot-Marie-Tooth disease
Hiatial hernia
Dermatomyositis
environmental illness, ME
fibromyalgia
polio
spastic paraplegia
thalamic astrocytoma

Appendix M – Solutions booklet produced for sponsors

Impairment	Effects on Work	Useful information/Solutions
		Mental Health/cognitive
Depression (general) – can come from not being successful at looking for work	Won't want to go to work, motivation, fatigue, can't get out of bed, won't be able to interact socially, performance at work is hindered = discipline, can't communicate	• To improve attendance and motivation it may be beneficial to pair the employee up with a 'buddy' at work, ideally this person will be in a slightly supervisory position but not too far above the employee. The reason for this is that the employee should feel accountable to the buddy but if they are in a high ranking position the employee may be intimidated. • Co-workers that are responsible for tracking the employee's performance should be trained in how to affectively communicate with individuals with depression, if this is not possible it may be best to have a professional come in from a local mental health team to assist with any conflicts, this could be arranged through the local Community Mental Health Team (CMHT) or the Mental Health Trusts, details of these organisations can be obtained through NHS direct • Depending on how the employee feels about disclosing details of their condition, it may be advisable to have a quiet word with co-workers to discuss how best to handle any conflicts that may arise with the employee or to generally educate them about the employee's specific needs. This is especially important with employees that have had difficulties with co-workers in the past. • Working flexible hours can many times resolve difficulties the employee is having with getting to work or issues that they have with travel to work during rush hour, this could also be resolved by working remotely so many hours a week • If it is difficult for the employee to work a continuous 8 hour shift and working from home is not an option, then having a designated area for the person to go and rest comfortably for certain times may increase their stamina especially if it is affected because of medication. This could be a reclining chair in a lounge or a roll mat in an empty or little used room. • It may be necessary to reallocate tasks that the employee finds daunting, this could be a short-term solution until they gain confidence with their abilities or a more long term arrangement if they find it fatiguing or causes their condition to deteriorate. • If the individual is taking medication it is most likely to be a Selective Serotonin reuptake inhibitor (Prozac, Paxil, Zoloft etc.), typically this type of medication only causes side effects during the acclimation stage but these include; drowsiness, nausea, headaches, dizziness, and continued feelings of depression. How a person will react to medication varies depending on the drug and the individual so regular check-ins with the employee to see how they are feeling would be the best way to monitor their performance and any changes to work that need to be addressed • It is quite common for people with clinical depression to also have an anxiety disorder as well, see below for information on anxiety.
Anxiety – mostly	communication and socially	• The most common symptoms of anxiety disorders are panic attacks, heart palpitations,

using medication or have been on meds	limited, anything out of the ordinary is not possible	unspecific fear, dizziness, headaches, and insomnia. Which of these an individual is experiencing is specific to them, therefore open communication with the employee about how they are being affected is key to retaining them at work. • If communicating with co-workers proves to be difficult, it may help to have an understanding and trusted employee that works in the proximity to be designated as a go between, once they have had an opportunity to develop a bond the veteran employee can act as a mediator and/or mentor. • Frequently people with anxiety conditions are not confident with their ability to try new things, so when there is pressure to do a new job they cannot concentrate on the tasks fully enough to learn it. It is usually beneficial to break down the employee's job into more discreet tasks and train them separately on each task allowing time to adjust and practise them before the next task is introduced. The best way to monitor their progress is to ask them if they are comfortable with adding a new task to their routine before the training starts. This will increase their confidence over time and allow them to set their own pace. • It is quite common for people with anxiety to fear any form of communication with people that they do not know, the most common reason given for this is that they will not know how to deal with the expectations of the other person. Most commonly this will affect the use of the telephone for incoming calls, it is probably best to ensure that the employee is very familiar with the answers to frequently asked questions and/or the products and services of the company. For training of this task a longer period of supervision may be necessary and should probably start with just some shadowing. It is also important to practice the routine with them until they are comfortable, this includes mock calls and feedback as well as ensuring them that there is nothing wrong with telling a customer that they will need to look up the information and call them back, this should reduce their fear of encountering difficult situations. Additionally the employee should be encouraged to ask questions and to keep an organised log of the information so that they can refer to it when they forget. Conversely the person may be more comfortable handling incoming requests that are routed via email as there is not as much time pressure for this task. • Medication taken for anxiety disorders are usually in the Benzodiazepine family of drugs which have side effects including; drowsiness, dizziness, loss of concentration or memory, and difficulty with judgement tasks (i.e. driving, operating machinery, etc.) because of this there are implications for Health and Safety issues depending on the type of job or the site itself. • Frequently people with anxiety disorders are also being treated for depression and are therefore on antidepressants, see section above for information on this.
Learning disability Dyslexia	Hard to learn new tasks, reading, writing and	• By definition people with a learning disability do not have a low IQ but are usually just hindered from learning by the way they process and remember information. How their disability will

	numeracy are affected, may not be able to remember many things, difficult to multi-task	affect their work depends on the types of tasks that they have do as listed to the left, therefore each of these will be addressed separately. READING • If the individual has difficulty with reading text there are a range of things that may help them to overcome this including; increasing the font size, changing the font to sans serifs (i.e. Arial), change the background colour of documents if working on the computer or place an overlay of coloured transparency on a hard copy usually light blue, red, yellow or pink work best, limit the amount of glare on a computer screen, avoid glossy paper, use lined paper, use a coloured ruler to help keep their place in the text, keep documents short and to the point with no complex words, if working from a computer text to speech software can be used and if working from a hard copy documents can be scanned into an electronic file then read by the software WRITING • Common solutions for small amounts of writing are; using legal pads to write (the colour and lines can help), typing memos or messages into email messages so that they can be spellchecked before they are passed on, if the information being taken is frequent and similar make up check list memo sheets, use an audio recorder to dictate information. • For larger amounts of writing again an audio recorder can be used and then typed later by the person or someone else or speech to text software can be used, if a number of ideas need to be organised before the writing can take place it may be useful to use mind-mapping software such as Mindgenius to help with the structure of the report or document NUMBERS • To simply copy numbers i.e. telephone numbers, addresses, monetary amounts etc. from one sheet to another it may help to have the original information in larger print and clearly written, using a pen scanner will allow a string of numbers to be stored and these can then be transferred to a computer document, or numbers from hard copy can be inputted via a keypad then rechecked. If the numbers are being given by an auditory cue the person will most likely have to ask the person giving the information to do it slowly and to train themselves to repeat the numbers back ensuring that it was correctly copied down, for larger amounts of data or calculations forms or spreadsheets can be set up to cut and paste the data into or to set up formulas ahead of time VERBAL • If the individual has difficulty with processing or understanding verbal communication it may be best to pass on information in writing if this is not possible then keep verbal exchanges very brief and to the point • If they have difficulty with expressing themselves then they may need to be given extra time

		to think through what they want to say or to make some notes first, the receiver should then summarise and repeat back what the person has said as they understand it to ensure that the employee properly communicated what they intended to
Bi-polar – manic depression	extremes, lack of rational thought, can have bad periods	• There is a very wide range in the severity of this condition, therefore the best way to determine what the individuals needs may be is to specifically ask them what types of difficulties they have in their day-to-day life and then try to identify how this will translate to their work performance. Typically people who are bi-polar will have major mood swings alternating between an agitated or aggressive state to going into a depression. This could happen within in a short period of time (a couple of hours) or over days or weeks. • Due to the observable personality changes in a person with this condition, it is highly recommended that full disclosure to the employer be supported with help from a counsellor or advisor that the employee is familiar with. It is also important for co-workers to be given some education about the person's condition and how it may manifest at work. The reason for this is that if the employee has severe mood swings that negatively affect others or the general work atmosphere they may be ostracised or bullied by co-workers, this in turn may worsen the employee's illness. By addressing the issues early and monitoring the situation from the employee's side as well as the co-workers, most conflicts should be resolved. • If the employee or co-workers are not comfortable with interaction during the periods of extremes, alternate arrangements may need to be made so that the person is able to work from home or in a more appropriate setting for a period of time. • Typically a person with manic depression who has been diagnosed and is being treated will be on medication to try and level out their mood swings, however there is a number of drugs that the person may be taking either as a combination or individually. If they are anti-depressant derivative they could cause the person to be lethargic, drowsy, and may affect concentration or memory. Many drugs will have implications for Health and Safety and any tasks that could be even mildly considered dangerous should be avoided or altered. This could include lowering items that typically need a ladder to reach, putting guards or safety shut-offs on machinery, and ensuring that pathways are clear of debris
Autism or Aspergers	Difficulty with communication, and social interaction. Inability to concentrate on more than one thing at a time. Inability to understand feelings and innuendo	• Autism, Aspergers and Sensory integration dysfunction are all currently accepted as being on the Autistic spectrum. There is also a separation between what is termed 'low functioning autism' where the IQ is less than 80 or 'high functioning autism' IQ above 80, typically those with Aspergers are in the high functioning category. Symptoms include difficulty with communication, social integration, co-ordination, and fixation on repetitive tasks or routines. • The difficulty with autistic spectrum disorders is that individuals may be of average or

		frequently above average intelligence but their ability to communicate and interact socially with others is hindered, so you know they can do a particular job but other aspects of the work may be affected. It is important to ensure that the person is comfortable with the essential tasks of a job, which more than likely will be analytical or those that involve meticulous attention to detail, then to train them slowly taking extra time when communication is needed. The job of the trainer or supervisor will be vital and they should therefore receive some training or advice on how best to manage the process of integrating this employee. • When communicating keep instructions clear, simple and short to ensure that the employee understands what is expected of them, add tasks when the employee has shown a competency with what they have already been given but be prepared for the possibility that they may only be able to concentrate on one thing at a time, this is generally because they concentrate so fully on that one thing. • Try to keep from using anything but literal explanations as a common manifestation of autistic disorders is for the individual to lack understanding of jokes, catch phrases, sarcasm or analogies. • Instead of requiring the person to communicate back their understanding of the task it is usually best to have them demonstrate it instead, this will decrease their requirement to articulate what they know as this may be difficult or misinterpreted • Ensure that the employee does not have problems with repetitive checking of tasks or wastes time with unnecessary details, for example they are stocking shelves but they do it perfectly which takes up too much time to get the job done • Depending on the obviousness of the persons disorder traits it may be necessary to brief co-workers on how to communicate effectively with the employee, this may prevent future problems with misunderstandings and unrealistic expectations
Dissociative personality disorder	inappropriate behaviour surfaces, forget past situations, can't remember people	• This is a relatively rare condition and is most often linked to post-traumatic stress disorder, i.e. manifests from a severely stressful event. Typically people who have Dissociative disorders are under the care of a psychiatrist and will have a very specific set of side effects that are relevant to their case. The individual will most likely be able to discuss their behaviour and how it affects their day-to-day life and what coping strategies they use to deal with it, use this as a guide to how work tasks should be adapted in order to accommodate their needs.
Schizophrenia	difficult to work if hearing voices, effects of medication, hard to keep to a routine, disorganised	• There are generally two types of Schizophrenia as defined by "positive" and "negative" symptoms. Some of the Positive symptoms that are classically present are delusions, paranoia, auditory hallucinations and lack of organised thought, these are associated with psychosis (lack of contact with reality). Conversely Negative symptoms are characterised by the lack of some typical behaviors or capabilities, these include; lack of emotion or motivation, limited speech, and restricted

		cognitive abilities such as memory, concentration, and problem solving, as well as impaired social function. • Anti-psychotic medication is usually prescribed for people who have positive symptoms and sometimes for those with negative symptoms depending on the circumstances. There is a wide variety of this type of medication and each has varying side effects, to determine the possible affects of the medication on the individual the employees doctor may need to be consulted. If this is not an option information can be obtained from NHS direct at http://www.nhsdirect.nhs.uk/
Obsessive-compulsive disorder	behaviour can disruptive to work, time consumption of checking, stress on co-workers because it can be annoying	• The physiology of Obsessive Compulsive Disorder (OCD) is not totally understood, however it does qualify as a disability and manifests itself in two ways 'obsessions' which are thoughts that the person cannot control and 'compulsions' which are actions they cannot control, for example constantly thinking about ones hands is an obsession, where as washing the hands repeatedly throughout the day is a compulsion. People with OCD are aware that their obsessions or compulsions are not based in reality and know that they are disruptive to their lives but feel anxious if they do not carry them out, however they will tend to hide their behaviour. Conversely people with Obsessive Compulsive Personality Disorder may have similar obsessions or compulsions but do not think that there is anything wrong with them or their behaviour. • The most common course of treatment is Cognitive behaviour therapy which trains the person to control their actions by building up a tolerance to the anxiety that is caused by their obsession or compulsion. Alternatively they may be on depression medication (see depression) to control the symptoms. • It is important to understand what exactly the person is affected by, it may be possible to avoid the situation entirely at work or some adjustments may need to be made in order to avoid the source of their obsession/compulsion • It may be necessary to work with a therapist when integrating the employee, as they are trained to handle their objections or advise on what is acceptable to be exposing the employee to so that their anxiety is manageable. • The employee may benefit from an assigned work 'buddy' to check on their behaviour and ensure that they are not being side tracked or are sticking to a preset routine as outlined by the therapist
Self-harm	n/a	
Systemic/organ pathology		
Epilepsy – medicated, attacks infrequent, no	think they can't work – stigma, unpredictability – can be embarrassing and	• Usually seizures will last from 10 seconds to a few minutes, the different types of epilepsy are: 1) Absences – person blanks out, usually staring into space. 2) Tonic-clonic – person becomes ridged, goes unconscious and may fall down 3) Tonic and atonic – goes ridged, loss of muscle

serious seizures	stressful, H&S issues, lapse in cognition	control resulting in dropping to the ground 4) Myoclonic –strong muscle contractions resulting in convulsions • Seizures can be brought on by many things including; visual stimulus such as flickering lights, sudden and drastic change in lighting, moving or repeating patterns, more commonly it is triggered by stress, illness or fatigue, just to name a few. Ask the person what triggers their episodes, and how severe they are, do not assume. During seizures they can have varying degrees of awareness about what is going on around them but typically they cannot respond or control their movement during a seizure. • For most people they fear the stigma that is attached to this condition, from the employees point of view they may have had past experiences of people misinterpreting their seizures for being rude or have had embarrassing episodes of falling over or having a spasm, from the co-workers side they may assume that if the person has a seizure they will hurt themselves and they will not know how to handle the situation. The key to avoiding this is education and communication, once the co-workers are informed about what could happen and how to handle these situations they will be more confident and understanding, conversely the employee will feel less self-conscious about the possibility of a seizure happening which will most likely decrease the chances that it will. • Most people who have frequent reoccurring seizures will take anti-epileptic medication, which doesn't usually have long term side effects, but for those who do experience them this will most likely include; fatigue, difficulty with concentration and/or memory, or light headedness RECOMMENDATIONS – Epilepsy Research Foundation • 10 basic safety points; ensure floor covering are fixed, provide adequate lighting on stairs and landings, choose sturdy furniture – avoid sharp corners and clutter, provide sufficient power points to avoid trailing wires and use equipment fitted with safety cut-offs, use toughened safety glass in windows and doors, firmly fix fireguards and radiator covers – lag any hot exposed pipes, keep medication clearly labelled and securely stored, install and regularly test smoke alarms, keep and up to date emergency contact list near the phone with a note describing seizures and treatment, keep a well maintained First Aid Box close by. • Some work situations that should be avoided by people with poorly controlled seizures are; at heights, near water, with high voltage or open circuit electricity, with unprotected machinery, on or near moving vehicles, with chemicals, near sources of extreme heat, in isolated places, alone with babies, children or with frail elderly people. • Some additional points to consider are; that the person is likely to be dependant on public transportation, they should have access to a comfortable room to recover in after a seizure, and that they may have difficulty adapting to drastic changes in schedules because of medication and fatigue

Asthma – mostly mild	environment, co-workers using fragrance, extremes in temperature	• Asthma is a chronic condition which affects the respiratory system causing the airways to constrict, become inflamed and produce excessive mucus. Asthma 'attacks' are usually brought on by the presence of an airborne contaminant such as a harsh solvent, pollen, animal dander, aerosol sprays, strong perfumes, cigarette smoke, etc. or exposure to extreme cold or heat, in some cases illness, physical exertion or stress will also cause episodes. • The most common way to control asthma is to use an inhaler to administer a bronchodilator to get relief or to use a corticosteroid as a preventative medication. • If an employee has asthma and they are prone to flare-ups it is important to identify what triggers them, most people will avoid jobs that they know will agitate the condition i.e. working around animals, outdoors or where there is definitely strong chemicals being used, but there may be some unexpected irritants on the premises including cleaning products, deodorizers, or printing chemicals. It may be helpful to discuss with the cleaning and maintenance staff if they use any solutions that are ammonia or bleach based, have strong wood or floral scents, or are highly toxic, switching to non-bio products should eliminate any hazards to the employee and will be better for all of your staff. • If there are situations that could cause an episode that can't be avoided as part of the job, either try to reallocate the task or purchase protective equipment for the employee to use. • If overheating is an issue for the employee the use of fans or air conditioners should decrease this, or moving the task closer to an open window. If the overheating occurs from physical exertion than this should be limited.
Other allergies – dermatitis, eczema	any strong substance, airborne to touch, animals, hot environment cause sweat worsens	• Extreme temperatures can cause breakouts, so steps should be taken to stabilise internal temperatures however working outdoors will require appropriate clothing in the winter and cool down breaks (time to wash off sweat) in the summer • If the employee is having reactions to chemicals that are being used on the premises try to find replacements that won't trigger a reaction, if this cannot be done when provide appropriate protective equipment (i.e. latex gloves)
Diabetes	time issues, work patterns, medication, having hypo's, co-worker reactions, fatigue	• If there is a chance that the employee may have complications due to their condition, either from their blood sugar being too low or too high, it is a good idea to inform any co-workers that work in the immediate area about what to do in case of an emergency. If the employee works alone or remotely you might want to investigate emergency alert services, whereby the person wears a pendant that can trigger a call for help, call your local authority for details usually listed under 'Lifeline and Warden Services' • Ensure that the individual always has access to water and juice in the event that they have to adjust their blood/sugar level. • It is generally recommended that work patterns stay fairly constant, the reason for this is that

		people with diabetes will usually have to stick to a fairly rigid schedule for medication, eating, sleeping, and exercise in order to control their condition. • There is quite a wide range in tolerance levels for people who have diabetes when it comes to physical exertion, exposure to heat, and long working hours. It is important that the employee stays within acceptable levels for their situation and that they do not feel any pressure from supervisors or co-workers to exceed what they are comfortable with. • There are a couple of common side effects of diabetes if the condition is not controlled adequately these include; vision loss, damage to blood vessels in the feet resulting in difficulty with walking, muscle wasting, difficulty with healing and renal failure. If the employees condition deteriorates it may be necessary to provide further adjustments so that they can continue to work • There are two main types of Diabetes: Type I – Referred to as insulin dependant diabetes where the individual must take regular injections of insulin to make up for the body's inability to produce its own. People with type I have most likely had it since they were young and will therefore have developed coping strategies for dealing with it. An important thing to consider is that employees will require regular access to a private area where they can administer injections and/or have somewhere to relax if they are not feeling well Type II – Is adult onset and is a result of a limitation or resistance to insulin uptake in the body. If medication is taken it is usually taken orally and generally controlled through lifestyle changes such as diet and exercise.
Stomach ulcers	stressful positions, lifestyle choices	• While ulcers have been found to be caused by a bacterial infection in the large majority of cases, stress is still thought to be a significant factor. If an employee has an ulcer they may be weary of taking on stressful tasks as it is likely to worsen their condition. Keep an open communication with them to ensure that their job is manageable and not having negative affects on their health, if there is a problem reallocate tasks to other employees or introduce them to the employee slowly
Heart conditions – angina, high blood pressure, hypertension	physical limitations, medication will affect sleeping patterns	• Although there are many different types of heart conditions, which can either be congenital or an acquired disorder, the most common cause of heart disease is coronary heart disease which is a narrowing or blockage of the coronary arteries this happens over time and is usually attributed to lifestyle choices. Once a person is identified as having a heart disease it is typical for them to be given a diet and exercise regime by their doctor, if this is the case than provisions should be made for the persons eating habits either by providing a specific menu for them at the cafeteria or supplying equipment to prepare or store food. • Depending on how long they have been dealing with the condition or how serious it is will

		determine the limitations on physical exertion and full length shifts. The person should be able to accurately advise an employer about the amount of weight that they can move and how often, but the employer should be cautious about approaching this limit. The employee should be encouraged to work to how they feel and to take breaks when they need them. It is also important to ensure there is easy access to drinking water because dehydration it very dangerous for a person with a heart condition. • Depending on the specific heart condition an employee may be on one of a number of different medications that work in different ways but usually for the same purpose, to lower the blood pressure. A common side effect of this will be for the person to feel light headed, dizzy, faint or lethargic in general. If this is something that the employee does battle with they may find it helpful to be offered a flexible work schedule or to be given the option to work part-time from home.
Fibromyalgia – general chronic joint pain ME/CFS – chronic fatigue	Reliability – good days bad days, fatigue, unable to plan or stick to a time schedule, access to workspace is it too tiring, pain may equal medication, lack of personal responsibility for actions blaming medical reasons	• Fibromyalgia is accepted as a disability although it is a poorly understood medical condition. It is characterised by general tenderness to the touch and chronic joint and muscle pain. Other side effects include disrupted sleep patterns which subsequently cause fatigue and cognitive disruption. People with this condition typically report 'good days' and 'bad days' meaning that sometimes it is manageable other times it will prevent normal daily activities. If any medication is prescribed it is most likely to be anti-depressants, anti-inflammatories or pain relievers which can have side effects of nausea, lethargy, and cognitive interference i.e. memory, concentration, communication etc. • Chronic Fatigue Syndrome (CFS) or Myalgic Encephalomyelitis (ME) is a syndrome that again is not fully understood medically but is characterised by constant fatigue, muscle weakness, a decrease in cognitive function, pain, hypersensitivity, decrease in thermoregulation, sleep disruption and often psychological side effects. People with ME may feel the need to sleep more but find that it does not help them to feel rested and any physical exertion will cause the condition to worsen. As with Fibromyalgia people report having good and bad days, the problem with this is that a good day can lead to overexertion and result in a bad day the following day. Treatment usually consists of complimentary therapy, counseling, and/or lifestyle changes however in some cases the person maybe prescribed sleeping or pain medication. • Both conditions can usually be accommodated by offering a flexible work schedule or to be by giving the option to work part-time from home. Physically demanding tasks should be eliminated or decreased where possible. Offering an area for the person to go and have rest breaks could help to increase the number of hours that they can work. Another recommendation is to try and limit the distance they need to cover in order get to their workstation, either by offering closer parking, or an office space that does not require stairs or long walks to access. • It is important to understand what the person may be experiencing psychologically with either

		of these conditions, if they feel like they are 'being a burden' or are not wanted at the workplace then this will result in increased feelings of depression and/or anxiety. Because there is not a concrete medical explanation for these conditions it is common for people to attach a stigma to those who have it as people who are hypochondriacs, lazy or attention seekers, ensuring that these types of attitudes are not projected onto the employee by co-workers is an important part of integrating them into the workplace.
Musculo-skeletal		
Lower back pain – acute (rarely because not looking for work yet) not on benefit yet Lower back pain – chronic, general but still a result of injury Lower back pain – chronic, family history Arthritis – rheumatoid, lupus,	Health and safety, posture (desk working), reduced hours, lifestyle, limited physical ability, side affects of pain killers = can't drive dangerous, concentration memory, make you feel unwell, cause constipation, Don't move around so seize up and gets worse, perceived as making a fuss because you need special equipment	• Chronic back or joint pain can be caused by many disorders but generally the symptoms are similar, these include; pain, fatigue, limited mobility, lack of physical strength and disrupted sleep. If medication is prescribed for the pain this can cause other side effects including; cognitive disruption (i.e. memory, concentration, effective communication etc.), digestive problems such as nausea and constipation and disruption to sleep pattern (may cause drowsiness). • Offering flexible working hours, working from home and part-time working may help alleviate some of the problems caused by the constant pain. If this is not possible it may help to have a place within the workplace where the person can take rest breaks throughout the day. If this is a viable alternative than a comfortable reclining chair or roll mat may be the best option for reducing the pressure on the joints. • A reduction in physically demanding tasks will also be necessary, if the tasks cannot be reallocated it may help to change the workspace so that there is less reaching, twisting and/or lifting. This can be done by lowering or raising often needed objects so that they are at chest height and are directly in front of them. • For office environments the availability of an ergonomic or reclining chair may help reduce the stress that is placed on the back and/or major joint areas. If it helps to have the person in a reclined then they may also need to have an adjustable monitor to tilt at an appropriate angle and keyboard tray that will go over the arms of the chair to support the keyboard and mouse or a cordless keyboard that can just be placed on the lap.
Cancer – breast, Hodgkin's, bowel,	Treatment, time off, medication can cause nausea and/or fatigue	• How severely an illness such as cancer will affect an employee will be dependant on the type and progression, this will need to be discussed with the employee and request that they ask their doctor about potential operation and/or treatment timelines to predict how long they will be off as well as what support they may need when they return. • Encourage the individual to seek out government or company benefits.
Repetitive strain injuries / carpal	unable to use mouse or keyboard for long periods,	• Repetitive strain (or stress) injuries (RSI) are caused by the overuse of the upper body muscles either by holding one posture for long periods or repeating the same movement frequently.

tunnel syndrome	can't hold phone,	This is common among computer operators and assembly line workers due to the nature of the work. Carpal tunnel syndrome is an RSI which specifically affects the wrists. Once a person has started to develop symptoms it is important that they change their work posture to prevent any further damage. • If the persons job is manual in nature than it is suggested that they be allowed to rotate tasks frequently throughout the day to ensure that different muscle groups are being used instead of the same ones constantly. This can be difficult if the job is skilled and the number of employees that can perform it is limited, in this case employees should be encouraged or prompted to take stretch breaks throughout the day or to change posture either by lowering or heightening themselves relative to their workstation. Also tools or supplies that are needed for their work should be kept in close proximity to the persons reach and should not require any heavy lifting in awkward postures. Another alternative may be to install some type of support for the arms or upper body if the stress is caused by holding one position for long periods • There are many solutions specifically for computer work these include; using a vertical mouse, joystick, tracker ball or function keys instead of a traditional mouse, if you are using Microsoft Office there are settings available called MouseKeys which can be programmed to have numeric keys replace mouse tasks, these are found under the control panel, then accessibility options, then mouse. Installing a keyboard tray under the desk can decrease the amount of reach needed to access the keyboard and mouse, in severe cases speech to text software can be installed to replace keyboarding (see visual impairment) • If the employee is required to use the telephone a lot it is advisable that they have a headset available to reduce the stress caused by the side neck flexion.
	Sensory	
A good place to investigate for computer solutions and accessibility for all sensory impairments is within the Microsoft office program itself, from the Start menu, click on All programs, then Accessibility and engage the Accessibility Wizard which will go through the steps of altering the computer settings most appropriately for the user. Additionally Microsoft provides various information on assistive technology for sensory impairments, view these at http://www.microsoft.com/enable/at/search.aspx		
Visual impairment		• The level and affect of visual impairment that an individual may have varies widely and will sometimes depend on the environment as well. The majority of people who are visually impaired have what is called 'low vision' which means that they are unable to read newsprint at a 'normal' distance even with corrective eyewear. The following is a list of suggestions that may help the employee overcome typical obstacles encountered in the workplace: *Computer working* - Enlarge the font, cursor and icon size by changing them in the accessibility settings in Microsoft

		office (under control panel, display, high contrast settings), in this option you can also change the colour contrast of the background to characters - Reduce the glare on the computer screen by either purchasing a monitor which has an anti-glare treatment (usually on flat screen monitors) or fix an anti-glare filter over the existing monitor. It is also important to assess the lighting around the workstation to ensure that there is no direct sunlight behind or in front of the monitor (windows should be at right angles to the monitor) and that overhead lighting, especially florescent is not too overpowering, substituting a small desk lamp may be beneficial. - Using a magnifier is a common solution which is now built into the accessibility options from Microsoft, to access it go to the Start menu, then All programs, Accessories, Accessibility and to Magnifier. Screen magnifiers can also be purchased that fit over the existing monitor to enlarge everything that is on the screen, or software such as SuperNova can be purchased to work with existing operating systems. - If an employee requires very large text or an on screen magnifier it may also help to have a larger monitor so that more text can be viewed at any one time - If the person finds it difficult or time consuming to read large amounts of text or any text at all there are several options available for using text to speech technology. Within the Microsoft office software there is a text to speech reader and speech recognition software, it can be found under control panel, then Speech. There are also free downloads available from the internet if the employee is not using Microsoft or would like to try other programs or voices. If the person has been using this type of software for a long time it is likely that they are using a more advanced software package such as Jaws, Dolphin or Dragon, although it is best for the person to continue with what they are accustomed to using some software has problems with working in conjunction with existing company computer network due to the size of the programs, this should be taken into account before any programs are purchased *Working from hardcopy* - If you are printing a document from a computer and know that a visually impaired employee will be required to read it ensure that it is a font size that they are able to read, the paper is matte (not glossy) and the paper colour is to their preference. - If a hard copy document is being produced that is going to be read my a blind employee and they are able to read Braille then these can be printed using specific printers that also have software to translate it -The individual may also be able to use normal text with the aid of a CCTV, these can be purchased in a desktop version that allow the user to place the document underneath the viewer which then comes up on a screen in enlarged print, this technology is also available in a handheld version for

		smaller areas of text (i.e. labels, telephone directories, mail, etc) - For a more inexpensive option handheld magnifiers can be purchased in stationary stores, these allow the user to increase the size of the text or object by holding it over top of it - The employee may prefer to have the document in electronic copy, if it is not possible to send it to them this way the document can be scanned into a computer file, in addition to full page scanners there are also scanner pens available that will do just a few lines of text at a time and can be transferred to a computer file by just pointing it at the computer to download *Getting around the workplace* - For most people with visual impairments it is helpful to have a good colour contrast to distinguish walls from doors (especially in bathrooms or kitchens) or to mark the ends of each stairs as well as necessary controls such as power and light switches. If the individual is blind this markings may have to be tactile, this can be done by putting stickers on important items that have Braille or Moon symbols - Always ensure that pathways are kept clear of debris or obstacles and that co-workers or cleaning/maintenance staff are informed not to move objects around, this can be avoided by marking off where equipment and furniture should go with coloured tape on the floor *Getting to work* - Access to Work is a government fund that is available to individuals that need reasonable adjustments made to the employment situation in order for them to continue or start working, this encompasses taxi's to work which are often needed to ensure safe transportation for the visually impaired employee - GPS systems are available for people who are visually impaired but wish to be mobility independent, these allow the person to navigate through streets and paths to accurately reach their destination
Hearing impairment		• The type of obstacle that a person with a hearing impairment will encounter is dependant on the level of hearing loss. If the employee is prelingually deaf (before learning to speak) then they may be dependant on sign language or lip reading, something to consider is that people who have not learned spoken language have difficulty getting the complete of proper meaning from written language, especially that which is complex or tense specific. If you want to communicate by reading or writing keep the language simple and to the point. If they are able to lip read then face the person and speak clearly. If they are postlingually deaf, depending on at what stage of learning they lost their hearing, they should have similar reading and writing skills to those of a hearing person. • For individuals with some hearing loss, or tinnitus there are some changes to the environment that should help them to communicate more easily. For computer work the accessibility settings can be changed to have visual alerts come up instead of auditory ones. In an office

		environment have the person positioned so that they can see as much of the space as possible (i.e. facing outward from a corner position) so that they are able to see when something needs their attention. • If the individual uses a hearing aid it may help to have a hearing induction loop installed in their immediate work area so that sounds can be magnified and transmitted to their hearing aid. • One of the best ways to communicate is to use a mobile phone or email to transmit written messages instead of verbal ones.
Speech	Communicating with others, using the phone	• There a many tools available that will allow a user to input information via a keyboard or hand held device which will then convert it to spoken words, these are also available in a telephone device. If the person is working from a computer which uses Microsoft software the individual can also use the text to speech software option available from the control panel then the Speech option. • For a simpler alternative the individual can carry with them a pad and paper, a white board with markers, a mobile phone or a personal digital assistant (PDA) so that they can write or key in memos that can then be shown to another person.
		Habitual
Alcohol – liver disease Drug abuse	Creates a lot of knock on effects, lack of belief in themselves, chronic systemic problems, stigma, depression, sticking to a time schedule, loss of concentration & memory	• If the individual is considered to be recovering i.e. they are not using alcohol or drugs any more, then the side effects which are still ongoing will need to be identified and handled individually. Most frequently individuals will have some level of mental illness (covered in the beginning section), or a deterioration of the liver, heart, lungs or digestive system. Recommendations will depend on what parts of the body have been affected.