

**REHABILITATION WORKERS' PERSPECTIVES OF  
ORIENTATION AND MOBILITY TRAINING  
WITH OLDER VISUALLY IMPAIRED PEOPLE**

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## **ABSTRACT**

Three sequential studies investigate the professional practice of the rehabilitation worker in delivering Orientation and Mobility (O&M) training to older visually impaired people. The first study explored through in-depth, face-to-face interviews (n=17) professionals' views of the relevance of O&M training to visually impaired people. Analysis of the findings suggested that the prevocational training of the rehabilitation worker equipped them with techniques that in the majority of cases required substantial adaptation to meet the needs of their predominant client group (older people). Emerging evidence of a gap between rehabilitation worker training and their practice prompted a second study to establish expert views of what constituted good practice in O&M with older people. Utilising a Delphi method, an expert panel (n=5) produced detailed descriptions of the elements of good practice (family; mobility aids; public transport; assessment; orientation; sighted guide; the individual; road crossing; the public; the senses) that they considered to be essential for effective O&M intervention with older people. This framework provided the structure for the third study which explored – through telephone interviews (n=29) with practising rehabilitation workers – how their experience of practice aligns with the expert view of 'good practice'. A grounded analysis of the data uncovered how the rehabilitation worker adopts a common sense, pragmatic approach to the application of their practice. Whilst this enables them to draw directly from the expertise of their client, there is a lack of the underpinning knowledge they require to be confident that this practice is effective. Appreciating that the practising rehabilitation worker develops skills and abilities in order to deliver O&M that meets the needs of older visually impaired people, recommendations are made for the development of their pre- and post-vocational training.

## **DEDICATION**

This thesis is dedicated to all my family whose support and belief has made this possible. A special dedication goes to my father Bryan, who is my inspiration; to my mother Brenda for her never failing comfort and love; to my wife Marion who is my passion and to my daughter Natasha who is my life.

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## **GLOSSARY**

ADSS	The Association of Directors of Social Services
AMD	Age-related Macular Degeneration
BCU	Birmingham City University (Formally the University of Central England, UCE)
BJVI	British Journal of Visual Impairment
BPS	British Psychological Society
BTEC	Business and Technology Education Council. Vocational qualifications accredited by Edexcel, Pearson
CVI	Certificate of Visual Impairment
DfT	Department for Transport
DoH	Department of Health
Dip HE	Diploma of Higher Education
EC2	University of Birmingham Post Graduate Research Ethical Considerations Form
EX	Expert Panel member (Study 2 Delphi Survey)
FIQ	Further Information Questionnaire (Study 3)
FNBPS	Functionality and the Needs of Blind and Partially-sighted Adults in the UK
GIQ	General Information Questionnaire (Study 2 & 3)
GPS	Global Positioning System
ICF	International Classification of Functioning, Disability and Health
IT	Information Technology
MO	Mobility Officer
N1000	Network 1000
NAA	National Assistance Act 1948

NB	New Beacon Magazine
NHS	National Health Service
NMC	National Mobility Centre
NVivo	QSR Qualitative Analysis Software
ONS	Office for National Statistics
O&M	Orientation and Mobility
QCF	Qualifications and Credit Framework
QSR	QSR International Pty Ltd (NVivo Software Development Company)
RAND	The RAND Corporation (Research and Development)
RNIB	The Royal National Institute of Blind people
RP	Retinitis Pigmentosa
RW	Rehabilitation Worker – Visual Impairment
SCA	Social Care Association
SWOB	Social Welfare Officer for the Blind
TO	Technical Officer
UCE	University of Central England
UK	United Kingdom
USA	United States of America
VAMC	Veterans Administration Medical Centre Chicago
VI	Visual Impairment
WHO	World Health Organisation

# **CHAPTER 1: INTRODUCTION**

## **BACKGROUND TO THE RESEARCH**

This thesis presents three sequential studies that investigate the practice of the rehabilitation worker delivering services to visually impaired people in the United Kingdom (UK). These studies were undertaken between 2006 and 2012 (Study 1, 2006–9; Study 2, 2009–10; Study 3, 2010–12) and focus on the orientation and mobility (O&M) techniques and training that are considered to be one of the key specialisms of the rehabilitation worker.

The author of this thesis trained as a rehabilitation worker (visual impairment) in 1994. Subsequently he lectured on O&M (2000 to date) on three courses: the Guide Dogs for the Blind Association (University of Birmingham accredited) Diploma of Higher Education (Dip HE) in Rehabilitation Studies; the University of Central England (UCE) – latterly known as Birmingham City University (BCU) – Dip HE in Rehabilitation Work; and currently on the Provision Solutions Ltd BTEC Professional Diploma in Rehabilitation Studies (Visual Impairment) Level 4 and 5.

An informal comparison of the content of these courses revealed a consistency in their key texts (Hill and Ponder (1976), *O&M Techniques: a Guide for the Practitioner*; Blasch *et al* (1997), *Foundations of O&M* (Second Ed.); and Jacobson (1993), *The Art and Science of Teaching O&M to persons with visual impairments*) and the O&M techniques they deliver. With some of these techniques designed for war blinded veterans – a demographic that contrasted with the visually impaired people the author had typically worked with – a concern over their suitability and relevance arose. Seeking to establish through research whether these concerns were justified, a preliminary search of literature (undertaken in 2006) aimed to find evidence of the suitability and relevance of these interventions to visually impaired people in

the UK. This search revealed a potential gap in empirical research and also uncovered a study that was fundamental in the focus of the three studies presented in this thesis.

In spite of its regional title, the ‘Birmingham Study’ of Franks (2000) offers a national perspective of the rehabilitation worker’s practice. In her findings Franks identifies 85 specific work activities that describe the full range of services these professionals deliver on behalf of their employers (social services, national and local charities). Suggesting that “the very breadth of the role they are expected to assume appears to equate with the self-perception of being a ‘general dogsbody filling gaps in the system’” (Franks, 2000, p.206), she alludes to an underlying sense of confusion about the rehabilitation worker’s role that permeated her participants’ responses. It is possible that this apparent lack of professional positioning of the rehabilitation worker is in part due to the organic way the profession has evolved, but it is also compounded by the absence of professional registration and the lack of empirical research into the value and effectiveness of the rehabilitative interventions they employ.

In contrast to this lack of profession-focussed evidence, there is a wealth of research that explores the experiences, needs and circumstances of the rehabilitation worker’s clients (visually impaired people). Research such as that of Douglas *et al* (2006) and Pey *et al* (2007), offer an in-depth picture of service provision, and met and unmet need for this sector of society. However, for the effective cohesion of service providers and the service receiver the trained professional – in this case the rehabilitation worker – must be equipped with the skills to deliver services that match the unmet need, and are economical, time-efficient and content-effective. Concerned that there was little evidence confirming the relevance of rehabilitation worker training to the needs of visually impaired people, the author undertook a

seven-year personally-funded programme of three studies into the professional activities of rehabilitation workers (visual impairment).

### **Rehabilitation workers**

Employed within social services and voluntary agencies (national and local charities), the rehabilitation worker delivers services to visually impaired people. These services aim to offer strategies that challenge the impact of a visual impairment. Of the 85 work activities identified by Franks (2000), three, mobility, daily living skills and communication, have long been considered “core...established major components” (p.47) of both their training and role. Although the professional activities of the rehabilitation worker have been fully documented by Franks, a potential gap in published literature on the subject of vision rehabilitation would suggest that there is limited general knowledge of this field. To introduce the professional at the heart of the studies presented in this thesis, a brief overview of the evolution of rehabilitation worker training in the UK is followed by an introduction to the population (of visually impaired people) to whom their services are offered.

### **Rehabilitation Worker Training**

Franks’ (2000) chronological account of the professions providing services to visually impaired people describes a significant evolution that occurred during the latter years of the 20<sup>th</sup> Century. A drive by the regional associations for the blind to professionalise services heralded a sea change in focus, from the long standing home teacher (late 1800 to 1963) profession; to the creation of the Social Welfare Officer for the Blind (SWOB) in the early 1960s and the later social worker for the Blind (Franks, 2000; Pavey, 2011). At approximately the same time as this evolution from teacher to social worker occurred, the O&M techniques developed in post-war United States of America (USA) were introduced into the UK. These



techniques formed the basis of the 1966 O&M Instructors course delivered at the National Mobility Centre (NMC) (formally known as the Blind Mobility Centre) in Birmingham (Blasch *et al*, 1997; Thornton, 1968; Dodds, 1996). With a number of courses – in addition to the NMC course – being delivered throughout the late 1960s (by the Midlands Mobility Centre, the Royal National Institute of Blind People, the Royal School for the Blind, St Vincent's School for the Blind and Partially Sighted (Neustadt-Noy and La Grow, 1997)) there was enough interest for a mobility instructor profession to emerge.

The nascent profession saw further developments in 1987 with the combining of the technical officer (for the blind) (TO) qualification with that of the mobility officer (MO) to form the rehabilitation worker programme (Dodds, 1996; Franks, 2000; Pavey, 2011; Stone, 1996). Since this time the academic level of qualifications has risen from a training board governed Rehabilitation Worker Certificate to the Diploma of Higher Education/Foundation Degree level and Qualifications Credit Framework (QCF) level 5, BTEC Professional Diploma. It is important to note that this progression in academic recognition has not been accompanied by a professional registration process. The freedom afforded a profession that is not registered or regulated, is in part highlighted by the 84 variations in job titles identified by Franks (2000). With such variation there is an opportunity for a general lack of understanding about the roles and responsibilities of the rehabilitation worker. Therefore, for the purpose of this thesis the term rehabilitation worker will be applied to describe a QCF Level 5 (or recognised equivalent such as TO/MO combined) qualified professional delivering specialist rehabilitative services to visually impaired people.

## **Visual impairment**

The most recent evidence suggests that there are around 360,000 people registered blind (severely sight impaired) and partially sighted (sight impaired) in the UK (RNIB, 2012b).

Registration is confirmed by the completion of a National Health Service (NHS) Certificate of Visual Impairment (CVI).

The CVI explanatory notes (DoH, 2013) reveal that registration is determined by two key considerations: levels of visual acuity and extent of visual field. These considerations inform the ophthalmologist's opinion about the impact of sight loss on the patient's functional ability as defined by the National Assistance Act (NAA) (1948). The NAA identifies two categories of registration:

- Blind/severely sight impaired – “So blind that they cannot do ANY work for which eyesight is essential”
- Partially sighted/sight impaired – “Substantially and permanently handicapped by defective vision caused by congenital defect or illness or injury”

As the notes go on to explain, the culmination of this assessment process is the completion of a CVI that forms the link between medical assessment and access to social care services.

Typically, it is the submission of this certificate to the provider of social care – commonly a local council social services department or a local or national charity contracted to deliver a service on behalf of the local council – that results in contact being made by a rehabilitation worker.

According to Charles (2007) approximately half of the 1.6 to 2.2 million people aged 65 and over in the UK with a visual impairment can be classed as experiencing moderate to severe

sight loss. Consequently, it is possible that a large percentage of the 360,000 people registered as blind/severely sight impaired and partially sighted/sight impaired are older people. The case for this proposition becomes stronger with the RNIB's estimation that of the 1.86 million people living with a sight loss in the UK, 25,000 are children (0–16), 80% are over the age of 60 and 45% are over the age of 80 (RNIB, 2012a). In addition, they predict that the population of visually impaired people will grow to 2.25 million over the next decade. This is reported by Lesley-Anne Alexander, Chair of the UK Vision Strategy Strategic Advisory Group and Chief Executive Officer of the RNIB, as “evidence...[that will]...inform strategic thinking for health, social care and voluntary sectors” (RNIB, 2012b, p.3).

## **THE AIMS OF THE THESIS**

Emerging from the author's concern that there is little evidence of the value and effectiveness of vision rehabilitation intervention, the three studies presented in this thesis investigated the rehabilitation worker's practice and opinions of 'good practice' rehabilitation that meets the needs of people with a visual impairment in the UK. The overarching aims of these three studies were to:

1. explore the professional activities of the rehabilitation worker;
2. reach consensus of opinion on what constitutes good practice O&M with older visually impaired people; and
3. analyse the rehabilitation worker's practice of O&M training with older visually impaired people.

Empirical evidence of this value offers an opportunity to develop guidance that can be drawn upon by rehabilitation workers to promote confidence in their techniques of therapeutic vision

rehabilitation (Franks, 2000), and aid the rationalisation and maintenance of the services they provide to visually impaired people in the UK. Equally, evidence of good practice and experience-influenced approaches to practice delivery contributes to the collective foundations of rehabilitative theory employed by training providers.

Bringing together the findings of the three studies, the aim of this thesis is to offer the field of rehabilitation “a sound research base upon which practice may reliably rest and thereby be enabled to move forward with confidence in...the twenty-first century” (Franks, 2000, p.213).

## **THESIS OVERVIEW**

This section provides a description of each chapter in the order they are presented in the thesis. To maximise the potential value of the studies to the field of vision rehabilitation, it was considered important that each study was presented in its entirety and in detail within an assigned chapter (Study 1, Chapter 4; Study 2, Chapter 5; Study 3, Chapter 6). In doing so, whilst this thesis offers each study in the form of a stand-alone research report – that includes links to the literature review, details of the research method, findings and recommendations – it also reveals the links, themes and evolutionary nature that permeate the research programme as a whole.

## **Chapter 2: Literature Review**

A potential dearth of literature in a field of study offers an opportunity to reject the influential dangers of received theory (Charmaz, 2010). In addition, it can contest the negative elements of a literature review, which, as described by Maxwell (1996), restrict the focus to published literature, encourage an attempt to adopt the widest possible perspective rather than focussing on the relevant literature and to be descriptive rather than use “the literature...as an authority to be deferred to” (Maxwell, 1996, p.27). Therefore, this chapter begins by describing the

types and range of literature accessed along with the strategy employed by the researcher to focus on relevant and authoritative published and unpublished literature.

In order to understand the relevance of rehabilitative intervention to those experiencing a visual impairment, the demographics of the visually impaired population in the UK and the range of rehabilitative interventions on offer to them is considered. Establishing the services provided by rehabilitation workers and identifying their predominant client group, this section of the literature review secures the relevance of the lines of enquiry adopted for each of the three studies presented in the subsequent Chapters (4, 5 and 6) of this thesis.

The chapter goes on to discuss the alignment of rehabilitation worker training with the services they provide. Describing the introduction of O&M techniques into the UK, this chapter then offers a description of the interrelated elements of the classic long white cane technique of two-point touch. In doing so, this review of literature explores the relationships between the perspectives of the originators of this technique and those of the UK pioneers of this type of independent travel for visually impaired people. With O&M considered a specialism of rehabilitation worker training, this discussion progresses to review how a reverence for this subject could impact upon its theoretical and practical development.

The lack of literature in this field (as mentioned above) potentially leaves little support for the rehabilitation worker to integrate classical O&M techniques to the UK population of visually impaired people. For this reason this chapter continues by drawing on the theoretical framework of professional development from novice to expert and considers the extent to which the absence of empirical research influences the development of the models of practice employed by rehabilitation workers.

This chapter concludes by drawing together the main features of the review and linking the findings to the aim and research question of Study 1 (as presented in Chapter 4).

### **Chapter 3: Methodology**

Chapter 3 presents the philosophical perspectives employed by the researcher over the three studies presented in the thesis. This begins with an exploration of the researcher's interpretivist interest in "people, and their interpretation, perceptions, meanings and understanding, as the primary data source" (Mason, 2006, p.56).

The chapter progresses by considering the impact the logistical constraints of a self-funded study can have on epistemology and effective research. In this section of the methodology chapter researcher bias is discussed, balancing the value of insider influence with the possible conflicts of interest presented by the researcher's employment as a training provider and experience as a rehabilitation worker.

Following this the three studies are contextualised within the methodological perspective of the researcher, providing an overview of the data collection methods of each (further details of these will be discussed in each of the studies' relevant chapters). Undertaken between 2006 and 2012, an emergent design where each study responded to the findings of the antecedent study offered an opportunity to logically and systematically develop each study. This chapter progresses the concept of emergence whilst considering the grounded perspective – in which theoretical sensitivity informs the epistemology of the emergence of theoretical categories (Kelle, 2007) and themes – employed for the analysis of data.

After discussing the ethical considerations of research, the chapter goes on to include an appreciation of the importance of the empowerment of people with disabilities and the decisions made for these studies to capture professional practitioner perspectives. The chapter

progresses by contextualising the research questions of all three studies before concluding with a review of the key methodological points and offering a reporting protocol for the effective presentation of data, coded for anonymity whilst securing its traceability.

The following chapters (4, 5 and 6) present the data collection process and findings of each study in the chronological order in which they were undertaken (2006–2012). Each of these studies emerged from the findings of the previous study; therefore, it was considered important in understanding the researcher's journey that the themes and recommendations of each study (and the Literature Review) are revisited within the presentation of each of the studies. In addition, it is envisaged that this approach will maximise the potential for the data and findings to be used by training providers and practitioners.

#### **Chapter 4: Study 1 – Exploring the rehabilitation worker's opinion of the relevance of their training to their practice and the needs of their clients**

This chapter of the thesis describes the process and findings of Study 1 (2006–2009).

The development of this study's focus was based on the findings of an informal preliminary literature search undertaken prior to the Literature Review presented in Chapter 2 of this thesis. Consequently, this chapter commences by exploring the findings of that preliminary literature search, which suggested there was a potential gap in empirical research into the effectiveness of the rehabilitative interventions employed by rehabilitation workers. It then progresses by contextualising the aim of this study (to investigate the rehabilitation worker's experience of practice, their opinions of the training they had received and their experiences of professional development) with the research question: In what ways do rehabilitation workers think their training aligns with their professional practice and the needs of their clients?

This is followed by a detailed account of the methods employed to capture data for Study 1. This involved the development of a face-to-face interview schedule and the production of a video to establish consensus of opinion on the classical theoretical long white cane two-point touch technique. The selection process and the participant characteristics of the convenience sample of rehabilitation workers (n=17) from London and the south east of England are described.

This chapter progresses by presenting the findings of the research, describing how the QSR qualitative analysis tool NVivo 8 was applied, utilising the interview schedule questions as category headings. The data analysis process maintained the exploratory nature of this study focussing on the grounded “coding of themes rather than actions” (Charmaz, 2010, p.137) to offer an emerging descriptive account that would inform the development of the second study (Study 2 presented in Chapter 5). The results of this study are presented in detail to offer an understanding of the relationship between the findings and the subsequent studies. Following the presentation of results the emerging themes are discussed. These themes suggest that:

- The rehabilitation worker training providers deliver O&M techniques in their classical form (the form in which they were introduced into the UK in the mid-1960s).
- Only a very small percentage of a rehabilitation worker’s clients need training in the classical techniques.
- There appeared to be feelings of professional discomfort that when adapting O&M techniques they are in some way ‘breaking the rules’ imposed upon them during their training.
- Opportunities for professional development were predominantly experience based.



- Access to the range of experiences required by a rehabilitation worker to validate their skill base is limited and ad hoc.

This study culminated in the publication of findings in the British Journal of Visual Impairment (BJVI) report entitled ‘From novice to expert, an investigation into the professional development of rehabilitation workers through a study of practice in technical rehabilitation interventions’ (Dodgson and McCall, 2009) (Appendix 1).

The conclusion of this chapter places the emerging themes in their current context by reviewing their links with the findings of the Literature Review presented in Chapter 2. This leads on to the posing of a number of recommendations for further study, bringing together the findings of this study with the focus and process of Study 2 presented in Chapter 5.

## **Chapter 5: Study 2 – Expert opinion of good practice O&M training with older visually impaired people**

This chapter describes the second sequential study (2009–2010). Based on the findings of Study 1 this study was designed to ask the research question: How do experts define good practice in relation to O&M training with older visually impaired people?

The chapter begins with a construction of the aim of the study, which draws on the findings of the antecedent study. Exploration of the rehabilitation worker’s practice suggested that they experience myriad O&M events from which good practice paradigms could be shaped. However, their progression from the context-free rule-led practice of the novice to the “immediate, unreflective situational responses... [and]... intuitive judgment” (Dreyfus and Dreyfus, 2005, p.779) of the expert, appears to be hindered by a sense that any adaptations of working practice they make to meet the needs of their clients is a transgression of the rules they were taught when training to be a rehabilitation worker. Therefore, in employing a

Delphi method with the aim of nurturing creativity and capturing innovative opinion (Gabb *et al*, 2006; Linstone and Turoff, 2002), a panel of ‘experts’ (n=5) was formed to consider what constitutes good practice in the delivery of O&M. Similar to the approach adopted in Study 1, the data collected is presented in detail in order to offer an understanding of the Delphi process and the evolution of the participant responses.

Following this, the discussion progresses to describe the three rounds of the Delphi survey designed to generate consensus of opinion on the questions: what O&M service is required by the rehabilitation worker’s ‘typical’ client (older visually impaired people) and what are the ‘core’ and ‘individual specific’ themes of an O&M service that constitute effective practice for the general population of older visually impaired people?

The chapter goes on to investigate the features of the Delphi survey method. It is designed to “collect and distill [*sic*] the anonymous judgments of experts using a series of data collection and analysis techniques interspersed with feedback” (Skulmoski *et al*, 2007, p.1) and was considered an optimum data gathering tool for this study. This is followed by contextualising the findings of the Literature Review (Chapter 2) and the experience of the researcher in the purposive sampling strategy employed to select the five participants (from York St John University, BCU and Provision Solutions, plus a freelance trainer) who formed the panel of experts.

Describing the method of the Delphi survey, this chapter progresses with details of the use and structure of a vignette designed to counter the opportunity for divergence which can be present in this type of nominal group process (Cohen *et al*, 2007). Following this, the structure of each round is described in detail.

The results of the survey are then presented offering the summarised responses – as validated by the panel – of each round of the survey, these include:

- the validation of a vignette representing an older person with a visual impairment – a rehabilitation worker’s ‘typical’ client;
- a prediction of the type of O&M services that this ‘typical client’ would require;
- the extrapolation of themes that are applicable to the general population of older visually impaired people ;
- the identification of ‘core’ (family, mobility aids, public transport, assessment, orientation, sighted guide, the individual, road crossing, the public, the senses) and ‘individual-specific’ (other professionals) elements of O&M practice with older visually impaired people; and
- consensus on what constitutes good practice O&M with older visually impaired people.

The themes emerging from the findings are then discussed, drawing links between the findings and literature. Consideration is offered to the general philosophy of the rehabilitation profession to the application of theory to practice and the development of expertise.

In the conclusion of this chapter the findings of this study are linked to those of the antecedent study and recommendations are made for the further research activities of Study 3 (presented in Chapter 6).

## **Chapter 6: Study 3 – The rehabilitation worker’s experiences of delivering O&M training to older visually impaired people**

This chapter describes Study 3 (2010–2012) that sought to answer the question: How does a rehabilitation worker’s experience of practice align with the good practice defined by experts?

Theory often provides a formalised knowledge that cannot be expected to equip a novice with the tools needed for the complexity of professional practice. However, experience can offer the subtlety and variety required to embellish a theory and ultimately prove its relevance and reality (Benner, 2001; Haag-Heitman, 1999). Having identified the domains of good practice provided by experts in Study 2, this study aimed to capture the complexity and reality of the rehabilitation worker’s O&M practice.

The chapter begins by reviewing the context of this study within the sequence of the three studies presented in this thesis. A description of the aim and findings of Study 2 contextualises this study within the sequential framework of the previous two studies.

The chapter progresses with a description of the telephone interview method and the sample selection process by which 29 practising rehabilitation workers from across the UK were recruited. Following this, the one-hour flexible design telephone interview schedule is discussed. The digitally recorded interview data was transcribed (verbatim) and processed through three stages of grounded analysis (initial coding, axial coding and theoretical coding) with the QSR qualitative analysis software NVivo 10. The initial coding stage saw the data analysed line by line and each statement, sentence or discussion allocated to one or a number of the 37 schedule questions. The second stage of coding (axial) saw the data reviewed and analysed, finding 19 themes that permeated the participants’ responses. For the final stage of

the coding process (theoretical), the focussed themes were analysed and 33 categories emerged.

This chapter goes on to discuss the emerging themes of the study:

- **Meeting the needs of older visually impaired people.** Discussing the challenges – the biopsychosocial implications of age and sight loss has on the rehabilitative process.
- **Effective rehabilitative pedagogy with older people.** A consideration of how the rehabilitation worker constructs training activities to meet the needs of the older person whilst sensitive to the biopsychosocial implications of age.
- **Adapting rehabilitative practice.** Exposing how the experiences of the rehabilitation worker shape their practice and perspectives of working with older visually impaired people.

Uncovering the complexity of the collaborative working relationships between the rehabilitation worker and their client, it appears that the respect the professional has for the expertise of the visually impaired person directly influences their ability to form generalised models of good practice. This study not only offers an insight into the differences between the O&M techniques of a rehabilitation worker's training and their practical application but more importantly the reasons why these differences occur. Describing in detail the type of working relationship required for the rehabilitation worker's work with older people to be effective, and the attributes required to develop these relationships a picture emerges of the factors that need to be in place for the rehabilitation worker to develop their practice, competence and expertise.

Finally this chapter concludes with a brief overview of the context of the study in relation to the emerging themes that are discussed in Chapter 7.

## **Chapter 7: Discussion**

This chapter draws on the themes that emerged from the three sequential studies.

Beginning by considering the legacy of the evolutionary development of the profession of rehabilitation in the UK, the theme of a pragmatic ‘common sense’ approach to rehabilitative intervention is conceptualised as the bridge between prevocational theory and the practice adopted by the practising professional. Recognising how this situation exposes the professional to unvalidated professional development and an unnecessary trial and error approach to developing paradigms of practice, this chapter goes on to discuss the generation of good practice guidelines as a tool to facilitate the progression from novice to expert.

Taking into account the rehabilitation worker’s knowledge of visual impairment, the chapter progresses discussing how the complexity of old age appears to confound rehabilitative strategies and whether increased sensitivity to the impact of old age is the key to providing vision rehabilitation to this sector, older people being the predominant client group of the rehabilitation worker. Following this, the practical adaptations of O&M techniques are discussed in relation to their relevance to the rehabilitation worker’s predominant client group and those for whom the techniques were originally developed.

The chapter concludes with a brief reflection on the key elements of the themes discussed.

## **Chapter 8: Conclusion and recommendations**

Presenting the studies in a chronological framework, this chapter begins by reflecting on the structure of each study and evaluating the links that underpin the development of their

research questions. This chapter exposes the logical progression from the initial literature search to the formulation of the first exploratory study. This discussion is extended to demonstrate the development of the focus for the second study which aimed to produce an account of good practice O&M training and culminates in the identification of a number of core and individual specific themes. Following this, the focus of the third study is revealed: the investigation of the real life application of O&M training by rehabilitation workers.

Much of the reflective activity of the researcher has been discussed throughout this thesis. However, to support the credibility, transferability, dependability and confirmability of the research process, the implications of the researcher being an experienced and well-known practising professional within the field of vision rehabilitation are contextualised within the decision making, participant selection and data analysis processes.

Drawing links that establish the relevance of the three studies presented in this thesis to the field of rehabilitation, this chapter culminates in the development of a number of recommendations. These include further research aimed at capturing visually impaired peoples' experiences of rehabilitative intervention and the production of a number of publications that offer good practice guidelines for O&M training with older visually impaired people for training providers, rehabilitation workers and service providers.

## **References/Appendices**

Finally the References and Appendices related to all of the chapters of this thesis are presented in full at the end of the thesis.

The next chapter, the Literature Review, exposes the limitations a lack of empirical research can have on the knowledge and application of professional activities. Ravenscroft (2012) argues in his inaugural editorial of the BJVI that “encouraging professionals to become

researchers, and to disseminate their critical reflective practice can only enhance the outcome for all” (p.60). The merging of research activities and the professional role (as a rehabilitation worker) of the thesis author is intended to offer a reflective whilst generative counter to the lack of research with the aim of presenting empirical and directly applicable evidence to the research community and practising rehabilitation workers.



## **CHAPTER 2: LITERATURE REVIEW**

### **CHAPTER OVERVIEW**

This chapter reviews literature pertaining to the rehabilitation strategies offered to visually impaired people in the UK. The main focus of this review is to contextualise the culture of vision rehabilitation in terms of the:

1. Predominant population of people in the UK with access to vision rehabilitation
2. Relationship between sight loss and rehabilitative intervention
3. O&M strategies considered to be a specialism of the rehabilitation worker
4. Development of innovative rehabilitative strategies that meet the need of the rehabilitation worker's predominant client group

An informal search of literature undertaken in 2006 – at the beginning of the author's doctoral studies – suggested there was a potential gap in empirical research. To establish the parameters of this literature review this chapter firstly describes the range and type of literature gathered, the review process and the procedures employed by the author to maximise the potential of the review.

To conceptualise the relationship between the rehabilitation worker and visually impaired people this review appraises the literature describing the current and projected population of visually impaired people in the UK. This is accompanied by an examination of the suitability of the rehabilitative interventions that challenge the impact a visual impairment can have on an individual.

Finding there to be a potential gap between rehabilitative strategies and the needs of visually impaired people, this review goes on to explore the value and suitability of rehabilitation worker training. The review examines the relevance of the O&M techniques to the current

predominant population of visually impaired people in the UK compared to those for whom the techniques were originally developed. Offering a detailed description of the techniques of O&M – considered to be a specialism of the rehabilitation worker – along with charting their introduction into the UK, this chapter presents an evaluation of the perspectives of the technique originators and the landscape of training provided to professionals working with visually impaired people in the UK.

With the initial (informal) literature search finding limited evidence to support the rehabilitation worker in their interpretation of O&M techniques to meet the needs of visually impaired people in the UK, it was considered important to understand how the rehabilitation worker applies their theoretical understanding in practice. Therefore, this chapter goes on to review a continuum of professional development as a theoretical framework that facilitates career progression through the recognition of practical experience and analyses the influence this has on the development of intuitive models of practice and expertise.

This chapter concludes by reviewing the key features of the literature review and contextualising them with the aim and research themes of the first study.

## **LITERATURE REVIEW PROCESS**

The broad aim of a literature review is to establish the relevance and contribution of a body of work to the field in which the study is taking place, described by Hart (2005) as “a thorough critical evaluation of existing research [that] often lead[s] to new insights by synthesizing previously unconnected ideas” (p.2). He alludes to the wider context of the literature review as an activity that offers the opportunity to avoid duplication; to position the research within the wider context of the field; to avoid pitfalls and promote effective methodology; and to identify “gaps in existing research” (*ibid*, p.3). However, the findings of a preliminary

literature search in 2006 suggested there was a lack of literature within the field of rehabilitation – an issue also reported by Franks (2000) and more recently Pavey (2011) – that would challenge opportunities to conceptualise research and learn from others.

From the grounded perspective of the researcher, the limits imposed by this lack of research and peer reviewed literature offered the opportunity to promote relevance and to make a unique contribution to this field of study and professional practice. Whilst the preliminary search afforded the researcher a “theoretical sensitivity” (Bryant and Charmaz, 2011, p.20) and familiarity with the relevant literature, the absence of the influence and preconception a review can instigate allowed for the appreciation of the grounded “recommendation that the researchers should enter the research domain with an open mind” (*ibid*). Although working from this perspective can secure the uniqueness of a project, the benefits of learning from a literature review to avoid methodological pitfalls was alluring. Therefore, to promote the reliability of the methods employed in the three studies presented in this thesis, the literature search was considered an ongoing monitoring process that continued throughout the period of the studies (2006–2012).

Searching a variety of databases online and through the University of Birmingham Library (including: findIt@Birmingham; COPAC National Academic and Specialist Library and UBIRA – University of Birmingham Institutional Research Archive), the keywords employed for this review were orientation, mobility, expert, novice, rehabilitation, blind, partially sighted, visual impairment and older people. In addition to the online literature search, the physical libraries of the University of Birmingham School of Education and RNIB were accessed throughout the study period. In recognition of a potential gap in the empirical research and literature, this thesis includes the four main literature domains of international

specialist journals; textbooks; unpublished reports (PhD theses) and voluntary sector published research; and what “could be described as ‘grey literature’, in that it often consisted of anecdotal accounts” (Douglas *et al*, 2009) from professional publications (such as NB: New Beacon).

Much of the peer reviewed literature pertaining to rehabilitation, in particular O&M, is produced in the form of textbooks or periodical publications originating in the USA. This includes titles such as the ‘Foundations of Rehabilitation Teaching, with persons who are blind or visually impaired’ (Ponchillia and Ponchillia, 1996); ‘The Foundations of O&M’ (Wiener *et al*, 2010); and the Journal of Visual Impairment and Blindness. These publications can be found on the reading lists of the Guide Dogs for the Blind (1995), BCU, Dip HE/Foundation Degree (Hook, personal communication, e-mail to author, 7/8/2008) and BTEC Diplomas in Rehabilitation Studies currently offered in the UK. Even the BJVI, a UK-based publication, has an international stance including reports from around the globe. The inclusion of these publications in the literature review process has offered a global perspective of empirical research into the rehabilitative interventions for visual impairment, which in turn has facilitated the evaluation of the relevance of rehabilitative intervention to visually impaired people in the UK. This method combined with the theoretical framework of the Dreyfus and Dreyfus (1986, 2005) Professional Development Model (reviewed in Theoretical Framework section, Chapter 2,) – which describes the interpretation of theory into practice – has been instrumental in the development of a grounded approach aimed at producing a literature review that interprets a range of literature from a UK, visual impairment perspective.

## **VISUAL IMPAIRMENT AND REHABILITATION**

Widely accepted as the UK authority on visual impairment issues, the RNIB (2012b) estimate there to be 1.86 million people in the UK with a “sight loss that has a significant impact on their daily lives” (p.5). They predict that the number of people with a sight impairment will rise by nearly 22.3% (400,000) during the next decade to over 2.25 million (*ibid*).

Interestingly, this rate of expansion is above the Office of National Statistics (ONS) projection of a 0.63% annual growth rate, or 17.0% increase in the total UK population over the next 25 years (Rutherford, 2012).

When we consider the demographics included in the RNIB’s estimate it is perhaps unsurprising that their figures escalate at a rate higher than the expansion of the national population. These figures include not only those people (across the full age range) registered as blind/severely sight impaired and partially sighted/sight impaired (a total of 358,000 people) but also those “whose sight is just better than the levels which qualify for registration” (RNIB, 2012b, p.6); those people receiving hospital treatment; and those “whose vision loss could be improved by wearing correctly prescribed glasses” (*ibid*). Whilst it could be assumed that these groups will increase in line with population forecasts, there are common diseases – with related eye conditions – that have increased within the population at rates higher than predicted population growth. One example is the metabolic disorder diabetes; it has reportedly increased in the English population by 25% from 1.9 million to 2.5 million in recent years (Young, 2012). Linked to this disease and a cause of visual impairment is the eye condition diabetic retinopathy. A rise in the prevalence of conditions such as diabetes that have associated eye conditions would increase the visually impaired population independently of population growth. Taking factors such as this into consideration would be a major reason why the RNIB’s predictions outpace those of the ONS.

There is a broad consensus in literature (including the RNIB and ONS) that one sector of society that will increase in the coming years is older or elderly people (Age UK, 2013a, 2013b; DoH, 2001a; Rutherford, 2012; RNIB, 2012b). Statistics suggest an increase of 23% by 2018 of people aged 65 years and over (Rutherford, 2012) and an even higher increase of 70% of people over the age of 75 (Help the Aged, 2006). This sector of the population is susceptible to age-related macular degeneration (AMD), an eye condition most commonly experienced by older people (Hicks, 2007). Affecting the central retinal region known as the macula (Moorfields Eye Hospital, 2006), this condition is succinctly described in functional terms by the RNIB (2013a) in the following way:

AMD causes problems with your central vision, but does not lead to total loss of sight and is not painful. AMD affects the vision you use when you're looking directly at something, for example when you're reading, looking at photos or watching television. AMD may make this central vision distorted or blurry and, over a period of time, it may cause a blank patch in the centre of your vision.

The RNIB's figures suggest that of the 14.1 million people in the UK who are over 60 years of age (who are all at risk of losing their sight), one in nine have a sight loss and AMD is considered to be the current largest cause of visual impairment in the UK (RNIB, 2012a). Although this estimate includes a greater age range (60 years of age and over) it is conservative when compared to the estimate of Charles (2007) who concludes that there are between "1.6m and 2.2m older people aged 65 years and over in the UK with a visual acuity" (p.202) at a level that would prevent them from holding a driving license. Charles' estimate also includes people meeting similar criteria to those of the RNIB, such as those waiting for surgery or with uncorrected refractive error (*ibid*). However, as he goes on to suggest, the population of those experiencing a visual impairment and the prevalence of eye conditions are just elements of the picture of sight loss in the UK and these figures do not present a

reflection of the psychosocial implications of experiencing a sight loss later in life.

Nevertheless, the statistics and details he does provide are in his words the “most reliable current guide to understanding the size of the older visually impaired population” (2007, p.273) and offer a firm argument for not only social care funding but also for service provision for this sector of society. In addition, evidence of this nature affords the rehabilitation profession a barometric message that their client group of older people is on the increase.

It is clear from the literature cited above that accurately establishing the range and prevalence of sight loss across the population is challenging. With an increasing population there is broad agreement in literature that the number of people experiencing a visual impairment in the UK will increase over time. Of this population, the predictions of an increase in older people would appear to be secure and as this sector of society has the largest prevalence of visual impairment it may be safe to assume that they will become the predominant consumer of social care and voluntary sector services.

### **The implications of age**

In addition to an in-depth knowledge of visual impairment, the implications of the ageing process need to be exposed for the social care and rehabilitation needs of older visually impaired people to be met.

It is stated by Bengtson *et al* (2005) that “gerontologists focus on three sets of issues: biological and social processes of ageing; the aged themselves; and age as a dimension of structure and social organisation” (p.16). This broad biopsychosocial approach to ageing offers a structured framework that allows for a deconstruction of what is meant when referring to older people as a sector of society.

Biologically, the impact of age on the physical form is described by Kirkwood (2005) as “neither more nor less than the progressive accumulation through life of a variety of random molecular defects that build up within cells and tissues” (p.74). He goes on to describe this as “resulting in age-related frailty, disability and disease” (*ibid*). Whilst offering molecular defects as a rationale for explaining ageing, Kirkwood’s inclusion of disability demonstrates the commonly held view that ageing and disability are inextricable. With the Department of Work and Pensions (DWP) (2009) reporting that 40% of people aged between 65 and 74 and 56% of people aged between 75 and 80 have a disability (which undoubtedly includes conditions such as arthritis and AMD), it is not surprising that many illnesses associated with age are “not seen as ‘genuine’, [but] merely a factor of age” (Crawford and Walker, 2008, p116). However, although it may be difficult to distinguish between physical ageing and the effect of disease or illness it is important that the impacts of illness and disability are not adopted as a descriptor of old age.

Physically, as age increases one experiences a “decrease in muscle mass and contractile force or weakness” (Saxon *et al*, 2010, p.59). This according to Martin (2013) is a key contributing factor in the high number of falls experienced by this sector of society. Whilst accepting that older people experience a lessening of strength and stamina, the range of functional capacity decline is “largely determined by factors related to adult lifestyle” (Kalache *et al*, 2005, p.40). Therefore, the inevitable physical decline experienced by older people is wide ranging and dependent upon factors such as exercise, the environment, “smoking, alcohol consumption and diet” (*ibid*). Interestingly the findings of Goodpaster *et al* (2006), suggest that the decrease in strength is not solely a result of a loss of muscle mass but also “a significant decline in the quality of the muscle” (p.1063). Therefore, whilst lifestyle choices such as exercise and activity can influence the rate of physical decline experienced by older people, it



is inevitable that as age increases strength and stamina decrease. These changes can be far reaching and affect daily lives in many ways. This can include experiencing difficulty with cooking, cleaning, personal care, mobility and maintaining relationships.

Whilst care must be taken to understand that disability and illness are not a foregone conclusion in old age, the high levels of older people experiencing a disability calls for this issue to be taken into account when working with this sector of society. This is illustrated in Martin's (2013) summary of literature on the subject of falls and older visually impaired people, in which she states that "older people with sight loss are much more prone to falls than their sighted peers" and "the risk of injury from falls is nearly twice as high" (Martin, 2013, p.1).

Psychological old age brings with it "a shrinking of the temporal horizon" (Labouvie-Vief, 2005, p.229), experiences of mortality and loss, fear of change, ill health and changes in aspirations (*ibid*; Daatland, 2005; Edwards *et al*, 2012). Interestingly, literature suggests that older people have an ability to counter these objective experiences and "have a higher level of subjective well-being than individuals in any other age group" (Edwards *et al*, 2012, p.1). It is this 'resilience thinking' that enables them to cope effectively with the changes imposed upon them by ageing, disability and illness. It could be argued that resilience thinking and coping are defence mechanisms that protect the ageing individual from the harsh reality of old age. However, the need for older people to develop a "strategy to maintain self-esteem when autonomy is threatened" (Daatland, 2005, p.374) would suggest that there is limited external support available to them.

Older people's ability to achieve high levels of subjective resilience (compared to younger people) is admirable. However, it is created from experience of crisis and subsequent

adaptation (Edwards *et al*, 2012). Whilst this may come from a lifetime of experience, the build-up of this experience may also impact upon everyday cognitive function. The common assumption is that cognitive processing becomes slower as age advances. The reason for this, as recently suggested by Ramscar *et al* (2013), is a “change in performance [that] reflects memory search demands, which escalate as experience grows” (p.5). In short, they suggest that the accumulation of experience results in a slowing of information processing. There are many diseases and disabilities that affect memory and cognitive processing associated with old age, including the range of physical changes in the brain that are described by the umbrella term dementia (such as Alzheimer’s, Parkinson’s and Huntington’s Disease). Estimated to affect 800,000 people in the UK (NHS, 2014), this condition “is often incorrectly referred to as ‘senility’ or ‘senile dementia’, which reflects the formerly widespread but incorrect belief that serious mental decline is a normal part of ageing” (Alzheimer’s Association, 2014). However, slower information processing from the accumulation of experience and reminiscence recall (Baddeley, 1994), whilst not a serious mental decline, is a change in cognitive function affected by age.

These age-related changes in information processing may also be, in part, responsible for changes in learning performance (a particularly relevant issue to vision rehabilitation). As described by Baltes *et al* (2005), the older person’s ability to learn will “depend on task types, demands, and processes involved” (p.62). Interestingly, “hands-on training...[has been]...found to be superior, especially for older adults” (Charness and Czaja, 2005, p.665), which would suggest that the use of appropriate learning activities that take into account changes in information processing, may counter how it affects learning in older people. Therefore, whilst it must be acknowledged that there is a cognitive change in processing

linked to the onset of age, care must be taken to understand that this is not (without formal clinical diagnosis) a serious mental decline, disability or illness, but a functional issue.

Discussing the changes in cognitive processing and learning styles aims to offer a positive interpretation of the ageing process. However, whilst it is clear that the effects of these changes are likely to impact upon psychological wellbeing, the resilience thinking of older people can offer an effective challenge. In addition to an individual's resilience, psychological wellbeing is also influenced by the extent to which we are able to engage in social interaction.

The social positioning of an older person is extremely complex. Abrams *et al*'s (2009) research into attitudes towards age in Britain reports that older people are "stereotyped as friendlier, more admirable and more moral than younger people" (p.3). However, this positive picture has a darker side: Abrams *et al*, go on to describe a society that pities older people whilst also viewing them as an economic drain on resources. Whether an older person is viewed benevolently or as a societal millstone, the emotional experiences of interactions with family, friends and others will ultimately impact on an individual's wellbeing. As families become more fragmented and ageing friends pass away, it is perhaps not surprising that as many as 33% of people aged 65 and over experience periods of loneliness, a figure that climbs to almost 50% of those over 80 years of age (Age UK, 2011). Amongst the causes of isolation and loneliness are the loss of loved ones and friends, poor physical health and moves into residential care (Age UK, 2011). With "loneliness and isolation...[being]...risk factors for depression" (Fiske and Jones, 2005, p. 248), it is surprising that the RNIB's (2012b, p.10) estimate that 35% of older people (60 and over) "are living with sight loss experience depression" (RNIB, 2012b, p.10) is not even higher.

The health of an older visually impaired person's social world is influenced by many factors, including their personal resilience and the closeness and range of their relationships with children, partners, friends and acquaintances. With so many influencing factors it is wise to reject assumptions and focus on the individual's needs (as in the approach adopted for the biological and psychological issues above). However, with the population of older people predicted to increase, it is important that our society and social care system recognise and challenge the causes of loneliness and isolation and the effect this can have on the health and wellbeing of this sector of society.

This biopsychosocial impact of age incorporates physical, cognitive and social decline, compounded by the effects of lifestyle choices, disability, disease and illness. These domains have been discussed above as independent entities; however, physical wellbeing, social wellbeing and psychological wellbeing in older people are closely linked. For example, reduced mobility resulting from a loss of strength and stamina will obviously impact upon the older person's ability to maintain social relationships. In addition, this experience of a reduction in social interaction can impact upon psychological wellbeing, resulting in low self-esteem, loneliness and depression.

It has become clear from the literature reviewed above that whilst older people experience a great deal of change as they advance in age, their resilience empowers them to rationalise and cope with that change. In the case of older visually impaired people, however, the combined complexity of biopsychosocial ageing and the biopsychosocial implications of a visual impairment calls for this sector of society's needs to be considered a high priority.

## **The implications of visual impairment**

There are many biological, psychological and social factors relevant to understanding the impact of a visual impairment (Dodds, 1993). The impact a physical acquired loss or congenital lack of vision can have on an individual is probably best summed up by combining the International Classification of Functioning's (ICF) disability and health definition of an impairment as being "problems in body function or structure such as a significant deviation or loss" (WHO, 2002, p.10) with Oliver's description of his social model of disability:

...disability...is all the things that impose restriction on disabled people; ranging from individual prejudice to institutional discrimination, from inaccessible public buildings to unusable transport systems, from segregated education to excluding work arrangements. (Oliver, 1996, p.33)

This combined holistic perspective of "an integrated biopsychosocial model of human functioning and disability" (WHO, 2002, p.19) offers a broad viewpoint on the associated impact a visual impairment can have on every aspect of life. On a more individualistic level this impact can manifest as practical difficulty with communicating (reading, use of IT etc.), "shopping, cooking, feeding, dressing, house-work" (Dodds, 1993), personal health and care, accessing employment, education, leisure interests, maintaining social relationships and travel. It is important to note that the term 'impact', as used in the discussion above, is somewhat controversial when used in this context. From Oliver's (1996) social model perspective, the social barriers experienced by a visually impaired person are not the impact of a visual impairment but rather the impact of society's response to that visual impairment. This is just one example of the conflict between the individual model focus (which can be seen in Dodds' suggestions above) of rehabilitation and the social model perspective which will be discussed in more detail in the rehabilitation and disability section in this chapter.

## **Rehabilitation and social care**

The community-based services that aim to challenge these issues are generally provided through the statutory social care system, either via local social services or local or national charities, delivering services on behalf of the council social services department. These services, based on legislation including the Chronically Sick and Disabled Persons Act (1970), the NHS and Community Care Act (1990) and the National Assistance Act (1948), offer needs assessments, practical assistance and care services (Mandelstam, 2005).

However, at a time of austerity and social care reform, the position of vision rehabilitation as a restorative intervention within the health and social care system is unclear. Personal Independence Payments and the Welfare Reform Act (2012), described by Osborne as designed to “cover the added costs faced by disabled people” (2013), suggest a perspective in which financial support negates the need for social services to provide interventions directly to disabled people. This type of reform not only changes the services provided but also influences the type of worker employed within social services. Described by Samuel (2011) as a decision maker, assessment and resource allocator, budget reviewer, support planner, broker and reviewer, this social care professional clearly focusses on administration at the expense of therapeutic intervention. Warning that this situation presents a challenge to the position of the rehabilitation worker, Pearce (2011) calls for the maintenance of local authority services, arguing:

...rehabilitation should be an absolute right for anyone with significant sight loss presenting themselves as having needs... What is it about this simple process that local authorities do not understand? And why is the sight loss sector not jumping up and down in protest? We all know that rehabilitation is a core requirement for people who lose their sight and so it should be ring fenced and fiercely defended by us all... (Pearce, 2011)

In what could be seen as a response to the questioning of Pearce, the UK Vision Strategy (2013) has recently championed the role of the rehabilitation worker to remain integral to the statutory services sector. Positioning vision rehabilitation as a ‘reablement’ strategy – a term linked through literary parentage to rehabilitation (Pavey, 2011) – to be offered to visually impaired people before they receive the assessment that could trigger the financial support of a personal budget, the UK Vision Strategy suggests this service is one the social care system is directly responsible for. The sweeping restructuring and cuts to services in the UK is in progress and only time will tell if this service is secure. Meanwhile, if vision rehabilitation services are to be maintained, it is now more important than ever for the value of these services to be understood.

In the absence of empirical evidence, the mainly anecdotal raging debate of the late 1990s around the value, modernisation and generalisation of rehabilitation within the social care agenda (Franks, 2000) offers an opportunity to reveal the points of this debate that are still relevant today. Smith’s BJVI editorial (1996) was deliberately provocative, opinionated and rather disparaging for professionals and visually impaired people. Although now dated, it teases out some important elements of this debate, which can still be heard in Pearce’s (2011) speech, cited above. On the surface these issues may appear simplistic in nature; nevertheless, Smith’s discussion, although not based on empirical research, does demonstrate the central core of the dispute and how rehabilitative intervention is commonly misunderstood.

Supporting the argument for the provision of financial support in place of therapeutic intervention, Smith (1996) suggests that a perceived reluctance of visually impaired people to register as partially sighted/sight impaired or blind/severely sight impaired can be challenged by the re-education of rehabilitation workers and the provision of a number of free services.

As mentioned earlier, one area of support offered by rehabilitation workers is that of communication skills training. Smith (1996) suggests that a more relevant and appropriate substitute for this type of rehabilitative intervention would be a “free...perhaps means-tested – telephone service” (p.89). There is no doubt that this type of service would be an advantage for those who are receiving a retirement income or who are supported by a benefit system. However, what appears to be missing from this assumption is a consideration of how a person who is unable to see to use the dial or keypad of a telephone or is unable to record telephone numbers (Ponchillia and Ponchillia, 1996) will be able to access this ‘free service’. Coming four years after the comments of Smith, Franks’ ‘Birmingham Study’ (2000) sheds further light on this element of the debate. With 300 (93.33%) of the 330 specialist workers who took part in her study stating that teaching using the telephone was one of the three most commonly undertaken rehabilitative communication activities within their role – the other two being tape recorders and handwriting frames – it would appear that there is some indication of a need for this service.

It is important to note that in addition to communication skills training, rehabilitative invention is designed to address a range of activities and experiences associated with living with a visual impairment. These are commonly categorised into the roles of assessment; information provision (advocacy and general support tasks); independent living skills; use of low vision enhancement; housing, transport, holiday and respite care; orientation and mobility; and counselling (Franks, 2000; Villeneuve-Smith, 2002; ADSS, 2002). Although now 13 years old, Franks’ (2000) appeal for the formation of “a sound research base upon which practice may reliably rest and thereby be enabled to move forward with confidence into the twenty-first century” (p.213) is vital to secure professional intervention for visually impaired people. Unfortunately, with a notable lack of current large-scale research into this



wide range of rehabilitation interventions, there is a limited basis upon which the “widespread misunderstanding about the nature of rehabilitation” (Pearce, 2011) can be challenged.

### **Rehabilitation and disability**

Functioning within statutory and voluntary sectors that promote a social model perspective of disability, it is somewhat likely that the widespread misunderstanding that surrounds vision rehabilitation is in part due to a conflict between disability and rehabilitative intervention.

The relationship between disability (such as visual impairment) and rehabilitation has been a topic of debate for some years amongst protagonists such as Oliver (1996), Shakespeare and Watson (2002) and Whalley Hammell (2006). Despite the academic interest it would appear – as rather cynically suggested by Whalley Hammell (2006) – that this debate has “been virtually unnoticed by those professions...[such as rehabilitation workers]...that rely upon the presence of disability in society” (p.ix). The complexity of this debate is not the intended focus of this thesis; however, to understand how rehabilitative intervention can meet the holistic needs of visually impaired people it is important to consider the dichotomy that exists between rehabilitation and disability.

The defining attributes of rehabilitation as described by Davis (2006) are process; restoration; effectiveness; enabling and facilitating; learning and teaching; and autonomy. This ‘person-centred’ attention to the circumstances of the individual offers restorative interventions that enable them to function effectively within a society. Therefore, it could be assumed that by enabling an individual to cope within a disabling world, the professional is not sensitive to the challenges of a disabling society. As argued by Whalley Hammell (2006), the social model perspective of disability is of value for the disabled activist and academic to “contest ... the assumption that the problems faced by disabled people are a direct consequence of their

impairments” (p.67). This theoretical value of the social model would suggest that its relevance to the professions that deliver individualised services, in particular rehabilitation practice, is embedded in the ideology of the professions.

The rehabilitation worker has a number of opportunities to challenge the barriers presented by a disabling society. The 85 specific job roles identified by Franks (2000) could be separated into two distinct categories: person-centred roles (such as training for the development of restorative function) and societal activities (such as “building Access/built environment issues” (p.131)). It could be argued that whilst the rehabilitation worker may quite easily rationalise their effectiveness in challenging a disabling society by their involvement in the societal activities of their role, the justification of client-focussed practice within the social model of disability may be more complex.

Rehabilitation is traditionally focussed on addressing the impairment of an individual and offering adaptation, which in many cases cements their allegiance with a medical model perspective of disability. Although the existence of a medical model is disputed by Oliver (1996) – whose preference is for an ‘individual model of disability’ – this model is described by Whalley Hammell (2006) as one in which “individuals [are] deemed deviant from the norm and the problems that they face, as individuals, in their daily lives [are] as a result of their deviant characteristics” (p.59). This link to a medical model is particularly interesting given that in the case of vision rehabilitation, many workers are employed within the statutory (social services) or voluntary (charities) social care sector (Franks, 2000); a sector that aims to challenge oppression and discrimination and has adopted the social model of disability as a feature of its underpinning philosophy (Payne, 2005). It would appear on the surface that a strict division of working activities into person-centred and societal activities as suggested

earlier, would offer an opportunity for the conflicting ideologies of social and medical models to coexist within the function of rehabilitative intervention in the social care environment. It may be the case that the social and medical models of disability are selectively applied in rehabilitation, which is not surprising when the reality of meeting the needs of a visually impaired person is unlikely to fit easily into a simple division of theoretical models. A more realistic approach would be to develop a vision rehabilitation ideology that conceptualises social and medical theoretical models at the heart of practice and training. Unfortunately, other than anecdotal evidence, there is little to suggest that the realisation of opposing practice models has been incorporated into either vision rehabilitative theory or practice.

As argued by Oliver (1996), the challenge is for workers within rehabilitation to fully appreciate the power that exists in their relationship with their clients and to realise the social model ideology within their practice. They should not just assume that the client-centred elements of their work negate their responsibility to accept that the world is disabling, but “be [holistically] engaged in preparing people to resist enforced marginality and to challenge the distribution of opportunities that are justified by normative, dualistic thinking” (Whalley Hammell, 2006, p.49). By taking an active role in skill development and “changing the social environment in order to improve health and functional ability” (Gottwald, 2006, p.133), the rehabilitation worker’s practice can embrace the ideology of a social model of disability without neglecting their commitment to the person-centred, therapeutic medical model applications of practice.

Although, as argued by Shakespeare and Watson (2002), the use of the social model of disability may have hindered the development of civil rights in the UK in respect of the disabled persons fight for equality, Oliver’s (1990) call for the ‘disability’ to be adopted as a

political statement has been appreciated in this thesis. To offer the author's support of the multifaceted political value of 'disability' the 'disabled' descriptor 'visually impaired' has been used throughout as a precursor and therefore defining feature of the 'person'.

This social and medical model debate should not only permeate the rehabilitation worker's role but also their training. However, as this predominantly theoretical debate has progressed, the "folklore surrounding" training and "technical rehabilitation interventions" (Franks, 2000, p.208) that has existed is likely to have resisted the contesting of vision rehabilitation interventions in favour of what Whalley Hammell (2006), commenting on the wider field of rehabilitation, describes as "taken-for-granted ways of thinking" (2006, p.3). Although Franks (2000) laments an adherence to what she calls "folklore", in the absence of empirical evidence, there has been little choice for training providers but to remain consistent.

### **Rehabilitation worker training**

Perhaps the most comprehensive chronicle of the evolution of the visual impairment rehabilitation profession in the UK is that offered in Franks' (2000) unpublished thesis 'A Study of Practitioners' perspectives on Rehabilitation Work with Blind and Partially Sighted People in the U.K.' (Pavey, 2011). Negotiating the twists and turns of professional and academic development, Franks uncovers a history of uncertainty over the value of rehabilitative interventions that has dogged the development of professions providing therapeutic intervention services to visually impaired people for over 50 years.

Franks' review exposes confusion about the role of the professional providing services to visually impaired people, an issue that appears to be currently unresolved (Pavey, 2011). In the 1960s a change to the professional title heralded a change in ideology, from the educational perspective of the home teacher to a more social care/local authority orientated

title of officer (social welfare, technical, mobility or rehabilitation). As discussed earlier, some 50 years on the rehabilitation officer/worker is finding they are still at the centre of the generic worker debate. As the home teacher moved away from teaching towards a more social work orientation, the rehabilitation worker's role is being challenged to again move away from the specialism of teaching to a more generic social care worker role (*ibid*).

Although the rehabilitation worker's role is currently undefined, many elements of their training focus on the therapeutic intervention of 'teaching' a skill designed to counter the impact of a visual impairment. One such set of skills that is considered a specialism of the profession, and core to their training, is O&M training for visually impaired people. A rationale for the maintenance of this specialism can be found in the research of Franks (2000) which shows that 93% of rehabilitation workers deliver O&M training in their practice. Interestingly, the content of rehabilitation workers' prevocational training programmes appears to be remarkably similar – evidence of this will be discussed later – and it is important to note that this similarity not only traverses training providers but also decades, with many of the techniques identical to the descriptions contained in the original key text of the subject.

The source of this consistency is unmistakably the rehabilitation worker training providers. Two of the major training programmes for rehabilitation workers in recent times were the Birmingham University Dip HE in Rehabilitation Studies 1995–2005, delivered by Guide Dogs for the Blind, and the University of Central England (UCE) (latterly BCU) Dip HE Rehabilitation Work (visual impairment) 2007/08 supported by the RNIB. Both of these courses share a loyalty to the classical techniques of O&M, demonstrated in their core reference texts, which include the North American publications of Hill and Ponder (1976),

Blasch, Wiener and Welsh (1997) and Jacobson (1993) (Hook, personal communication, e-mail to author, 7/8/2008; Guide Dogs for the Blind Association, 1995), all of which promote and describe techniques based on those originally developed in 1950s USA for war blinded veterans.

As discussed earlier, the rehabilitation worker's predominant client group is older people. The author's experience suggests that these clients possess characteristics that contrast with those for whom the classical O&M techniques were developed. The set and recommended reading lists of BCU/UCE and Guide Dogs include texts on learning theory, audiology and working with children but none that deliver theory or practice in working with older people, the predominant client group of the rehabilitation worker. One publication that is available to the student rehabilitation worker that goes some way to addressing this lack of focus is the Crews and Clark chapter entitled 'Orientation and Mobility for the Older Person' in 'The Foundations of Orientation and Mobility' (Weiner *et al*, 2010; Blasch *et al*, 1997). This publication is arguably the most influential in the field of O&M and although the most recent edition suggests that in the USA there is "clear evidence of the value of providing O&M instruction to older adults with vision loss" (Griffin-Shirley and Welsh, 2010, p. 303), the earlier observations of Crews and Clark (1997) that "very little rigorous research has addressed travel habits among older people who are visually impaired" (p.446) may still ring true in the UK. Unfortunately, even though the perspectives presented in this publication are of interest, they can appear vague to the rehabilitation worker student and may not be considered fully relevant to their training. The lack of practice-relevant literature could result in a rehabilitation worker with skills that do not meet the needs of their clients, a predicament clearly expressed by a participant of the 'Birmingham Study' who states "...I am frustrated

that so much of my work is with the elderly partially sighted, there is so little I can do at times except issue talking clocks etc.” (Franks, 2000, p.178).

With limited evidence of the value and effectiveness of rehabilitative techniques, it is perhaps not surprising that rehabilitation studies training providers are reluctant to challenge the “folklore” (Franks, 2000) of the classical techniques of rehabilitative intervention. This perspective could also influence the practising rehabilitation worker’s performance, creating a resistance to depart from or adapt their training because of adherence to tradition and the assumption that the techniques they learnt are both relevant and fit for purpose. It would appear that this has occurred despite the warnings of Neustadt-Noy and LaGrow (1997) who unintentionally question the global suitability of these techniques in their observation that “...Orientation and Mobility instructors in Europe appear to be remarkably similar to one another and not all that different from the Americans who influenced them” (p.628). They go on to describe the dissemination of O&M across the globe commenting that this practice outside of the USA is unchanged “despite differences in political and educational systems, language, population density, and manmade environments”. They conclude, however, that the profession is evolving “to meet the myriad needs of the people of the world” (p.641).

The observations of Neustadt-Noy and LaGrow along with those of Franks appear to have had little impact upon the UK educators of rehabilitation workers who apparently focus on the classical, “practical aspects of long cane mobility training with theoretical input mainly concentrated on immediately related topics such as mobility theory” (James, 1996, p.91). Any relation to the real world of O&M appears to be cursory and uninspired with only “one or two occasions [when] it was suggested that the cane grip might need adjusting for an older person” (*ibid*).

## **Summary of literature pertaining to visual impairment and rehabilitation**

A range of estimates have been made in the literature reviewed so far regarding the current and future population of visually impaired people. Although these predictions vary, it is commonly accepted that the percentage of the population termed as older people is increasing. Therefore, with the major cause of visual impairment in the UK being age-related macular degeneration, this sector of society is likely to be rehabilitation workers' predominant client group and consideration needs to be given to the types and quality of services offered to them.

It would appear that vision rehabilitative strategies have remained consistent for many years. Although this consistency may be commended, the lack of empirical evidence upon which the profession has evolved must be lamented. With little literature validating the suitability of rehabilitative strategies for visually impaired people, it is not surprising that at a time of change within the social care system there is concern that a lack of understanding will result in the devaluing of this type of therapeutic intervention.

At the present time the training of rehabilitation workers is facing a developmental challenge, with the publication of the National Occupational Standards for Sensory Services (Skills for Care and Development, 2008) and the changes in training bodies and higher education programmes from Diplomas to Foundation Degrees and Bachelor of Science Degree programmes. As these changes are already in progress, there is no better time than the present to explore the practice of the rehabilitation worker and offer the field evidence of their services that are relevant to the population and bridge the gap between theory and practice.

## **O&M STRATEGIES AND TECHNIQUES FOR VISUALLY IMPAIRED PEOPLE**

It is commonly suggested that the ability to move and travel is integral to all activities and essential for an individual's wellbeing and development (Blasch *et al*, 1997). However, for



those people experiencing a visual impairment, moving around their environment and travelling further afield undoubtedly exposes them to a risk of physical injury from collision with obstacles and falls (Nazroo and Gjonca, 2005). In addition the “social isolation and lack of human contact” that can occur as a result of not being able to travel has been highlighted as presenting “major problems for people with sight loss” (Hanson *et al*, 2002, p.1). This “loss of the power to move about freely and safely” (Koestler, 2004, p.336) permeates the findings of Pavey, Dodgson *et al* (2009) and Pavey, Douglas *et al* (2009) who suggest that for older visually impaired people with a hearing loss the ability to be mobile is fundamental for successful social, communication and daily living activities.

Within the field of visual impairment rehabilitation, the term orientation and mobility describes the range of skills and training required for a person to travel safely and effectively without sight. Individually, orientation describes the use of the senses (auditory, gustatory, kinaesthetic, olfactory, tactile and visual) to understand the spatial relationship between a person and their environment (Long and Giudice, 2010; Jacobson, 2008; Hill and Ponder, 1976). Commonly this is where they are, where they have been and where they want to go. Mobility on the other hand encapsulates the capacity, willingness and ability to physically move; this includes a range of techniques, systems and equipment (including the white cane and sonic aids) which can be employed to improve the safety and effectiveness of movement without sight (Farmer and Smith, 1997; Jacobson, 2008; Dodds, 1988; Hill and Ponder, 1976).

The value of these techniques for improving the safety and effectiveness of movement without sight can also offer a challenge to the key barriers presented by a visual impairment. In addition to the loss of sight, three main barriers to travel for visually impaired people from

across the age spectrum (working age to retirement age) were identified by Pavey, Dodgson *et al* (2009): poor health, mobility and confidence. Although there appears to be very limited empirical research into the value and use of the O&M techniques that challenge the implications a sight loss has on movement and travel, it has long been recognised by professionals working with visually impaired people that these rehabilitative techniques not only provide travel know-how but also promote physical wellbeing and support the development of an individual's self-esteem and confidence (Ponchillia and Ponchillia, 1996; Weiner *et al*, 2010, Miyagawa, 1999).

This value of O&M training appears to have been missed in the scathing critique by Smith (1996) discussed earlier, who includes O&M training as an example of the limited value of the training offered by rehabilitation workers. Suggesting that rehabilitation professionals are aloof and out of touch, he calls for another “subsidised or free – perhaps means-tested...Service” (p.88) to provide taxis in lieu of O&M training. Whilst recognising this argument is dated, the clarity of its focus offers an opportunity to challenge the lack of understanding that still exists described above. Smith's rationale for this free service and subsequent lack of need for O&M training is based upon an assumption that it would benefit everyone whereas long cane training or guide dog ownership are required by the few. What Smith clearly fails to consider is not only the choice and motivations of a person to travel but also their relevant needs.

A lack of referencing in Smith's article suggests it is opinion based and probably intended to be controversial. Nevertheless, at the time of writing he would undoubtedly have had access to the Ministry of Health's inquiry ‘Mobility and Reading Habits of the Blind’ (1965). In this complex and rather unwieldy research by Gray and Todd (1967), he would have found that

for 48% of their survey participants age 16 to 64 all of their journeys were made on foot, a percentage rising to 62% in those aged from 65 to 79 (p.32). Although it is unclear whether visually impaired people travel on foot by choice or by necessity, these findings could indicate a need for accessible transport and support Smith's call. Alternatively, if this form of travel was a preference to a person with a visual impairment, these findings could suggest that access to O&M training was a requirement, thus disputing Smith's claims. Either way there is enough doubt to question the proposal that a free taxi service would be a solution. Like sighted people, this proposal could be seen as an affront to those visually impaired people who perceive choice and independent travel as natural as breathing (Thornton, 1968).

In addition, whilst acknowledging vehicular transport can avoid unnecessary hardship or exposure to injury for a traveller (both of which could be addressed with O&M training), it is important to note the limitations of an argument for a taxi service. This form of transport merely picks up and delivers a traveller; it does not address the finer points of negotiating the route from the house to the taxi and from the taxi to the final destination. Nor indeed, if the latter location is employment, which according to Smith rates high on the list of needs for visually impaired people, this form of free transport will not enable an employee to travel within the office environment equal to their peers.

It may be argued that the relevance of Gray and Todd's research (1967) to the modes of transport used by visually impaired people in the late 1990s is questionable. However, comparing their findings to those of Pavey, Dodgson *et al* (2009) that show of the 394 participants of the Network 1000 study who mentioned travel, transport and mobility, some 219 (56%) talked about mobility on foot, the importance of this mode of travel to visually

impaired people (regardless of whether this includes public or private transport) appears to be remarkably unchanged.

Equally, what seems obvious to travellers without sight such as Thornton (1968) and Miyagawa (1999), evidenced in the key text ‘The Foundations of Orientation and Mobility’ (Blasch *et al*, 1997; Wiener *et al*, 2010) and supported by the empirical evidence of Gray and Todd (1967), is the understanding and philosophy behind O&M training. This true value of rehabilitative intervention is suggested by Miyagawa who, describing the beginning of O&M in the USA, reports:

...a social worker remarked that blinded soldiers recently wounded as a result of vicious combat were a shattered group of men, both physically and psychologically. Hoover [the originator of foot travel training] felt that they simply need to be taught how to get about...[He] felt that by teaching them to get about and be on their own two feet as they had when they were sighted...emotional healing [would] take...place with time, particularly when one has regained confidence, independence, and self-esteem. (p.107-108)

These values, known to rehabilitation workers, appear to have been overlooked by Smith (1996) in his surmise “what good is independent mobility to a blind teenage girl who is terrified of the inner city” (p.88).

Research such as ‘Network 1000’ (N1000) (Douglas *et al*, 2006) – which according to Charles (2011) is “the most well-designed survey of visually impaired people in the UK” (p.16) – and ‘Functionality and Needs of Blind and Partially Sighted Adults in the UK’ (FNBPS) (Pey *et al*, 2007) have investigated in detail the consequential effects and socioeconomic impact of experiencing a visual impairment in the UK. Although not entirely focussed on older people or O&M, both the studies present data intended to offer insight into the trends, abilities and needs of this client group. Both studies equally solicited substantial numbers of participants; however, the samples contrast dramatically in their demographic

range. It is important to note that this disability is not solely a characteristic of old age and although the population of older people is increasing in number there are estimated to be 25,000 children with a visual impairment in the UK (RNIB, 2012b). In this respect the N1000 survey excelled in the diversity of its participant sample, achieving a relatively even age range of participants between 18 and over 75, whereas the FNBPS reported from a predominantly older sample with an average age of 62.4 years. Justification of the relevance of their participant population was provided by the FNBPS authors who describe in their introduction that 90% of blind and partially sighted people are over the age of 50. This figure is similar to statistics published by the Information Centre (2006): as of March 2006, 87% of people registered blind and partially sighted in the UK are over 50 years of age, suggesting that the age of 62.4 years in the FNBPS participant sample should accurately represent the predominant UK population of people with a vision impairment. Interestingly, although the samples varied, both of these studies acknowledge some similar restrictions that a vision impairment can have on independent travel; this becomes particularly revealing when the findings are compared with the travel trends of the general population.

When investigating perspectives of independent mobility, Douglas *et al* (2006) reported that 43% of visually impaired people would like to leave their home more often. A figure mirrored by the RNIB who estimate that 44% of “blind and partially sighted people report that they feel ‘moderately’ or ‘completely’ cut off from people and things around them” (RNIB, 2012b, p.10). Similarly Pey *et al* (2007) reported that 48% of their participants had some difficulty going out by themselves. Interestingly, these findings are very similar to the travel difficulties experienced by some sectors of the general population. The Department for Transport (DfT) (2008) found that 39% of people over 70 had problems walking or using public transport. Although it is not possible to identify how many of the older participants of the DfT survey

had disabilities, these findings may suggest that the resulting implications of age in some cases may be similar to the impact of a visual impairment. This is highlighted further by the findings by the DfT who report that only 4% of young people and adults (16 to 49) experienced these problems with travel. When considering younger people, it is perhaps unsurprisingly that the key barrier to travel for a person with a visual impairment is the biopsychosocial impact of a vision impairment (Douglas *et al*, 2006) (see biopsychosocial as a descriptor of the holistic implications of an impairment and disability, discussed earlier). However, the traumatic impact a visual impairment has on older people may be such that for some people it masks other biopsychosocial issues such as those associated with the ageing process.

In some ways this issue was made clear by Pavey, Douglas *et al* (2009); they describe the barriers to travel for older visually impaired people who have an additional hearing loss as “personal/health ... (e.g. energy, difficulty walking, and fear of falling)” and “fear of crime” (p.117), all of which created feelings of being unable to go out alone or unaccompanied (Douglas, 2006).

Recent evidence suggests that “dependence, loss of control...fear of the future” (Pavey, Dodgson *et al*, 2009, p.1) and, in particular, “isolation is a...high risk for blind and partially sighted older people” (RNIB, 2012b, p.12). One of the limitations of this claim is that there is also evidence that suggests isolation is common amongst the general older population (Age UK, 2010, 2013b). From a travel perspective the combined message these propositions indicate is that the motivation and ability to travel, offering opportunity to relieve isolation, may not only be influenced by the experience of a visual impairment but also the general effects of the ageing process. This proposition appears to be supported by Pey *et al* (2007)

who found that the main reason for travel across the whole age range of people with a vision impairment is to go to the shops, an activity which increases in incidence with age. This finding is also directly applicable to the general public with National Statistics showing that:

Shopping and other personal business are the most common reasons for travel by older people. During 2002, 43 percent of trips made by those aged 50 to 59 were to go shopping, to conduct other personal business or to escort somebody else. This increased to 55 percent for people aged 60 to 69 and to 64 percent for people aged 70 and over. (ONS, 2004, p.8)

This activity appears to increase in prevalence across the general population of older people, and although recognised as a motivator to travel, is not necessarily unique to the population of older people with a vision impairment. Douglas *et al* (2006) on the other hand, provide a focus on the factors that may occur as a result of a visual impairment. Whilst also uncovering that younger visually impaired people do not visit the shops as often as older visually impaired people, they reported that a lack of confidence was responsible for impeding independent travel in people of working age. This reduced level of confidence may also be evident in Pey *et al*'s (2007) proposed rationale that “differences in the actual experience of ‘shopping’ between agegroups [sic] with younger people perhaps being required to make more frequent and complex shopping excursions” (p.55).

It would appear from the literature reviewed thus far that the underlying effects of a visual impairment – “fear or lack of confidence” (Pey *et al*, 2007, p.70) – are the most common inhibitors to independent travel across the age range; additional inhibitors were traffic/road conditions and parked cars, medical conditions, unexpected obstacles and overhanging branches (*ibid*, p.70). In addition, as it is commonly accepted that older people experience physical and cognitive decline with advancing age and the social and physiological need for them to travel is reduced, the impact of the ageing process rises in priority when considering the rehabilitative needs of this particular sector of society. However, it is unclear whether the

rehabilitative interventions of O&M training offered by the rehabilitation worker are relevant to and challenge the issues experienced by older visually impaired people.

### **The long white cane two-point touch technique**

The travel techniques used by visually impaired people are eclectic in their range, constituent elements and origins. Therefore, it is crucial for an understanding of the studies and participant responses presented in this thesis that a definitive account of the technique most well-known within the rehabilitation worker profession is offered to the reader.

In what is generally regarded to be the seminal text in O&M techniques, Hill and Ponder (1976) (Jacobson, 2008; Wiener *et al*, 2010) describe the range of techniques that can be used to promote safe travel without sight as orientation, sighted guide, self-protection, cane skills (diagonal and touch technique), outdoor unit/residential and outdoor unit/commercial. The development and origins of many of these techniques is ambiguous, with anecdotal accounts ranging across centuries and continents (Franks, 2000; Pavey, 2011; Bledsoe, 1997, 2010; Dodds, 1996). In contrast, the one technique that has an undisputed traceable origin is that of the two-point touch long white cane Technique (also documented as touch technique).

Described by Thornton (1968) as more “superior to any other method...[he]...had experienced of helping blind people get about alone” (p.204); this form of travel is considered a specialism of the rehabilitation worker. There is some variation but as Penrod (2012) reports, in general professionals are in agreement that there are seven distinct but interrelated components required for two-point touch long cane technique. Based on the key texts by Hill and Ponder (1976), Jacobson (2008) and Penrod (2012), these seven elements are described as:



**Position of the cane**

When holding the long cane the arms should be relaxed with the grip of the cane held at waist height or above with the cane held in the centre of the palm. Arms relaxed but slightly bent at the elbow (Hill and Ponder, 1976; Jacobson, 2008).

**The index finger**

The fore/index finger is positioned to extend along the flat edge of the long cane grip, pointing towards the tip when placed on the ground. The remaining fingers cup under the grip with the thumb hooked over the top of the grip (Penrod, 2012; Jacobson, 2008; Hill and Ponder, 1976).

**Wrist action**

The cane is positioned at the cardinal mid-sagittal plane (body midline) of the body and held forward of the body. Using flexion, extension and hyperextension the wrist is flexed to move the cane from left to right (Penrod, 2012; Hill and Ponder, 1976)

**Arc height**

As the cane tip is moved from side to side (left to right) at the apex of the arc the tip should be 1 inch (Hill and Ponder, 1976); no more than 1.5 inches (Penrod, 2012); or 1.5 to 2 inches (Jacobson, 2008) off the ground.

**Arc width**

The tip of the cane should touch the ground on either side of the traveller, either slightly beyond (Jacobson, 2008) or at a distance of approximately 1 inch (Penrod, 2012; Hill and Ponder, 1976) beyond the widest part of the cane user.

**Rhythm**

The tip of the cane touches the ground ahead of the traveller in time with the heel strike (Penrod, 2012; Jacobson, 2008; Hill and Ponder, 1976).

## **Step**

As the cane touches the ground on the left, the right heel lands and as the cane touches the ground on the right, the left heel lands (Penrod, 2012; Hill and Ponder, 1976).

The prescriptive nature of these techniques, clear in the above descriptions, can be seen in reports spanning the last 45 years from Thornton (1968) to Penrod (2012). As the techniques and the majority of publications in which they are documented originate in the USA, this preoccupation with the accuracy of achievement may be based on well-established evidence that the techniques meet the needs of North American residents with a visual impairment and the environment in which they travel. With the initial literature search suggesting there is no reliable evidence offering deviation in the form of adaptations to suit specific client groups such as older people, the suitability of this technique to UK travellers with a visual impairment is questionable. For rehabilitation workers needing to adapt the techniques, the difference between theory and practice, as identified in the research of Zebehazy *et al* (2005), lies in developing the ‘situational focus’ of the expert practitioner (Dreyfus and Dreyfus, 2005). This enables the professional to consider what might happen if errors are uncorrected, as opposed to the novice worker who focusses on deviance from the textbook technique. In reality the strict adherence to theory promoted by key texts has a potential to generate reluctance to make the adaptation required to challenge the biopsychosocial implications of age and visual impairment that permeate the predominant client group of the rehabilitation worker.

## **The Introduction of two-point touch long white cane technique into the UK**

The long white cane mobility technique two-point touch (described above) used in the UK today was initially formalised as ‘Foot travel’ skills at the Valley Forge Army Hospital, USA

at the end of the Second World War. These techniques were later refined at the Hines Veterans Administration Medical Center Chicago (VAMC) during the 1950s where the discipline was christened O&M (Franks, 2000; Thornton, 1968; Wiener and Siffermann, 1997). It was at the Hines VAMC, through their work with war-blinded veterans, that the hoover technique emerged. This method (commonly known in the UK as the two-point touch technique) of using a long white cane to touch and scan the path in front of the traveller was designed to enable a traveller with a visual impairment to detect and negotiate obstacles and features of the environment directly ahead.

Forming the core of O&M instructor training and heralded by Thornton (1968), the introduction of the two-point touch technique into the UK gained the support of St Dunstan's, one of the country's major charities for blinded armed service personnel (now known as Blind Veterans UK). St Dunstan's funded Walter Thornton's visit to the Hines VAMC and Western Michigan University in 1964 (Thornton, 1968; Dodds, 1996) and in conjunction with Dr. Alfred Leonard he was instrumental in introducing the American training methods (Blasch *et al*, 1997) into the UK. Formal O&M instructor training programmes headed by American instructor Stanley Suterko soon followed (Dodds and Howarth, 1995). These training programmes produced "a new worker trained specifically to teach Orientation and Mobility" (Franks, 2000, p.36) and resulted in the formalising of the O&M instructor qualification and professional working title, an event that was influential in the evolution of home teacher training into the two qualifications of O&M instructor and technical officer.

The eagerness with which these techniques were accepted into the UK is not surprising. Walter Thornton had been serving in the armed forces when he lost his sight and like many of St Dunstan's patrons shared attributes similar to those of the war-blinded ex-service personnel

for whom the techniques were developed. This suitability also appears to have fostered the assumption that the techniques were applicable to the wider general population of visually impaired people. An assumption that, although not without its critics, was one that Thornton (1968) felt was obvious, avowing “in the long run experience of the new technique will speak for itself, and will finally win the day” (p.213).

This notion of suitability was also supported by Gray and Todd (1967) who present the fact that it was newly introduced to the UK as rationale for the lack of use of the long cane.

Although very few people had received long cane training at the time of Gray and Todd’s research, they were able to reveal that small numbers (15% of those aged between 16 and 64 and 11% of those in the 65 to 79 age range) had received O&M training via either the RNIB or a home teacher. The key problem with their argument is that regardless of a clear lack of evidence, the authors adopt a similar stance to Thornton and actively promote the usefulness of the technique. Arguing that the participants of their research had stated that “the most important function of their stick is to detect obstacles” and as the American technique would enable them to do this more effectively, then surely they would be “favourably disposed” to learning the “simple” technique (Gray and Todd, 1967, p.63-64).

In contrast to the assumptions of Gray and Todd, Dodds (1996) raises doubts over the effectiveness of O&M instructor’s suggesting there is “little or no measurable improvement in the number of independent journeys undertaken each week by blind people [who had received long cane training]” (p.91). These doubts were instrumental in the development of the more versatile rehabilitation worker, a professional role that combined the range of services previously delivered independently by the technical officer with that of the O&M instructor.

O&M is a diverse field that encapsulates “the concepts, skills, and techniques necessary for a person with a visual impairment to travel safely, efficiently, and gracefully through any environment” (Jacobson, 2008, p.3). This philosophy promotes a qualitative focus of empowerment through the development of the skills and techniques that facilitate safe and independent travel without sight. In addition, and as discussed earlier, O&M training can build the confidence required by Smith’s (1996) stereotyped “blind teenage girl who is terrified of the inner city” (p.88); however, why there is an assumption that these new skills should automatically increase the need, motivation or necessity of a person with a vision impairment to travel more frequently is unclear. Thus the justification to consolidate these professions into a single rehabilitation worker professional, based upon whether there is an increase in the number of journeys a visually impaired person undertakes following long cane training, is flawed.

Recent evidence also appears to demonstrate the importance of O&M training as a role of the rehabilitation worker. The overwhelming majority (over 93%) of professionals deliver O&M training in their practice, and with 74% professing to deliver long cane training (Franks, 2000), it may be that these techniques have a relevance to the population of visually impaired people. This being the case, it would appear that the proposals of Gray and Todd (1967) and Thornton (1968) are vindicated and challenge Dodds’ suggestion that O&M training has questionable value to visually impaired people. However, O&M training programmes and their content are highly individual. Their structure depends upon the psychological and physical abilities of the proposed traveller (including levels of residual vision), the environment within which travel is required and the motivations to travel. With a vast curriculum (see Hill and Ponder, 1976) from which to choose, the rehabilitation worker will endeavour to meet the client’s need by selecting the appropriate techniques and equipment. In

addition, O&M is traditionally a one-to-one training process that aims to develop an individual's travel knowledge, understanding, confidence and abilities, in some cases on one specific route and in others the delivery of a variety of transferable skills to be used on present and future routes. Therefore, rather than adopting the possibly flawed quantitative measure of an increase in the number of journeys as a descriptor of the value of O&M training, an evaluation of the intensity of training programmes may offer a qualitative measure that more accurately describes the value. To this end Small and Marin (2007) suggest between 80 and 400 hours of training is needed for a basic understanding of O&M to be achieved and Jacobson (2008) proposes that a totally blind student requires between 150 and 200 hours of training. It is clear from these estimates that effective use of the long cane requires a great deal of input and although a high percentage of rehabilitation workers (74%) will be involved in its delivery (Franks, 2000), this may be to a small number of their clients.

The misinterpretation of the value of the long cane is to be expected, as critical evaluation of any of the O&M techniques has so far largely been ignored, "taking for granted" (Franks, 2000, p.208) and accepting that the techniques are fit for purpose. Without critical evaluation of the suitability of O&M techniques, and in particular the use of the long white cane, this trend of acceptance is likely to continue whilst its suitability for the UK vision impaired population will remain unknown.

### **Summary of literature pertaining to O&M strategies and techniques for visually impaired people**

O&M training commonly provides a visually impaired person with the skills and confidence to enable them to travel safely and independently. In an attempt to uncover the impact of O&M training, Pey *et al* (2007) discovered that "Mobility training was identified as an important component of rehabilitation for blind and partially-sighted people" (p.23).

However, this does not necessarily confirm the relevance of the American long cane training method of two-point touch to the rehabilitation worker's predominant client group of older people.

Conversely, rehabilitative intervention seems to be not only relevant but in high demand.

Franks (2000) found an overwhelming agreement (77.27%) amongst rehabilitation workers that the over 75 client group benefited from rehabilitation intervention. She also reported that regardless of this applicability there was a lack of relevant focus on working with this client group in rehabilitation worker training. This would suggest that the pertinence of rehabilitation intervention, including that of O&M, and the use of the long cane may not necessarily be due to a lack of need for mobility solutions amongst older people with a vision impairment but may be a consequence of a lack of real world application within the rehabilitation worker's training.

The work of Franks, although clearly highlighting the importance of addressing the rehabilitation needs of the older person with a vision impairment, was focussed on defining the practitioner's role and therefore did not pursue the shortcomings of the training courses. However, in recognition of the need for a change she concludes by strongly encouraging the "mapping of the impact of a range of technical rehabilitation skills in the lives of older blind and partially sighted people" (Franks, 2000, p.209). Sadly, as clear as the findings and recommendations are there is no evidence to suggest that this research has yet been undertaken.

The development and introduction into the UK of the two-point touch long white cane technique has been well documented. This technique is integral to rehabilitation worker training and is considered one of the specialisms of this profession; however, the

demographics of the blind travellers for whom the techniques were originally developed contrast with those of the current predominant UK population with a visual impairment (older people).

## **THEORETICAL FRAMEWORK**

According to Maxwell (1996), the aim of a literature review is to “show how your proposed research fits into what is already known” (p.106) to demonstrate the contribution it will make and to contextualise the thesis within a theoretical framework.

The review of literature presented above suggests that the rehabilitation worker’s knowledge of O&M techniques is consistent with those introduced into the UK over 40 years ago.

Therefore, it is highly probable that only a small section of society, who possess attributes similar to those for whom the techniques were originally developed, would benefit from the application of these techniques.

With their training focussed on classical techniques, the novice rehabilitation worker could be ill prepared for situations, finding their knowledge does not fully meet their needs. The untested relevance of these techniques to their predominant client group requires the rehabilitation worker to develop new experience-based paradigms in order to deliver O&M solutions that suit their clients’ attributes. For a newly qualified worker with limited experience upon which to build new models of practice, a lack of empirical evidence to confirm the effectiveness, suitability and safety of adaptations could result in them struggling to acquire the confidence and knowledge base they need to develop relevant practice.

The process of professional development that facilitates the ability to react effectively to complex situations includes knowledge, experience and confidence. The process in which these domains can be developed is defined by Dreyfus and Dreyfus (2005) in their novice to



expert continuum: a five-stage model that describes the changes in the decision-making processes from novice to advanced beginner, to competent, proficient and expert. The stages of this model illustrate the progress from the novice 'context free' and 'rule guided' application of theory to the development of the practice-based 'know how' of the expert (Dreyfus and Dreyfus, 1986). Although originally developed from observations of the behaviour of pilots and chess masters, the model has also been successfully applied by Benner (2001) and Haag-Heitman (1999) to the role of nurses, and more recently by Berliner (2004) to define the behaviour and accomplishments of expert teachers. With nurses in many cases offering restorative physical and psychological therapeutic interventions to patients experiencing a disability or recovering from illness and teachers providing structured sessions of learning and development, both of these professions share skills and knowledge similar to that of the rehabilitation worker.

Progression along the novice to expert continuum to develop "subtle skills" (affective and cognitive) as opposed to "crude skills, like walking and driving" (psychomotor) (Dreyfus and Dreyfus, 2005) is not automatic. Benner (2001) places the emphasis for the development of experience-based knowledge on the assimilation of "knowledge embedded in actual nursing practice – i.e., that knowledge that accrues over time in the practice of an applied discipline" (Benner, 2001, p.1). This assimilation is not a consequence of length of practice alone, but requires facilitation by opportunities such as second level training, peer support and feedback from monitoring and inspection of practice.

A number of rehabilitation worker training courses include a practical and supported vocational placement in which students are required to apply their learnt theory to practice. Supported by an experienced professional, the novice worker's performance and abilities are

monitored through the formation of a professional learning relationship. Once this initial placement is complete it is often the case that the rehabilitation worker works alone. With the population of rehabilitation workers estimated to be 378 in England (RNIB, 2013d) and 650 (The future of Rehab meeting, 2012) across the UK, access to the knowledge and experience of others is limited and in some cases non-existent. The absence of learning relationships of this kind within the rehabilitation worker profession could hinder professional growth, particularly for novice workers who are trying to put theory into practice and “bridge [the gap] between education and appropriate application experiences in the work setting” (Kramer, 1999, p.117).

Not only is there the risk that the rehabilitation worker will experience limited professional development opportunities, but their profession as a whole is also currently in a state of flux. As discussed earlier in the Literature Review, with changes in the funding and delivery of social care expected over the next few years, the rehabilitation worker is faced with the task of independently adapting their knowledge, understanding and skills to suit their working role and environment. The nursing profession shares remarkable similarities with rehabilitation training. Porter-O’Grady (1999), discussing his support for Haag-Heitman’s development of a clinical practice model for nurses based on Dreyfus and Dreyfus’ five-stage model, highlights the challenges for professionals working in changing environments. He argued that “much of the context that defined the milieu in which nurses work has been altered dramatically, affecting the activities and functions of nursing practice” (p.15).

The diversity of experiences a rehabilitation worker has when interacting with individuals ranging from children, to older people, to people with learning or physical disabilities (Franks, 2000) offers them opportunities for reflective professional development. Similar to

social constructionism, their understanding of their clients' "social properties...[should be]... constructed through...interactions between people" (Robson, 2011, p.24). The culture of support required for professionals to develop a framework of the forethought, performance and self-reflection required to develop expert models of practice (Zimmerman, 2009) that suit this range of clients, needs to be integral to their training and day-to-day work. Without such opportunities the rehabilitation worker may be resistant to change, limiting their ability to transgress from the context free rules they were taught during their training and develop the practice-based paradigms based on experience to meet the needs of the client group. In this way, the rehabilitation worker clings onto the functionality of the novice.

Benner's (2001) use of the Dreyfus model of skill acquisition was not without its challenges; she reports the model does not offer "context-free criteria" (p.15) of talents and traits by which an expert could be identified. This lack of objective criteria was also recognised as a hurdle by Berliner (2004) investigating the behaviours of expert teachers. Therefore, it would be unreasonable to expect there to be objective criteria upon which expertise can be established within the rehabilitation worker profession. Benner's solution was to use a complex peer review strategy of critical clinical incidents, thus affording her the opportunity to uncover the socially embedded knowledge developed in practice alongside making that knowledge accessible to practising colleagues. With the level of competence in skill acquisition and working practice being achieved within three to five years of practice (Berliner, 2004), and with a small number of practising rehabilitation worker professionals, the recognition of the expert practitioner within the rehabilitation worker population will also present a challenge.

It is proposed in this literature review that rehabilitative intervention is focussed on facilitating an individual's opportunity to fulfil his or her potential (Davis and Madden, 2006, p.3). From this perspective the domain of O&M training and techniques should not be viewed as perfect solutions that are applicable to myriad situations. They should, however, be relevant to the common and shared needs of people with a vision impairment, in particular to the predominant client group. Alongside this, the rehabilitation worker needs to be equipped with the skills to source the experiences required to afford them the opportunity to progress along the continuum from novice to expert. All rehabilitation workers develop through experience and will be able to recognise the value of their experiences and the professional activities relevant to their development. It is also these workers who know the practice-based paradigms of rehabilitative intervention and as a result should be active and instrumental in the development of training courses and the education of rehabilitation workers.

### **Researching the practice-based paradigms of rehabilitative intervention**

The three studies presented in this thesis were inspired by the work of Franks (2000), who not only produced the most comprehensive catalogue of the historical development of the rehabilitation worker but also captured the diversity of their role within the context of social care provision. It is gratifying to see that her call for an “extensive study focussing on older people [as] ... an apt starting point” (p. 212) has in part been met by the work of Douglas *et al* (2006) and Pey *et al* (2007). In addition, the O&M provision researched by Pavey (2011) has recently addressed another element of her challenge for a substantive study on habilitative work with children with a visual impairment. Whilst these studies expose the challenges experienced by those people with visual impairments, evidence of the value and effectiveness of the rehabilitative interventions designed to address these challenges is absent.

The professional practice of vision rehabilitation aims to offer therapeutic intervention to visually impaired people within the social care setting; this is predominantly to adults.

Challenged with the personal experience of a visual impairment, these professionals are likely to encounter a range of biopsychosocial individualistic manifestations, requiring them to understand and offer interventions to problems that can often appear unique. Although the interventions used by rehabilitation workers have evolved over decades, there has been an unquestioning adherence and acceptance by training bodies offering rehabilitation studies programmes that the traditional methods are fit for purpose (Franks, 2000).

Of these interventions provided by rehabilitation workers, perhaps the most unique is that of O&M. A number of the interventions within the range of techniques including sighted guide, pre-cane skills and some uses of the long cane have ambiguous origins. In contrast, the long white cane two-point touch technique has a clear and traceable historical development from its origins in the USA to its inception in the UK voluntary sector. Although the techniques are well documented and evidence exists of their suitability for those for whom the techniques were originally developed, there is little empirical evidence of this technique's suitability to the UK traveller with a visual impairment. Therefore O&M and, in particular, the use of the long white cane two-point touch technique was the focus of the studies reported in this thesis.

The gap in empirical research on the subject of vision rehabilitation with adults offers an opportunity for the researcher to look beyond the constraints of the well-trodden path and to embrace wider perspectives. In doing so and in recognition of the challenges of undertaking a research programme within a field at the early stages of developing a research culture, it was important to consider the theoretical underpinnings of research undertaken in associated fields of work. Benner (2001) interpreted the novice to expert continuum of Dreyfus and Dreyfus

(1986, 2005) to recognise professional clinical expertise within the profession of nursing by moving the profession from a professional development route that required expert clinicians to move into senior positions away from clinical practice, to one in which the achievement of expert clinical practice was the focus of career development. This perspective appears relevant to the field of rehabilitative intervention for visually impaired people whose professionals currently lack a career ladder of any kind within their profession and are required to consider options outside of their profession for development.

## **CONCLUSION**

The focus of this literature review was to consider the culture of vision rehabilitation in the UK. This was achieved through the contextualisation of rehabilitation, vision loss and disability in the UK. Initially establishing the relationship between a loss of sight and the use of rehabilitation strategies, this theme was progressed to focus on O&M, a domain considered to be a specialism of the rehabilitation worker. In addition, this review highlighted the need for rehabilitation professionals to expand their knowledge through their practice, and proposed a skill acquisition model that has been adapted to the field of nursing, a profession with arguably similar therapeutic attributes as the vision rehabilitation profession in the UK.

In light of an initial literature search which suggested there was a dearth of literature on the value and effectiveness of a range of rehabilitative interventions and in particular O&M training – a finding supported by the observations of Franks (2000) and Pavey (2011) – parameters were established to focus the review effectively. A timescale for the review of literature was determined (2006–2012) along with the type and range of literature to be included: peer reviewed publications, anecdotal accounts and unpublished theses. This

approach offered the opportunity for the relevance of this review to be appreciated and constrained to the core subject matter.

It has become clear from this review that in spite of conflicting estimates of the population of visually impaired people in the UK, it is likely that we will see a growth in the percentage of the population experiencing age-related macular degeneration (RNIB, 2012a, 2012b), a sector loosely termed as older people. Therefore, this sector of society is likely to be one of, if not the main, client group of the rehabilitation worker.

With the majority of vision rehabilitation literature published in the USA, it is unclear whether the techniques used in the UK are relevant to the general population of visually impaired people, in particular older people, whose needs contrast with the war blinded ex-servicemen who the techniques were originally developed for.

The delivery of social care services to this sector of the population may require a diverse range of services. However, with limited empirical evidence and literature on vision rehabilitation – in particular the O&M techniques – there is an opportunity for the value of rehabilitation to be misunderstood and subsequently overlooked during a period of austerity and change in social care. It is therefore opportune to raise the profile of rehabilitative intervention and offer a firm foundation of empirical research upon which knowledge of the subject can be improved.

With limited empirical research and literature upon which to base professional practice, the alignment between the rehabilitation worker's training and the needs of their clients is unknown. The novice to expert continuum utilised in this literature review draws comparisons between health professionals in nursing and rehabilitation, offering a framework within which the process of professional development through experience can be understood. It is argued

that those delivering rehabilitative interventions, and in particular O&M, have the opportunity to develop models of practice relevant to their client group.

The three studies presented in Chapters 4, 5 and 6 of this thesis are exploratory and emergent in nature, with each subsequent study responding to the findings of the previous study. As the literature discussed in this chapter shows there is very little evidence that the techniques used by the rehabilitation worker suit the needs of their clients, the broad question posed for the first study (see Chapter 4) was: In what ways do rehabilitation workers think their professional training aligns with their professional practice and their clients' needs? This grounded qualitative approach was embraced in order to gather 'real life' meaning and events from the reality of delivering services to visually impaired people, which have the rigour and relevance required by practising professionals to develop their practice and training providers to add qualitative energy to their training courses. The methodological perspective employed by the researcher and applied to the capture and analysis of data across these three studies will be discussed in detail in Chapter 3, Methodology.



## **CHAPTER 3: METHODOLOGY**

### **CHAPTER OVERVIEW**

Each of the three studies presented in this thesis employed an exclusive method. Study 1 aimed to explore the rehabilitation worker's experience of practice, their opinions on the relevance of the training they received and their experience of professional development. To achieve this data was gathered from 17 semi-structured face-to-face interviews. Building on the findings of this study, Study 2 aimed to gather expert opinion on what constitutes good practice in the rehabilitative delivery of O&M training to older visually impaired people. For this study a panel of five experts participated in an electronic Delphi survey. The aim of Study 3 was to use the themes developed in Study 2 to investigate the practising rehabilitation worker's experiences of delivering O&M training to older visually impaired people. To capture this data a telephone interview was undertaken with 29 practising rehabilitation workers from across the UK.

To offer an opportunity to conceptualise the implications, characteristics, values and effectiveness of the specific data gathering methods used in the three studies presented in this thesis, a detailed description will be provided in each of the studies' chapters (Chapters 4,5 and 6). In addition, each of these chapters will include an account of the data analysis and coding processes.

This chapter will begin with an exploration of the researcher's methodological perspective; this discussion will expose the predominantly qualitative underpinning "design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcome" (Crotty, 2005, p.3). The chapter progresses with a discussion of the relationship between the researcher's post-modernist ontology "that celebrate[s]...[the]

richness, depth, nuance, context, multi-dimensionality and complexity” (Mason, 2006, p.1) of the individual’s consciousness. This is followed by an interpretation of the epistemological flexibility of qualitative research design and how these features can counter the logistical constraints of a self-funded study.

In addition to the general ethical considerations of a doctoral research programme, the ethical implications of undertaking studies that focus on the professional experiences of working with disabled people is discussed. This will acknowledge how practitioner-focussed studies – such as those presented in this thesis – can compound the imbalance of power that, according to Oliver (1996), already exists between the rehabilitative practitioner and disabled person. Similar to the value reflexivity can bring to qualitative research (Maxwell, 1996), the acknowledgement of this power balance aims to position the research within a wider context of challenging the “set of social relations and ... range of therapeutic practices that are disabling for all concerned” (Oliver, 1996, p.104).

The chapter draws to a close with the researcher’s perspective and methodology which informs the overall programme of studies and thesis development.

## **THEORETICAL ORIENTATION**

The limited findings of the preliminary literature search discussed in Chapter 2 suggested that there is a lack of empirical research in the field of vision rehabilitation and in particular O&M training. However, this search did reveal the unique and therefore significant ‘Birmingham Study’ of Franks (2000). This methodical survey captured the opinions of rehabilitation workers from across the UK to present a predominantly quantitative descriptive account of the diversity and range of their daily working practice. The recommendations made by Franks (2000) range from a call for a “systematic mapping of the impact of a range of technical

rehabilitation skills on the lives of older blind and partially sighted people” (p.208) to a proposal for rehabilitation worker training providers to release their staff for “regular fieldwork” (p.210) to improve the vocational relevance and application of their curricula. In short, the underlying theme of Frank’s recommendations is an uncertainty – borne out of a lack of empirical research – of the value and effectiveness of the strategies employed by rehabilitation workers to meet the needs of visually impaired people.

The empirical work of Franks was adopted by the author of this thesis as a foundation upon which an interpretivist perspective of the significance, meaning and contextual influence of the experience (Maxwell, 1996, Parker, 2002) of rehabilitation workers’ practice could be explored.

Establishing the ‘truth’ is an over-riding trait of human inquisitiveness and is a process that relies on verified fact and concrete evidence “for example, judges and ordinary citizens serving on our juries are beginning to distrust anything but ‘scientific’ evidence” (Dreyfus and Dreyfus, 2005, p.790). Although much criticised for its nurturing of “the division between theory and research” (Charmaz, 2010, p.5), this positivist perspective is often at the root of the assumption that quantitative research findings are ‘value-free’, ‘objective’, founded on fact and the precursor to universal causal laws (Robson, 2011). Defining the relationship between science and reality, Brown (1994) proposes that “theories correspond to an independent reality. By ‘independence’ I mean that the truth of a theory has nothing to do with the structure of our minds (as it does for Kant) or the way we determine the truth-value of theory” (p.81).

By emphasising the concept of distance between the ‘structure of our minds’ and the ‘truth of a theory’, this positivist perspective deems the person, actor or instigator to be a disruptive

influence upon the objectivity of evidence. A traditionally scientific approach, it forsakes Descartes' "Cogito, ergo sum" (see Sutcliffe, 1968) perspective and fosters a similar dualistic conflict (to that of independence of mind and body) between the concrete, observable, measurable fact and the postmodernist "array of dimensions of the social world, including the texture and weave of everyday life, the understandings, experiences and imaginings" (Mason, 2006, p.1) of the mind. With the quantitative methods of modernism traditionally viewed as scientific and objective, qualitative methods can often be considered as the weaker of the two perspectives, as Yin (2003) eloquently argues:

...qualitative research including case studies, is characterized as being 'soft' social science, dealing with inadequate evidence. Quantitative research is considered to be hard-nosed, data-driven, out-come orientated and truly scientific. (p.33)

Thus, she promotes the perceived value of quantitative data over that of qualitative.

However, as Robson (2002) reasons, although making a case for a demarcation between quantitative and qualitative methodology is interesting, in many instances researchers opt for a mixed methods approach in which qualitative and quantitative methods are employed in a complementary manner. This combining of methodological perspectives has caused him to offer the terms 'fixed' as a descriptor for research designs that have a pre-specified process and 'flexible' for those programmes that adopt a more emergent perspective. In many ways this approach would seem prudent as it allows researchers to employ methodology that suits the focus of the research. More recently Robson (2011) has offered a sobering 'higher level' pragmatic perspective to choosing methods in which he advocates a 'what works' approach. The central idea of this approach "is that the meaning of a concept consists of its practical implications" therefore a "pragmatist would advocate using whatever philosophical or methodological approach works best for the particular research problem" (p.28).

## **Ontology, epistemology and logistical implications**

The financial and time constraints of this self-funded study had an impact on the realisation of the researcher's ontology and epistemological perspective. The researcher's postmodernist ontological assumption is that social reality exists in the consciousness of an 'observer relative' perspective. This focus on "those features that depend on us for their existence" (Searle, 2006, p.13) informed the epistemological perspective that the models of practice developed by the rehabilitation worker are achieved through a process of subjective deliberation of the meaning and values of their experiences. This process in which the researcher's "ontological assumptions give rise to epistemological assumptions" (Cohen *et al*, 2007, p.5) refined the predominantly qualitative methodological considerations, that ultimately gave "rise to issues of instrumentation and data collection" (*ibid*).

It could be argued that the reality of both a visual impairment and rehabilitative intervention reside in the experience and perspective of the person with a visual impairment. It is important, therefore, to establish the rationale for the overarching aim of the three studies presented in this thesis: to investigate the practice-based paradigms developed by rehabilitation workers through an exploration of their professional activities.

Reflecting on recent studies, most notably 'Network 1000' (N1000) (Douglas *et al*, 2006) and 'Functionality and the Needs of Blind and Partially-Sighted Adults in the UK' (FNBPS) (Pey *et al*, 2007), a great deal of data has been captured that explores the reality of living with a vision impairment in the 21<sup>st</sup> Century. Both of these studies canvas stakeholder viewpoints of 'experienced expertise', a concept championed by the Department of Health's (DoH) 'Expert Patients Programme' (DoH, 2001b) and one they feel "has for too long been an untapped resource ... that could greatly benefit the quality of patients' care and ultimately their quality

of life” (*ibid*, p.5). Like the people with long-term chronic diseases – identified as experts by the DoH – the experience of an impairment and the experiences of a disabling society naturally affords the title of expert to the disabled person (Oliver, 1996), in this case the person with a visual impairment. The studies of Douglas *et al* (2006) and Pey *et al* (2007) have excelled in producing a wealth of data that provides an insight into the social needs of this expert client group. Intended for use by policymakers and service providers, these studies present an accurate measure of the current circumstances of the met and unmet needs of people with a vision impairment.

Although there is abundant evidence of the circumstances and unmet need of people with a vision impairment, there is a lack of knowledge of the experience and perspectives of professionals delivering services to people with a visual impairment. In an attempt to define their role the ‘Birmingham Study’ of Franks (2000) surveyed 330 practising professionals delivering services to people with a vision impairment. This predominantly quantitative study produced an overview (Franks, 2000) of the professional role but falls short of providing evidence of the value and effectiveness of the interventions a rehabilitation worker employs. Evidence of this type is open to the erroneous interpretation that it documents a qualified standard and a validated level of acceptable service. In these cases the gathering of qualitative detail of professional working practice (the focus of the three studies presented in this thesis) that would offer evidence of validated practice can promote an equality of power in favour of the practising professional. Therefore, this approach must be tempered with an understanding of the power balance that is argued to exist between the professional offering services and the disabled person.

Oliver (1996) claims that rehabilitation “is the exercise of power by one group over another and further, that exercise of power is shaped by ideology” (p.104). It is clear from this statement that it is Oliver’s opinion that disabled people hold a disadvantaged position within the rehabilitative relationship and are indeed disadvantaged by the society around them. It is inappropriate to criticise or attempt to devalue the experienced expertise status of a disabled person; however, the field of vision rehabilitation has offered intervention services for a number of years, the exposure of the ideology and the values that exist in this field can offer the opportunity for the inequality of power to be challenged.

The aim of rehabilitation as described by Davis (2006) is “for individuals to be able to develop a sense of self-worth and independence” (p.33). She goes on to explain that to achieve this the role of the rehabilitation professional needs to transcend the impairment and disability through the identification of “problems and needs, and relating these problems to impaired body functions and structures, the factors of the person and the environment” (Davis, 2006, p.34). This biopsychosocial perspective (as discussed in Chapter 2, the Literature Review) hints at an individualised focus of intervention within the holistic framework of rehabilitation, and it is this individuality that is key to keeping the power balance within rehabilitation in check. Accepting the powerful position of a rehabilitation worker and the ideology of a social model of disability (Oliver 1990) whilst understanding that through a relationship that is specific in focus and time-bound the restorative process aims to enable the disabled person “to regain lost elements of their life” (Davis, 2006, p.8), through empowerment it is ultimately established that the aim of rehabilitation is to shift the power balance from the worker in favour of the disabled person.

According to the Department of Health, the “skills and expertise of professionals are no less essential” (DoH, 2001b, p.28) to the planning, implementation and success of patient interventions than the expertise of the patient themselves. Consequently, it is safe to propose that for the design of effective social service frameworks, policymakers and service providers require both a knowledge of the circumstances of the experienced person (with a vision impairment) and the perspectives of the experienced professional, in this case the rehabilitation worker as the recognised professional expert in the delivery of services to this client group.

It is important to note that this professional perspective is just one viewpoint, and although it could be argued that with multiple clients the rehabilitation worker is in a position to provide a perspective based on a range of experiences, the value of the real life experiences of visually impaired people is desirable. To achieve this, a survey of those people who have received O&M training would be required. Nevertheless, the facts of the matter are that although, as discussed in Chapter 2, the Literature Review, Franks found that 93% of her participants delivered O&M training, of the 1,428 participants surveyed by Pey *et al* (2007) only “38% of respondents had received some sort of mobility training” (p.23). In light of this, the expected costs associated with contacting, recruiting and surveying this small number of recipients posed a challenge to the financial restrictions of a self-funded study of this kind. However, the value of the inclusion of stakeholder viewpoints is recognised as a recommendation for further research (see Chapter 8, Conclusion and Recommendations). It was this author’s interpretivist aim to further the work of Franks by adding ‘colour’, meaning and description (Cohen *et al*, 2007) to the rehabilitation worker’s behaviour and intentions that underpin their application of rehabilitation strategies. Focussing on the professionals, the three studies presented in this thesis were flexible and emergent in so much as they evolved, developed and



unfolded in response to the findings (Robson, 2002) of the research activities. It is intended that the evidence of practice trends uncovered within these studies will challenge the theoretical knowledge base of rehabilitative intervention for visually impaired people. Providing rehabilitation worker training providers with the features of 'real life' rehabilitative practice and the perspectives of expertise that facilitate the professional growth of the 'fit for purpose' rehabilitation worker, it is intended that ultimately this will improve services to visually impaired people and challenge the power balances within rehabilitative relationships.

### **Researcher bias**

The lack of published literature into the practice of the rehabilitation worker, as discussed in Chapter 2 the Literature Review, suggests that these professionals have limited exposure to participation in research programmes. For this reason, an epistemological stance in which the researcher is able to support the involvement of the participant and is therefore involved and integral to the process of knowledge development would seem prudent.

It is argued that every individual forms and maintains a subjective viewpoint of their circumstances based on a complex range of personal experiences (Stevens, 2002). It is this characteristic that facilitates their understanding of their environment and social interactions (Stevens, 2002; Wetherell, 2002). Regardless of this individuality, there are some common truths that transcend the general population and it is a belief in this principle that leads to the quest for objectivity in research (Robson, 2011). Social research involves two protagonists, the researcher (or research team) and the participant (or subject). Therefore, it is "inevitable that the researcher will have some influence on the interviewee and, thereby, on the data" (Cohen *et al*, 2007, p.150). It is through the management of this relationship that the objectivity of a research programme can value the influence of subjective bias.

Similar to the tactic of preventing the experimenter from meeting the participant (Bannister *et al*, 2002), a common solution to subjective influence is the use of research methods that create a distance between the researcher and the respondent. Methods such as the postal questionnaire adopted by Franks (2000) for her 'Birmingham Study' could be said to facilitate the creation of this distance. Fashioned by the researcher, distance is created in the belief that the objectivity of data is reliant on the freedom of the participant to respond as they see fit, without influence and with an element of ignorance of the research focus. But this may be a false proposition for researchers since, as Parker (2002) notes, "by keeping a distance between themselves and their objects of study, they are actually themselves producing a subjective account, for a position of distance is still a position and it is all the more powerful if it refuses to acknowledge itself as such" (p.13).

Although the participant can be isolated from direct researcher influence, the method, devised, constructed and managed by the researcher, is constructed from a subjective perspective. This may be especially true in quantitative research employed to test the hypotheses (a formalisation of the researcher's subjective viewpoint). If we accept that the researcher's perspective is subjective then we cannot expect the participant responses to be objective. As an example, the use of the postal questionnaire by Franks affords the researcher the opportunity to control their interaction with the participant. On the other hand, by offering no or limited guidance there is increased opportunity for participant bias. A response given could be based upon an attempt to infer the researcher's purpose in asking the question or, and more importantly, the answer received for a remotely asked question may not be "in itself, proof that the question has worked as the researcher intended it to work" (Foddy, 2001, p.52).

By formalising the interaction between the experimenter and subject (Robson, 2011), offering flexible engagement of the participant on the other hand, gives rise to opportunities that validate and secure objectivity throughout the data gathering process, thereby contesting the presumption that objectivity is an automatic product of distance. By facilitating participants' understanding of the methods and processes employed in the study, the researcher can be more confident in differentiating between objective and subjective responses. If, having secured the knowledge of the participant as described by Robson (2011), their responses are considered the same or similar across the sample this can demonstrate objectivity, whereas single individual responses can be viewed as subjective. It is this recognition of the interrelationship between the objective and subjective perspectives of the participant that is fundamental in establishing the validity of the research method used.

Cohen *et al* (2007) argue that "Researchers are in the world and of the world. They bring their own biographies to the research situation and participants behave in particular ways in their presence" (p.171). A contemporaneous contribution by the participant and researcher requires both parties to accept the notion that they are both integral to the formation of the emerging meanings and research themes. Whether intentional or not, once the researcher is known to the participant, this interaction becomes potentially reactive (Robson, 2011), termed as either the 'observer-expectancy effect' or 'experimenter effect'; an extreme example was seen in the obedience to authority experiments of Milgram (2005) in the early 1960s. In these experiments the presence of an observer in a white coat (the authority) influenced the participants' behaviour in an experiment to follow rules that transgressed their moral compass (obedience). Although consciously arranged to manipulate the behaviour and reactions of the subjects of his experiments, this (rather extreme example) hints at the possibility of all researchers (physical or virtual) to influence the responses provided by a participant.

However, by recognising the ethical and moral implications of this relationship through the evaluation of the power dynamics using rigorous academic criteria (Burman, 2002), control over researcher influence can be achieved. This proactive reflexivity during the creation, formalisation and execution of the research programme enables both the researcher and participant to legitimise and formalise their interaction, circumventing the catalytic event of researcher influence and refuting claims of subjective bias.

Subjective bias was a major concern of the researcher. With 20 years' experience of rehabilitation practice and the training of rehabilitation workers, it is perhaps obvious that preconceived ideas and perceptions exist (and as a current provider of training possibly an ulterior motivate – a point discussed further below). On the other hand, as a researcher with a great deal of experience of interacting and working with people, the contribution the author of this thesis was able to bring to the process of design and data capture was undeniable (Robson, 2011). It is this knowledge of the field of rehabilitation that facilitated the selection of participants.

Finding limited research in the field of rehabilitation from the initial literature search, Study 1 (presented in Chapter 4) was predominantly exploratory and therefore a face-to-face interview method was considered to be the most effective. However, the limited resources available to a self-funded series of studies would always challenge the recruitment of participants and the data collection. To manage the logistical impact of the time and cost of this process, the researcher, well known in the field of rehabilitation, undertook a convenience sampling process in which participants were selected for their geographic location, the south east of England. Whilst reducing the cost of travel, the knowledge of the researcher facilitated access to appropriately experienced and accessible participants. Recognising the opportunity for

recruitment bias along with researcher and participant bias, this process was managed by ensuring that the participant's thorough knowledge of the process and focus of the research was established prior to the interviews. In addition, the valuing of the researcher's position and close supervision by a representative of the University of Birmingham "who has the methodological skills and the experience" (Robson, 2011, p.134) informed the structure of these processes effectively.

Although all aspects of research are prone to bias, none are more susceptible to researcher influence than the analysis of data. Even for the quantitative researcher, the objective interpretation and manipulation of numerical data to prove or disprove a hypothesis is not without its challenges. As Perakyla (2004) argues "enhancing objectivity is a concrete activity. It involves efforts to assure the accuracy and inclusiveness of recordings that the research is based on as well as efforts to test the truthfulness of the analytic claims" (p.283). This proposed concrete activity is of particular importance to the flexible researcher who, striving to code and standardise the wealth of complex, diverse, subjective and objective data, is challenged with the possibility of misinterpretation through subjective bias and the loss of relevant data, meaning and ultimately objectivity. The term subjective, used to describe an individual's perspectives, experience, feelings and beliefs (Stevens, 2002), is rather succinctly described by Searle (2006) as "a matter of opinion" (p.15). This has interesting connotations for a research project. On the one hand the researcher is complimented (as above) for their subjective knowledge when providing support and relevant information to the participant during the data capture process and is considered an integral feature of the research, but on the other hand is also considered to disrupt the objectivity of data analysis.

Like the concept of distance, the ability of the researcher to analyse data objectively is questionable. The inclusion of the researcher's perspectives, rather than being seen as manipulative, should be valued as insightful. In this respect a tried and tested method of validation is the use of a collaborative interpretation strategy. By evaluating the suitability of the research methods and by reviewing the data, collaborators (researchers and/or participants) are able to reach agreement on the subjective and objective interpretations. The benefits of this type of collaboration are clear in the research of Benner (2001) who, by seeking the agreement of members of her research team, was able to achieve consensual validation of the research data and raise confidence in the accuracy of the conclusions.

The flexible approach to research offers the opportunity to gather data that has "fidelity to real life, context and situation specificity, authenticity, comprehensiveness, detail, honesty, [and] depth of response" (Cohen *et al*, 2007, p.149). This can only be achieved by a researcher who aims to approach data gathering with an open mind and reflexivity that allows the participant to influence the focus of the interview and discussion topics. Many fixed design researchers invite their subjects to add additional comments or observations, often in the form of open questions. Although going some way to investigating the meaning individuals attach to their experiences, this process can still control the focus of the subjects' responses and guide them to answer only the questions asked. Leaving little room for expansion or explanation, this rigidity of focus in the search for only specific answers to specific questions is considered a defining characteristic of objective scientific research.

Although the combining of research perspectives tries to redress the imbalance of evidence, it often offers little opportunity and freedom for participants to discuss what is really important to them. The majority of social research programmes require a mixture of flexible and

quantitative methods, dependent on the type of data required. But this combining of methods can result in the amassing of an array of data that may offer contrasts and contradictions and cloud the search for purity and clarity. By far a better approach would be to adopt the perspective of Robson (2011) and refine the line of enquiry to facilitate the use of a methodological approach that “works best for the particular research problem” (p.28). Having undertaken a number of studies, the analysed data can then be subjected to a meta-analysis process in which the researcher “put[s] together the findings from previous work ... rather than carry out one more empirical study” (*ibid*, p.376). Therefore, a meta-analysis of the three studies’ findings culminates in the production of a truly in-depth, complex and cross-discipline picture of the work of rehabilitation workers with high confidence levels that resist criticism and erroneous manipulation.

### **Capturing the reality of professional practice**

The three studies presented in this thesis were designed to gather detailed descriptions of socially constructed and contextual meaning through the exploration of perspectives of experience. The validity of this process is prone to influence but as Mason (2006) argues, validity “means that you are observing, identifying or ‘measuring’ what you say you are” (p.39). Adopting Robson’s (2011) term flexible as a descriptor of research designs that “evolve as a result of what is found out in the early stages” (p.5), the issue to be observed, identified or measured may not be apparent at every stage of the research programme. But it is exactly this fluidity of focus that in turn promotes validity of the research process.

Social research methods are prone to be manipulated by the subjective perspectives of the participants, who interpret the focus and estimate the researcher’s expectations and rationale. For example, in striving for validity the quantitative researcher may employ a questionnaire

with the belief that by reducing the participant's options, concise accurate responses can be elicited that address exactly what the researcher has in mind. But as discussed earlier, participants are susceptible to their personal interpretations and as a result their perspective of the questions asked may vary from the intention of the researcher (Foddy, 2001). With this in mind, it is safe to assume the validity of a method is directly linked to not only its effectiveness in reflecting the researcher's intention but also its effectiveness in focussing the participant's perspective and contribution. This requires the researcher to estimate the level of knowledge of the process and research rationale required by participants to ensure their responses relate to the subject to be measured.

This conundrum is challenged by the flexible researcher whose involvement in the research process through use of effective communicative relationships endeavours to offer the opportunities that facilitate participant understanding and interpretations. In this way confidence in the validity of the method can be increased. Without this type of collaboration, confidence in the gathered data being a measure of the researcher's original conception is reduced (Robson, 2011).

Forgetting is a characteristic of all people, whether through interference, trace decay or multi-component "crumbling" (Baddeley, 1994). The extent to which we remember specific events is both time and context related. In fixed design research in which there is a notable absence in the opportunity to contextualise a line of enquiry, there is little to substantiate the reliability and validity of responses. In contrast, acceptance of the uniqueness of perspective and memory rests at the very core of the flexible researcher's philosophy and as a result the variety of the individual's perspective is in itself considered as valid. The opportunity that the flexible researcher has to interact with participants can assist in identifying contextual



relationships and subsequently accessing semantic memory of the events being investigated. In ascertaining the suitability of various research methods, it is essential to ensure that the issue being observed, identified or measured is the driving force behind the selection of the chosen method.

The validity of the process is of paramount importance to studies that support and promote change within a particular field and participants (Robson, 2002). This philosophical underpinning of promoting change prompted the use of the Delphi method of survey for Study 3 (presented in Chapter 5). A value of the Delphi method is the flexibility offered by the openness of the survey focus, the participant controlled responses and, most importantly, the peer review opportunity during the summary rounds. This latter element, in which the participants reach consensus of opinion on the survey topic, balanced with a distance created between the participant and researcher promotes the validity of the process. With all participants, researcher interaction was managed by e-mail so the Delphi survey afforded a cost effective flexible design method for a self-funding study whilst also meeting the interpretivist perspective of the research.

### **Procedural reliability**

Focussing on the feelings, expressions and emotions and “concern[ed] with how the social world is interpreted, understood [and] experienced” (Mason, 2006, p.3), flexible research design can offer challenges to the repeatability of the research methods employed. Research reliability is often concerned with the accuracy and “dependability of a measurement device or test” (Tindall, 2002, p.143). As Tindall goes on to argue, this is interpreted as how accurate the measurement device is at producing similar data when the research event is repeated. In

short, the measuring on more than one occasion of the same phenomenon with the same research method should produce the same results.

There is no doubt that quantitative research is strongly focussed on the repeatability of a process. As Perakyla's (2004) reiteration of Kirk and Miller's (1986) argument shows, in "qualitative research ... the primary emphasis has usually been laid on validity rather than reliability, whereas in quantitative research the emphasis has been on the opposite" (p.299). This is quite understandable as flexible research methods are designed to gather subjective accounts and descriptions based on experience. The data is unique to the individual, which indicates that receiving similar data from other participants is unlikely. Flexible research methods, unlike their quantitative counterparts, are not readily applicable to reliability tests. This is an issue that arguably places excessive emphasis on the researcher to struggle for reliability and diverts attention from the issue of validity to such an extent that the "researcher may be not at all clear about what they are measuring (validity), but can nevertheless claim to be measuring it with a great deal of precision (reliability)" (Mason, 2006, p.187).

As the value of experience is dependent on the perspective of the observer then there is little doubt that even the same experience will be viewed differently by individual participants. As a result the value of reliability for the flexible researcher needs to be redirected from one of the accuracy of repetition to the consistency of the methods. As Perakyla (2004) argues, "all serious qualitative research involves assuring the accuracy of recordings and testing the truthfulness of analytic claims" (p.299). However, when striving for validity aimed at countering the error, misunderstanding and misdirection (Holstein and Gubrium, 2004) that can so readily contaminate evidence, care must be taken not to forsake the flexible characteristics of open mindedness, creativity and evolutionary development. If maintained,

they will afford the flexible researcher the opportunity to effectively use collaborative strategies aimed at both confirming the accuracy of the data gathered and the evidence produced.

### **Reality research**

For any social research to be of value, the themes and findings must in some way be applicable to a wider population. The quantitative approach is often one of canvassing very large and isolated samples resulting in the production of a vast amount of data considered statistically relevant to the population. The results of such an approach are often considered valid and generalisable because of the control of the focus, the lack of subjective interference and its suitability for mathematical analysis. The establishing of objective universal truths through the gathering of predominantly numerical data from large population samples, with the subsequent production of evidence that can be generalised to the wider population, has a limited application. It can be argued that it is more likely that the themes produced are applicable to populations that share similar characteristics.

For the flexible researcher, their in-depth data gathering methods challenge the canvassing of large populations and the value of control. This approach promotes individuality and subjectivity that appears to resist statistical calculation and generalisation. Despite this, the relevance of social research to the general population is a cornerstone of its existence and being confident that the sample at the centre of the research project is representative of the larger population is paramount. If we take as an example the research of Benner (2001), the contextual relevance of the nurse's environment and job role ensured that the data was gathered from a sample that possessed characteristics that were consistent across the general population of nursing staff. Likewise this relevance to the population is also evident in the

quantitative research of Franks (2000) who, by eliciting responses to her postal questionnaire from 330 practising rehabilitation worker, secured the generalisability relevance to the larger population of rehabilitation workers currently estimated to be within the region of 378 in England (RNIB, 2013d) and 450 (Rehabworker, 2008) to 650 (The future of Rehab meeting, 2012) across the UK. As in the work of Benner, this research is contextually relevant to those contributing; it cannot be applied to a larger population with characteristics outside of those possessed by the sample. In this respect the generalisability of the research when used as a measure of its validity must be considered as context relevant and secured by rigorous investigation of the characteristics that span the sample at the centre of the research and the population to whom the findings are proposed to be of relevance.

The uniqueness of qualitative research is its flexibility to study the variations of complex human behaviour in context, discovering patterns and themes that are applicable to that context. The collaboration of the participant and the insightful researcher creates data unique to the relationship, which with thorough analysis can reveal general patterns where confidence is high that they are applicable to a large population.

It is argued that “most, if not all, human behaviour can only be properly understood if it is thought of as social in nature, that is as being directly or indirectly bound up with and influenced by the behaviour of others” (Gross, 1993, p.554). This social constructionist perspective “is in keeping with the Dreyfus [Novice to Expert] Model, which offers no context-free criteria to identify persons as possessing talents or traits indicative of expertise” (Benner, 2001, p.15). This perspective demands data is relevant only when viewed in the context of not only the wider social environment of the participant but also within the boundaries of the interaction between researcher and participant as actors and instigators of

their reality. Although this creates a concept of uniqueness to the research evidence produced, the general patterns uncovered will be relevant to similar interactions and as a result, although not carrying the weight of statistical evidence, this type of data does carry the weight of contextual and social relevance.

For the moulds of working practice to be reformed, the current state perspectives of the experienced disabled person (Douglas *et al*, 2006; Pey *et al*, 2007) and the measure of professional function uncovered by Franks (2000) need to be strengthened with the qualitative knowledge of value possessed by the practising professional. This can best be achieved through the investigation of the “wide array of dimensions of the social world, including the texture and weave of everyday life, the understandings, experiences and imaginings of” (Mason, 2006, p.1) the practising and experienced rehabilitation worker. Mixed method approaches in which data is combined during analysis, as Dale (2011) argues, offers “very different kinds of understanding of the same topic but, used together, can complement each other and provide a more powerful research base than either method alone” (p.95). With similar intention, a broadly qualitative methodology was chosen to complement the quantitative approach of Franks (2000) in exploring the underlying reasons and motivations of rehabilitation workers, working with visually impaired people.

## **TRUSTWORTHINESS**

It is clear from the discussions above that researchers work hard to convince their peers that the principles of validity, reliability and objectivity are achievable within social research. From an interpretivist perspective the adoption of these terms is logical as the reality of their use can be as multifaceted as the social worlds the participants construct. However, similar to the perspective suggested by Thomas (2013) who states that interpretivist researchers should

“accept...[their]...subjectivity and not be ashamed of it or afraid of it” (p.145), the use of terminology that is both relevant and suitable to qualitative research should be confidently applied. Therefore, to enable the reader to focus on the data, findings and discussion (rather than the suitability of the terms validity and reliability to qualitative research), the author of this thesis has chosen to review the methods used in the studies (within their relevant chapters) following the Guba and Lincoln (1994) framework of ‘trustworthiness’, reviewing research in terms of its credibility, transferability, dependability and confirmability.

In the case of the three studies presented in this thesis, the credibility criteria will focus on the internal consistency and truth of the data to represent the participants’ views (Morrow, 2005; Cope, 2014). This will be achieved across the three studies by exposing the relationships between the researcher and the participants, evaluating the effectiveness of the data capture method and recognising the accuracy of the data and analysis.

When considering the transferability of the findings of the three studies, each chapter will present detailed descriptions of the data and findings to “allow readers to make inferences about extrapolating the findings to other settings” (Polit and Beck, 2010, p.1453). The barriers to this and possible options to improve transferability will also be proposed.

Dependability of qualitative research is described by Guba and Lincoln (1994) as “paralleling external reliability” (p.114). The interpretivist perspective of the researcher embraces the subjective construction of experiences and, therefore, challenges the ability for the same thing to be measured twice. Therefore, discussing the context within which the research was undertaken (discussed in the relevant study chapter) aims to uncover the strengths and weaknesses of each method and in doing so promote the dependability of each of the studies.

The exposure of researcher reflexivity (discussed earlier and later in Chapter 8) goes some way to demonstrate confirmability by showing that the data represents the participants' responses (Cope, 2014). In addition to this, each chapter includes a detailed description of the data collection, analysis, research decisions and participant responses that are unique or negative. The aim of this is to present the research process "in such a way that the reader is able to confirm the adequacy of the findings" (Morrow, 2005, p.252).

The adoption of this framework for evaluation aims to highlight the interpretivist perspective that traverses the data capture and analysis of each of the three studies and the production of this thesis.

## **DATA COLLECTION**

With the findings of the Literature Review (see Chapter 2) showing there to be a lack of empirical research from which a formal research focus could be identified, it was felt advisable to undertake a study into the professional work of rehabilitation workers that was exploratory in nature. At the beginning of the project, adopting a flexible design perspective was considered to be the most realistic option. It allows the researcher to "provide an account of ... [the] ... journey documenting the various changes made along the way" (Robson, 2002, p.82) in contrast to a fixed perspective, where the researcher is "bound to some form of 'honour code' where, say, you declare your initial set of research questions" (*ibid*, p.83). Therefore, in order to explore the subject in detail and to manage the costs of face-to-face interviewing, a convenience sample was selected (n=17) for Study 1. A convenience sample, as described by Cohen *et al* (2007), "involves choosing the nearest individuals to serve as respondents" (p.113). Clarifying the value of such a sample, they go on to offer the advice that "as it does not represent any group apart from itself, it does not seek to generalise about

the wider population; for a convenience sample that is an irrelevance” (p.114). When selecting a convenience sample in a field within which the researcher is well known, the invited participants may feel obliged to contribute, offering a challenge to the legitimacy of informed consent. Addressing this issue, following a telephone invitation by the researcher each participant received a research briefing document (for further details see Chapter 4) by e-mail and a request for them to propose a convenient date and time for the interview. To avoid opportunities for the researcher to pressurise the invited participant into contributing, no further contact was made, thus leaving the final participation agreement confirmation in the hands of the participant. A one hour qualitative semi-structured face-to-face interview schedule was developed to capture the rich semantic perspectives of the experienced and practised professional and promote the facilitation of disclosure and reflexive commentary (Burman, 2002).

Study 2 employed a Delphi survey strategy. This process with its origins at the RAND Corporation in the early 1950s is described by Brown (1968) in ‘A Methodology used for the Elicitation of Opinions of Experts’ who clearly highlights its use as a predictive tool. This approach is designed for the gathering of data from experts and in particular promoting the positive aspects of working in groups whilst pre-empting the negative aspects such as social, personal and political conflicts (Rowe and Wright, 1999). This method enabled the researcher to gather opinion from an organised group of experts whilst facilitating them to interact with anonymity, to recognise and reflect upon their contributions during procedural iteration, and to promote the development of their knowledge and experience of practice. The Delphi method “is well suited as a research instrument when there is incomplete knowledge about a problem or phenomenon” (Skulmoski *et al.* 2007, p.1), and therefore appropriate in the field of rehabilitation where there is a lack of research.



Five participants were selected for the Delphi survey, based on their status; professional experience; guaranteed access to information (Brown, 1968, p.4); “knowledge and experience with the issues under investigation; ...capacity and willingness to participate; ... sufficient time to participate...and...effective communication skills” (Skulmoski *et al*, 2007, p.4). Contacted in the first instance by e-mail (including a participant briefing document), each participant was asked to acknowledge their informed consent by replying to the e-mail with a completed general information questionnaire (for further details of these documents and the selection process see Chapter 5).

Undertaken over three rounds, the Delphi process was administered electronically (by e-mail) affording the researcher distance and a cost effective solution to surveying participants from geographically diverse locations. This method offered the participants anonymity, allowing them to freely express their opinions. In addition it encouraged open critique and the correction or refinements of errors by revising earlier judgments through a process of iteration whilst challenging some of the more confounding influences such as ‘domination’, ‘bandwagon’ or ‘halo effects’ commonly associated with peer interaction during panel meetings, committees and focus groups.

The aim of Study 3 was to capture the real life interpretation of theory in practice. Utilising the themes developed during Study 2, a broad sample of practising rehabilitation workers was required. In the interests of informed consent, the participants were attracted through an invitation advertised in an industry journal, on websites and circulated to peer support forums and professional bodies. Upon expressions of interest (n=60), each participant was sent a briefing document and requested to complete a general information questionnaire (see Chapter 6 for further details) if they were interested in participating. It was anticipated that the

responses would be geographically diverse and therefore exploited the rather obvious view of Robson (2011) that a telephone interview offers the researcher opportunities to “capitalis[e] ... on many of the advantages of interview-based surveys while substantially reducing the time and resources involved in running face-to-face-interviews” (p.263).

## **DATA ANALYSIS**

Responding to the lack of empirical literature encountered during the initial literature search in 2006, an emergent flexible, qualitative research design was proposed. Offering an exploratory openness that could respond to the evolving thoughts of the researcher (Fischer, 2006), the use of a grounded approach to the data analysis was in many ways both natural and complementary.

The researcher wanted the findings of this self-funded study to be of value to the field of vision rehabilitation by offering an insight into the working practices of rehabilitation workers and by feeding back the findings to professionals and training providers. Although hinting at the idealism of the ‘action agenda’, Robson’s (2011) description that the “intention is that the research and its findings will be used in some way to make a difference to the lives and situations of those involved in the study, and/or others” (p:175) draws out the intrinsic link between participant and data. Interestingly, this is remarkably similar to the situation the grounded researcher, according to Bryant and Charmaz (2011), finds themselves in: so immersed in their data that it is the data itself (through saturation) that is the criterion upon which collection ceases. The synergy of the action researcher’s belief in the value of their research and the grounded theorist’s belief in the value of the data gathered appeared evident in this researcher’s philosophical perspective. Therefore, Studies 1 and 3 presented in this thesis were subject to a grounded analytical method (see Chapters 4 and 6) and the data

gathered during Study 2 to participant evaluation, which will be considered in detail in Chapter 5.

The semi-structured interviews of Study 1 were digitally recorded and the themes of each interview transcribed into Microsoft Word 2007 documents. These documents were transferred for analysis to the QSR NVivo 8 qualitative analysis software. Details of the coding categories and themes of this data are considered in detail in Chapter 4 (Study 1 – Exploring rehabilitation workers’ opinions of the relevance of their training to their practice and the needs of their clients).

The structure of the Delphi survey required the researcher to summarise and collate the contributions of the expert panel into Microsoft Word 2007 documents. These summaries were returned to the panel members to seek agreement that they accurately represented their contributions. This process was undertaken throughout Study 2 and culminated in a final document approved by the panel as representative of their combined contributions. The findings and process of analysis is described in detail in Chapter 5 (Study 2 – Expert opinion of good practice O&M for older people).

The data captured during Study 3 comprised digital recordings of telephone interviews. Each of these was transcribed verbatim into Microsoft Word 2007 documents and transferred to QSR NVivo 10 qualitative analysis software. Explanation and descriptions of the coding process, categories and themes are considered in detail in Chapter 6 (Study 3 – rehabilitation workers’ experiences of delivering O&M training to older visually impaired people).

## **RESEARCH ETHICS**

According to Oliver (2011) the researcher’s moral and ethical compass should strive to balance the ‘intrinsic’ with the ‘instrumental’ good of acquiring knowledge. In this case,

balancing the intrinsic aim of directly improving services to visually impaired people, with the informing of training providers to enable them (instruments) to develop and improve the focus and relevance of their courses. This was particularly pertinent in the case of the researcher, whose ulterior motives could be based on improving the market share of the rehabilitation worker training course in which he was engaged. In managing this, as a student of the University of Birmingham School of Education, scrutiny of the research processes employed for each of the three studies presented herein, and guidance and support on the implementation of ethical standards was received through the supervision process.

Furthermore, throughout the period of doctoral study the author's ethical conduct was informed by membership of the British Psychological Society (BPS). Their framework of "moral principles guiding research from its inception through to completion and publication of results" (BPS, 2010, p.5) formed the basis of the research decision-making process by providing values based on a respect for the rights and dignity of all those involved in the research programme and an integrity to produce valid and credible results.

During the data collection phases (2007–2011) of the three studies presented in this thesis, the University of Birmingham required ethical considerations of postgraduate research programmes using the EC2 form. This supervisory process was undertaken in 2007 and 2010 (Appendix 2), during which time informed consent, confidentiality, anonymity, security and data management were considered in detail. Approval to proceed was agreed through the process of supervision (as per University guidelines) and the decision made that further ethical approval was not required.

### **Study 1 Ethical framework**

Through supervision consultation prior to contacting the proposed participants of Study 1, it was considered that the production of the EC2 form would facilitate ethical monitoring of researcher conduct, roles and responsibilities, risk, law and good practice (DoH, 2005).

Study 1 commenced with potential participants being contacted in the first instance by telephone. This informal invitation to undertake the survey included a verbal explanation of the research focus; the intended commitment and proposed timescale; and the researcher's finding of a potential lack of research in the field of rehabilitation and recognition of the value of their experienced professional point of view. Those who expressed an interest were then issued with a participant brief, describing the researcher as a student at the University of Birmingham and the aim of the project: to explore rehabilitation worker training, practice and professional development, in particular how the O&M techniques they learnt in training are interpreted, adapted and used in practice along with the factors relevant to effective interpretation of academic instruction and continued professional development from novice to expert. Furthermore the brief provided clarification of the required commitment, interview timescale and process. The prospective participants who replied voluntarily to the e-mail invitation were asked to confirm their consent verbally at the beginning of the recorded interview.

### **Study 2 Ethical framework**

Prior to commencing Study 2, the ethical considerations of a Delphi survey were scrutinised during the supervision process. It was considered that the positions, experience of lecturing, research and access to literature of the participants was sufficient to allow ethical monitoring of the process to be contained at a supervisory level.

The proposed members of the expert panel required for the Study 2 Delphi survey consisted of faculty members from a number of universities that deliver rehabilitation worker training programmes, employees of a limited company that also delivers rehabilitation worker training programmes and a self-employed professional with experience of working on these training programmes. Contacted in the first instance by telephone, the candidates were provided with a verbal description of the proposed study; the commitment and process required for a Delphi study and the opportunity they would have to contribute their expert knowledge to the development of the rehabilitation profession. Following verbal consent to contribute, an e-mail invitation accompanied by a participant brief was distributed. This brief provided an explanation of the researcher's student status with the University of Birmingham; the researcher's aim to identify best working practice in relation to 'typical' adult clients (i.e. older people); and the proposed benefits of contribution to both the community of practising professionals and those providing training to rehabilitation workers. The brief went on to provide a description of the Delphi process, the commitment required from the participants and the intention to manage confidentiality. Voluntary consent from the participants was secured by requesting that interested parties complete and return a general information questionnaire.

### **Study 3 Ethical framework**

The final of the three studies presented in this thesis aimed to recruit a number of rehabilitation workers from across the UK, some of whom may be working within the statutory social care sector. In cases such as this there is the option to submit a request for the programme to be reviewed against the Governance Framework for Health and Social Care (DoH, 2005). The focus of the study was the specialism of O&M and was anticipated to be a small sample based on the following points:

- The small number of practising professionals: within the range 378 in England (RNIB, 2013d) and between 450 (Rehabworker, 2008) and 650 (The future of Rehab meeting, 2012) across the UK.
- The dearth of literature on the subject of rehabilitation – as identified in Chapter 2, the Literature Review – may suggest there was a limited research culture within the field of vision rehabilitation.
- The need for the participants to be motivated by their interest in the specifics of older people and O&M and not recruited through an employer.

Accordingly it was considered that the completion of an EC2 form (Appendix 2) and the supervision process would inform the ethical implications of the research programme.

To maximise the potential of reaching as many practising rehabilitation worker professionals as possible, the participant selection process for this study began with the placing of an open invitation (Appendix 3) in the magazine NB. This professional issues magazine, considered by many rehabilitation workers as a trade magazine, is published by the RNIB and has been “supporting and informing professionals working with blind and partially sighted people since 1917” (RNIB, 2013c). In addition, this advertisement was sent to [www.rehabworker.co.uk](http://www.rehabworker.co.uk), a website providing a forum for vision rehabilitation professional issues since 2006, (Rehabworker, 2008) to be posted on the website and distributed to their mailing list of approximately 450 professionals. Furthermore, it was sent to the then representative body for rehabilitation workers, the Social Care Association (SCA) to be issued to all their members. The advertisement was also sent for distribution to a number of rehabilitation worker forums around the UK. This invitation provided details of the researcher’s relationship to the University of Birmingham; an explanation of the opportunity for participants to share

experiences and to contribute to the development of the knowledge base of real life O&M intervention; and the commitment required for participation. Finally the invitation requested that those interested in participating make contact by e-mail.

Upon receipt of an expression of interest, the proposed participant was issued with a participant brief, providing further details of the aim of the study and the commitment required.

### **Confidentiality within the three studies**

All research participants should expect that the information they provide during the course of their contribution should be treated as confidential and their anonymity guaranteed (BPS, 2010). With limited research being undertaken in the field of rehabilitation and an emergent research culture, this essential ‘gate keeper’ responsibility is contextualised as a tool to serve “the agenda of emancipatory research by empowering those participating in research” (Skovdal and Abebe, 2012, p.81). Consequently, prior to undertaking any of the research activities each of the participants received the briefing document containing a statement of intent to protect their identity during the project and in the publication of results; in addition, they were informed of their right to withdraw at any time without prejudice. This document was used to clarify that the data would only be used for the purpose of the research project and that it would be stored electronically. In compliance with the Data Protection Act (1998), the digital recordings for Study 1 and 3 were coded (known only to the researcher) and stored electronically by the researcher. Furthermore, a hierarchical coding system was used which, whilst allowing the researcher to maintain the integrity of the data, isolated the locations of the interviews for Study 1 and the employers of the participants undertaking telephone interviews for Study 2 from the participant responses. The Delphi method utilised in Study 2



presented identifiable word processed data. In this instance the data was once again coded and stored securely and, as a recognised element of the Delphi method, the participant data was anonymised and summarised by the researcher for agreement by the panel thus creating a distance and barrier to the identification of the panel members.

## **REPORTING PROTOCOL**

The selection of a purposive sample reflects that the research design places the individual participant's perspective at the centre of the research, and is not expected to represent the general population (Skulmoski *et al*, 2007). This proposition is upheld in the adopted approach to reporting, with each participant's contribution considered equally valid and objectively reported with merit. To aid the reader's understanding of the individuality of the contributions and the relationship between the observations, participants have been numerically coded in each of the studies. In Study 1 participants are represented as RW1 to RW17; in Study 2 participants are represented a EX1 to EX5 and Study 3 participants are numbered RW1 to RW29. In contrast to this individuality, analysis of the data has produced a number of common perspectives and themes. In order to present these in a logical manner, a method of representing the quantifiable data has been employed. Adapted from the quantifiers utilised by Pavey (2011), the participant multiples in this report will be presented as: 1 participant as *singular*, 2 or more as *a few*, 5 or more as *some*, 10 or more as *many*, 20 or more as *most* and all of the participants as *all*.

## **EMBEDDING THE RESEARCH QUESTIONS WITHIN AND EMERGENT DESIGN**

Adopting an emergent design philosophy facilitated a responsive and relevant focus whilst allowing the logistical implications of a self-funded study to be controlled. The three studies commenced with an appreciation of a possible lack of empirical evidence. Study 1 explored

the rehabilitation worker's experience and conceptualisation of professional practice, aiming to answer the question: In what ways do rehabilitation workers think their training aligns with their professional practice and their clients' needs? The application, values and implications of the face-to-face interview method used for this survey is contextualised effectively and considered in detail in Chapter 4 (Study 1 – Exploring rehabilitation workers' opinions of the relevance of their training to their practice and the needs of their clients).

Based on the findings of Study 1, expert opinion was solicited on rehabilitative strategies delivered to older people. This study aimed to answer the broad question: How do experts define good practice in relation to O&M training with older visually impaired people?

Generating a consensus of opinion on a range of good practice themes, further details of the Delphi survey, management of the process and the value of utilising this method is discussed in detail in Chapter 5 (Study 2 – Expert opinion of good practice O&M for older visually impaired people).

Finally, Study 3 responded to the findings of Study 2. Aiming to capture the rehabilitation workers' experience of practice and how they have adapted this to meet the needs of the visually impaired people they work with, this study's focus was to seek answers to the question: How does a rehabilitation worker's experience of practice align with the good practice defined by experts? The application of the method, the implications of each telephone interview procedure and the values employed in this study are discussed in detail in Chapter 6 (Study 3 – Rehabilitation workers' practical experiences of delivering O&M training to older visually impaired people).

## CONCLUSION

This chapter explored the methodological perspective of the thesis and how it influenced the choice of the flexible design methods used to capture data in the three sequential studies presented in this thesis.

These generative methods were chosen to explore the practising rehabilitation worker's experience of delivering services to visually impaired people, particularly to discover the relevance of the O&M training delivered during rehabilitation worker training to their predominant client group of older people. It is intended that these findings will form the basis of feedback to the providers of training to develop their training programmes and to practising rehabilitation workers for individual professional development.

How the properties of emergent flexible designs lend themselves to a grounded approach to data analysis is discussed in this chapter, as are the ethical considerations, the process of monitoring and recognition of the researcher's subjectivity. The identification and validation of categories and themes is considered in detail in each of the following three chapters to help the reader contextualise the details of the individual processes of data analysis.

## **CHAPTER 4: STUDY 1**

### **EXPLORING REHABILITATION WORKERS' OPINIONS OF THE RELEVANCE OF THEIR TRAINING TO THEIR PRACTICE AND THE NEEDS OF THEIR CLIENTS**

#### **CHAPTER OVERVIEW**

This chapter describes in detail the data collection and findings of Study 1 – Exploring rehabilitation workers' opinions of the relevance of their training to their practice and the needs of their clients. This study was exploratory in nature; therefore, the data captured during this study is presented in detail to offer an understanding of the findings and how these influenced the focus of further study.

The findings of an initial literature search in 2006, as described in Chapter 2, suggested that there was a potential lack of empirical research into the relevance of the rehabilitation worker's training in meeting the needs of their clients. Therefore, a flexible study was developed to explore the practice of the rehabilitation worker delivering services to visually impaired people in the UK. Investigating their experiences and opinions of the relevance and effectiveness of the rehabilitative strategies they employ, this study focussed on O&M, a rehabilitative strategy considered a specialism of the rehabilitation worker profession.

Employing a semi-structured interview schedule, 17 face-to-face interviews were undertaken with a convenience sample of practising rehabilitation workers recruited – for their geographic closeness to the researcher – in London and the south east of England. Analysis of the data gathered during these interviews identified:

- the complexity of the relationship between the rehabilitation worker's theoretical underpinning knowledge and their working practice;
- experiences of interpreting theory into practice; and

- processes of validation of the effectiveness of service delivery for the predominantly autonomous ‘lone worker’ situation of the rehabilitation worker.

The findings of this research programme, presented in the BJVI research report ‘From novice to expert: an investigation into the professional development of rehabilitation workers through a study of practice in technical rehabilitation interventions’ (Dodgson and McCall, 2009) (see Appendix 1), suggested that rehabilitation worker training was of a high standard but that there was a potential gap emerging between the relevance of the prevocational training and professional practice. The key recommendation that evolved from the analysis of the data was the need to expand the research on this subject to gain an understanding of the O&M training delivered by rehabilitation workers to their predominant client group of older people.

The chapter concludes with a reflection upon the data gathered and the adoption of the key recommendation, as described above, as a foundation for the development of the aim and focus of Study 2 – Expert opinion of good practice O&M for older people, presented in Chapter 5 of this thesis.

## **RESEARCH AIM**

As discussed in Chapter 2, the Literature Review, the initial literature search (in 2006) of common and specialist databases used the key words, orientation; mobility; expert; novice; rehabilitation; blind; partially sighted; visual impairment and older people. Uncovering Franks’ (2000) empirical and aptly titled ‘Study of Practitioners’ Perspectives on Rehabilitation Work with Blind and Partially Sighted People in the UK’ proved to be unique in its interest in this field. Offering an insight into the development of the rehabilitation worker’s role and the range of their working practices, Franks (2000) makes the following salient observations:

- “no published research exists offering a detailed and systematic mapping of the impact of a range of technical rehabilitation skills on the lives of older blind and partially sighted people” (p.208).
- Training agencies and practitioners need to “understand clearly why they are providing what they are providing, whether indeed this is what they should be providing and whether they might provide other ways”. (p.209)

She therefore goes on to recommend:

- An extensive study focussing on older people.
- A dedicated study considering work with visually impaired children.
- A study into the use and non-use of specialist adaptive equipment such as maps and access technology.

The relative dearth of literature on the subject of rehabilitation (described in Chapter 2, the Literature Review), combined with Franks’ (2000) recommendations above, provided the momentum for an exploratory study into the rehabilitation worker’s experiences of their work. In addition, this approach was considered an appropriate focus to offer an opportunity to establish the relevance and suitability of further research in this area.

This study aimed to investigate the rehabilitation worker’s:

- 1) experience of practice;
- 2) opinions on the relevance of their training in meeting the needs of their clients; and

- 3) professional development from novice to expert, in terms of what experiences are required to develop intuitive and responsive models of practice.

## **RESEARCH QUESTION**

Rehabilitation workers provide a range of support, advice and training services to people with congenital and acquired visual impairments. The scope of this range is demonstrated by the breadth of curriculum subjects (social studies/client assessment, the eye and low vision/audiology, communications, independent living skills, orientation and mobility, teaching and learning, counselling skills/interpersonal skills, management/leisure and recreation, multiple disability/dual sensory loss) delivered on the University of Birmingham accredited Dip HE in Rehabilitation Studies circa 2004 (Villeneuve-Smith, 2002, p.13). Building a foundation of evidence around such a range of subjects is formidable; therefore, O&M was chosen as one of the “long established skills” (Franks, 2000, p.206) of the rehabilitation worker, considered to be a particular specialism of the profession.

There is little evidence available to map the origins of O&M techniques for visually impaired people, unlike, for example, sighted guide, diagonal cane technique and mental mapping (see Chapter 2, the Literature Review). In contrast, the source of the long (white) cane, two-point touch technique is well-documented by authors including Blasch *et al* (1997), Dodds and Howarth (1995), Weiner *et al* (2010) and Thornton (1968). Originally developed for use by war-blinded veterans (Wiener and Siffermann, 1997; Bledsoe, 1997; Miyagawa 1999), this technique (see Chapter 2) has been taught during O&M instructor training, and latterly rehabilitation worker training, since the mid-1960s.

With this in mind the generative focus of this study was to explore the application and relevance of the long white cane two-point touch technique as an aid to travel for visually

impaired people in the UK. Seeking to answer the question: In what ways do rehabilitation workers think their training aligns with their professional practice and the needs of their clients?, this study aimed to investigate:

- 1) The relevance of O&M theory to practice.
- 2) What types of O&M are delivered in rehabilitation worker practice.
- 3) How the techniques of using the long white cane are implemented in practice.
- 4) How the rehabilitation worker measures the quality of their work.
- 5) What professional development opportunities are available to the rehabilitation worker.

To address these broad domains, focus topics were identified from which the research schedule was developed (see Appendix 4):

- Overview – details of the numbers of visually impaired people the rehabilitation worker delivers interventions to, including: demographics and types of O&M delivered.
- Relating O&M theory to practice – considering the relevance and suitability of classical techniques to the needs of people with a visual impairment.
- Adaptation of long cane techniques – to establish the consistency of training and the extent of adaptations required for the effective application of practice.
- O&M practice – considering the worker's confidence in their practice and what value for professional development they place on their experiences.



- Measurement of quality – reflecting upon the rehabilitation worker’s performance and what they use to measure their effectiveness.
- Professional development – exploring the opportunities available to the rehabilitation worker for professional development.
- Training and development – considering the relevance of the rehabilitation worker’s requisite training and how this influences their confidence in their practice.

## **METHOD**

With little foundation upon which a confident hypothesis on how the rehabilitation worker interprets and adapts their training to suit their practice requirements could be formed, it was important for the design of the survey to be exploratory, to emerge as the research progressed and for it to be flexible throughout the whole process (Robson, 2011). In addition it was important for this process to offer the participant freedom to express what was important to them and have the “capacity to constitute compelling arguments about *how things work in particular contexts*” (Mason, 2006, p.1).

Basing a study on the broad theme of O&M presented a number of challenges. It was important for the researcher that the findings of the study would be of value to the field of rehabilitation, to practitioners and training providers. Therefore, “allowing the respondents to say what they think and to do so with greater richness and spontaneity” (Oppenheim, 2005, p.81) was considered paramount to the investigation. However, as argued by Foddy (2001), participant memory is predisposed to the effects of time and salience. With the “received wisdom...[being]...that face-to-face interviews are the preferred option in survey and qualitative research” (Charles, 2011, p.27), an interview schedule – based around each of the

seven themes mentioned earlier (Appendix 4) – was constructed to facilitate discussion, aid memory recall and offer the opportunity for non-verbal communication to help establish rapport (*ibid*).

Although this method of interview was specifically adopted to enable the interviewer to interact with the participant in order to increase the salience of the discussion and expose the contextual data (Cohen *et al*, 2007, Mason, 2006, Robson, 2002), it is important to recognise the opportunity for researcher influence. Reactivity of this kind is managed, as argued by Maxwell (1996), by not attempting to eliminate the influence “but to understand it and to use it productively” (p.91). As described in Chapter 1 and Chapter 3, the researcher and author of this thesis was a practising rehabilitation worker and an experienced interviewer; therefore, the reflexivity, “awareness of the ways in which the researcher as an individual with a particular social identity and background has an impact on the research process” (Robson, 2002, p.172), was embraced to offer clarification, support and conceptualisation to the participant throughout the interview process.

To furthermore manage the influence of the researcher, all interviews were undertaken within the participant’s workplace and were digitally recorded. Whilst this latter process is in contrast to Glaser and Strauss’ advice to allow the “cream ... [to] ... rise to the top, and stick in the investigators mind” (Noerager Stern, 2011, p.118) the benefit this process offers for data integrity was of particular importance to an exploratory study by a novice researcher.

### **The interview procedure**

To “equalise the power relationship ... [and] ... to democratize the process to the extent that we can and to ensure that there is no exploitation” (Bannister *et al*, 2002, p.154), the participants were presented with a complete knowledge of the research focus in the form of a

participant brief (Appendix 4.1). This was accompanied by a letter revealing the researcher's position as a student of the University of Birmingham (Appendix 4.2). Initially an overview of the focus and intention of the study was provided by e-mail as part of the invitation to participate; this was verbally repeated during the subsequent telephone contact and repeated again immediately prior to the face-to-face interview. This briefing explained that each interview would be on average one hour in duration and consist of an introduction, the interview and a consolidation opportunity for 'off the record' discussions. In addition to the conceptual details of the study, the participant brief provided an opportunity for the development (through discussion) of a positive research relationship that offered a balance of openness and critical reflection (Maxwell, 1996). As mentioned above, all of these interviews were digitally recorded, coded (known only to the researcher) and electronically transferred for computer storage and transcription prior to analysis.

### **The development of an O&M video**

The development and strategies of the O&M long white cane two-point touch technique have been well documented by authors including Blasch *et al.*, (1997) Jacobson (2008), Miyagawa (1999) and Hill and Ponder (1976). Although the descriptions provided by these authors are remarkably similar, their existence is not a guarantee that rehabilitation worker training across providers (BCU, Guide Dogs, Provision Solutions etc.) is consistent in delivery. Indeed, as Franks (2000) observed and which sheds doubt over the consistency of the requisite knowledge attained during rehabilitation worker training, the development of rehabilitation worker courses has not been subject to standardisation.

In light of this and to establish a firm foundation of a consensus of opinion that was coherent across the interviews and from which discussions could progress, a video demonstrating the

classical two-point touch technique was developed. This video depicted the researcher demonstrating the long white cane two-point touch technique and was accompanied by a narrative taken from what Blasch *et al* (1997), Fazzi and Petersmeyer (2001) and Jacobson (2008) report as the seminal description of this technique: Hill and Ponder's (1976) publication, 'Orientation and Mobility Techniques A Guide for the Practitioner'. This video lasting one minute 40 seconds was played to each participant prior to the focus topic entitled adaptation of long cane techniques and contained the following narrative:

- The cane grip rests in the midline of the base of the palm with the back of the hand facing laterally.
- The index finger is extended downward along the flat side of the grip.
- The thumb is positioned over and around the grip with the remaining fingers flexed around the bottom of the grip.
- The wrist should be centred at the cardinal midsagittal plane (body midline) of the body, and out from the body at a point where the arm-cane combination forms a straight line.
- Wrist movement is the act of flexion, extension, hyperextension and the return to flexion.
- Utilising the proper wrist movement the cane tip is moved to a point contacting the ground one inch beyond each shoulder.
- At the apex of the arc, the cane tip is one inch above the ground.

- The student moves in a rhythmic manner so that the cane tip and the heel of the opposite foot contact the walking surface in unison.

(Hill and Ponder, 1976)

### **Participant selection**

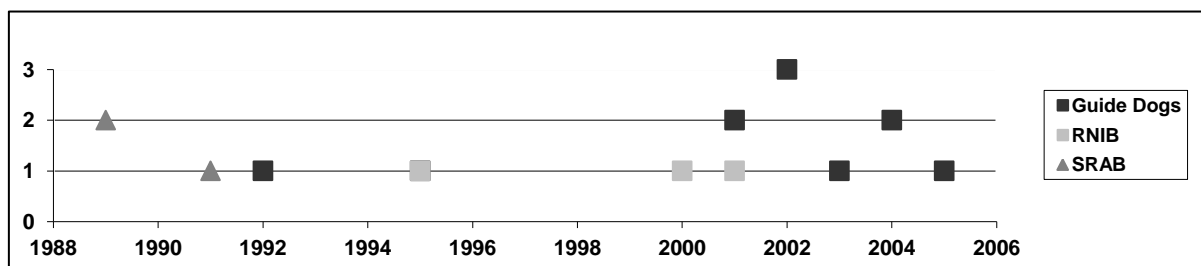
Rehabilitation workers are employed by statutory and voluntary organisations (social services and charities). As discussed previously, there is uncertainty over the population of rehabilitation workers with estimates ranging from 378 in England (RNIB, 2013d) and 450 (Rehabworker, 2008) to 650 (The future of Rehab meeting, 2012) across the UK. These professionals are not currently required to be registered, licensed or members of a professional body in order to practice (Pavey, 2011; Franks, 2000) and are likely to be spread across the UK. Consequently, when coupled with limited resources (of a self-funded study) and the exploratory drive to “identify the scope, major components, and trajectory of the overall process” (Morse, 2011, p.235) the execution of face-to-face interviews was considered to be a challenge. For that reason a convenience sampling process was adopted where the geographically nearest practising professions to the researcher were contacted for recruitment. Although this sampling method offers limited generalisability, it is important to note that, as argued by Cohen *et al* (2007), this is an irrelevance as the sample “does not represent any group apart from itself” (p.144). In this case the study sought to explore the subject of O&M and identify the relevance of undertaking further studies.

Twenty practising rehabilitation workers were contacted directly by the researcher, of whom 17 agreed to participate in the study; all of these were located in London and the south east of England.

Fourteen of the participants were employed full time within the statutory sector (social services) and three within a national charitable organisation delivering services to visually impaired people (voluntary sector). All participants had the full cooperation of their line managers to take part in the study.

The participants of this study undertook their training in rehabilitation studies/work between 1989 and 2005. They all held a certificate or Dip HE level qualifications awarded by Guide Dogs (University of Birmingham), BCU/UCB or Southern Regional Association for the Blind (see Figure 1).

Nine were male and eight female with ages ranging from 28 to 60.



**Figure 1: Study 1 – Qualification timeline of participants**

### Reporting protocol

As discussed in Chapter 3, Methodology, the flexible nature of this exploratory study places an emphasis on the importance of the individual's perspective. To ensure this is managed effectively and to aid the reader of this thesis, the participants of the survey have been numbered from RW1 to RW17. In addition, the quotes of the participants are used to illustrate the common themes identified. To present these in a logical manner the following quantifiers are used: 1 participant singular, 2 or more as 'a few', 5 or more as 'some', 10 or more as 'many', 20 or more as 'most' and all of the participants as 'all' (adapted from Pavey, 2011).

## **RESULTS**

Following each of the interviews, the data was transcribed verbatim and processed through the QSR qualitative analysis tool NVivo 8. Using each of the questions to categorise the participant responses, the accumulated data was then reviewed to identify the common themes that permeate the category. It was considered important that the data captured during this survey should be presented in detail, to offer the reader an opportunity to contextualise the focus, administration and findings of the subsequent studies (presented in this thesis).

### **Overview of background and current situation**

#### **What motivated you to become a RW?**

The ‘Birmingham Study’ of Franks (2000) describes in detail the evolution of the rehabilitation profession. This account exposes the isolation in which this specialist profession has evolved and in which the rehabilitative techniques have remained consistent and aloof from external influence. Likewise, there appears to be a gap in understanding the value of rehabilitation intervention (see Chapter 2). Therefore, in order to understand how the rehabilitation worker develops their professional practice it was considered important to gather information about the participants’ core motivators for entering the profession.

#### **Experience**

The results suggested that both professional (working in the care sector) and personal experiences (of visual impairment) may motivate people to train as rehabilitation workers.

#### **Working in the care sector**

Ten of the participants reported that their motivation to train as a rehabilitation worker came from their experiences of being employed by organisations that supported vulnerable people (social care or charitable sector). Two examples of this came from RW12 and RW14.

RW12's experience of the sector came from working in an administrative role for a society for the blind before undertaking their rehabilitation worker training, and RW14 had worked in the voluntary sector as a home visitor and latterly covered a rehabilitation worker's maternity leave within social services before being offered a bursary incentive for training by her employer.

### **Personal Experience**

Six of the participants reported that their motivation to become a rehabilitation worker was associated with their personal experience of visual impairment. An example of this was provided by RW15 who stated:

...I have 2 uncles who are deaf blind and when I completed my degree in psychology I worked as a counsellor for people who are partially sighted and blind ... (RW15)

In addition to this, three of the participants reported that they wanted a rewarding profession.

One example that encapsulates this perspective was provided by RW1 who stated:

...I have always been a people person; I like people I like listening to people; I like talking to people, and I like the feeling that I have helped someone in some way... (RW1)

### **How would you describe your current main environment of work?**

Experience offers "nuances, qualitative differences, and confounding problems ... it is this learning about exceptions and shades of meaning that only concrete experience can provide" (Benner, 2001, p.178). For the rehabilitation worker these nuances and experiences can include the socioeconomic environment in which they work and the demographics of their client group. All of the participants taking part in the research were employed full time, 14 in the statutory sector (social services) and three in the voluntary sector (national charity).



The interpretation of this question led participants to predominantly describe the environment in which they work in terms of generalised environmental categories, such as ‘inner city’ or ‘rural’.

### **Environmental descriptions**

Five of the participants described their working environment as either ‘inner city’, ‘very busy’ or ‘complex’. The value for professional development of working in a multifaceted environment was described by one participant (RW5) who, when referring to the variety of experiences of culture they had experienced said:

...now I have worked here for two years [I] feel I can work anywhere ...

Eight of the participants reported that the environment they work in was ‘rural’; ‘semi-rural’; or ‘outer city’. In a similar fashion to the participants working in the inner city, they also commented on the complexity of the environment. An example of this was provided by one participant who reported the range of characteristics presented by the environment they worked in as:

...rich areas, touristy areas and horrible blocks of flats... (RW1)

Six of the participants (three of whom also included an overarching term of ‘city’ or ‘rural’) chose to describe the type of service they provide. One example of this was provided by RW13 who said:

...registrations, rehab, low vision assessments – not allowed to teach Braille ...

### **What is the predominant client group demographic in your location?**

The long white cane technique of two-point touch was developed for use by hospitalised war-blinded servicemen (Blasch *et al*, 1997; Thornton, 1968; Miyagawa, 1999). This client group has a number of characteristics that can be associated with the seven components of the

technique (Penrod, 2012) and are not common in the UK visually impaired community. These may include an institutionalised commitment to rehabilitation; an almost automatic ‘marching’ rhythm; an appreciation of the value of good posture; and an unquestioning acceptance of the physical positions required for the technique. Therefore, to contextualise the rationale for adapted practice, the demographics of the ‘common’ client group were gathered.

Nine of the participants described the majority of their client group as in the age ranges of over 60 or 70 years of age, using terms such as “older people” (RW8) or “over 65” (RW6). In addition to this description, seven of the participants stated that age related (macular degeneration) sight loss was a feature of the majority of their client group.

Ten of the participants included in their reports of their predominant client group, descriptions of the culture or social diversity. Examples of these descriptions included:

... late seventies – female, older people. MD, white, affluent ... (RW 14)

... some Asian, some black people, Turkish and Eastern European ... (RW6)

In contrast, two of the participants reported that they were unable to identify a typical or average client. One of these, who also emphasised the cultural diversity they experience within their working location, stated that:

... the typical rehab client [that is] over 65 with macular degeneration and just wants a little help, and wants a liquid level indicator is in reality uncommon ... (RW6)

### **How many O&M clients do you have on average per year?**

With the vast majority of rehabilitation workers (74%) delivering O&M training (Franks, 2000), it is clearly a major domain of their working practice. However, the discipline of O&M is broad and participants expressed confusion over the focus of the questions asked. The term O&M encompasses a range of techniques and strategies, including the use of white canes,

sighted guide and route orientation so they were unsure about the type of training that was in question. With clarification provided by the researcher, the participants were able to accept the question in its broadest sense and encapsulate all of the elements of O&M. The number of clients reported by the participants requiring O&M input per year ranged from one to 70. The highest number of responses (n=5) indicated that the participant had 10 O&M clients per year (see Table 1)

**Table 1: Number of clients requiring O&M input per year**

Number of O&M clients per year	Responses
70	1
35–40	1
30	1
20–30	1
24	1
20	3
15–20	1
15	1
10	5
1–5	1
1	1

#### **What types of O&M do you teach in general?**

The range of techniques and skills covered by the umbrella term O&M was highlighted again by participants who listed a number of techniques (see Table 2) when asked what the types of O&M they generally teach. The most commonly reported technique was long white cane training with 14 participants including this in their discussion. Orientation training was the second most commonly reported activity with eight participants including this as one of the types of O&M they generally teach.

**Table 2: Types of O&M training delivered by RW's**

O&M Technique	Responses
Long Cane	14
Trailing	1
Guide Cane	5

Orientation (indoor and outdoor)	8
Avoiding Obstacles	1
Indoor Routes	1
Low Vision	2
Sighted Guide	2
Symbol Cane	4
Confidence Building	1
Road Crossing	1
Mobility Assessment	1
Walking Stick	2

An example of the range delivered was given by one participant who described the O&M training they generally deliver as:

... symbol cane, guide canes and rarely long canes ... confidence building on routes they know ... (RW3)

### **Relating O&M theory to practice**

Working closely with people requires a practical knowledge of complex social relationships. These relationships are predominantly contextual and as a result the features and experiences are often known only to the professional (Benner and Benner, 1999). In order to understand the factors that are important to effective delivery of skills-based O&M, it was important to examine the rehabilitation worker's experiences of relating their training to the reality of practice.

### **Looking back – was your training in O&M easy to apply in practice?**

The researcher's experience of rehabilitation worker training (described in Chapter 2) suggested that it has changed little over the years (1994–2006). The value of this consistency was uncertain; therefore, it was important to establish whether the training the participants had received was in their experience applicable to their practice.

Fourteen of the participants answered positively, reporting that the O&M training they received was easy to apply in practice. Eight of them responded with a definitive 'yes', whilst other positive responses included:

...generally it was. We did a lot of practical work at the school... (RW3)

...absolutely cannot fault the instruction at college we did loads... (RW8)

...long cane technique was. Others were not... (RW6)

In contrast to these responses three participants responded negatively; two of them stated 'no', and the third stated that it was:

...not really easy to apply, I didn't feel really equipped... (RW4)

These three participants clarified their perspective, explaining why they did not think that their training in O&M was easy to apply in practice:

...because people are so varied in what they need to learn... (RW5)

...I didn't feel very confident about mobility I knew basically what I had to do; what I didn't have was the ways and techniques... (RW4)

...we all left thinking that was all it was. Two-point touch under blindfold. Not a bad thing but restriction to that one was the problem... (RW10)

Three participants reflected on the training they received and commented on the level and content of instruction on their course, suggesting that the training was thorough. In particular they highlighted the practical aspect of their training as beneficial. One participant explained this by saying:

...we did a lot of practical work at the school, that was helpful and a good grounding... (RW3)

In contrast to this perspective two of the participants reported the difference they experienced between the theory of O&M covered during their training and the practical application of the techniques, stating:

...I think the training gave us the full-on textbook knowledge which made us come out confident... (RW1).

...textbook is fine in the book but everywhere and every environment is different, every person is different... (RW10)

**Were the techniques ‘fit for purpose’ without adaptation or did you need to change them?**

Fifteen of the participants reported that the O&M techniques they were taught during their training were fit for purpose when delivered to those clients with attributes similar to those for whom the classical cane techniques were originally developed (see Chapter 2). In addition, 12 of these participants elaborated on their response, highlighting the importance for the practitioner to respond to the client’s needs when applying the techniques. Two reports that exemplify this perspective were:

...we were taught to teach different ways; the client is not going to fit in the perfect mobility box, we adapted it. The basics are fit for purpose as long as they are considered as basic and you vary them to fit the need... (RW13)

...you had to be prepared to adapt and use your own strategies, thinking through and planning, look further than what the training provided for you... (RW16)

**What aspects of your training in O&M have you never applied in practice?**

Nine of the participants were able to identify specific techniques that they were taught during their training that they have never applied in practice. These were the long (white) cane techniques of two-point touch, three-point touch and touch and drag; the indoor mobility techniques of taking a line and pre-cane skills; the adapted travel techniques required for rural travel; and the application of the following mobility aids: the Hoople, guide cane, electronic mobility aids and tactile maps.

In contrast to those who identified the above techniques they had not had the opportunity to apply in practice, six of the participants reported that they have used all of the techniques they were taught; two examples of these reports are:

...I think I have used them all, there is nothing that I would say is a complete waste of time and didn't work at all... (RW16)

...everything has been useful even if I haven't taught it exactly...everything has been useful... (RW1)

In addition to these reports, three of the participants particularly focussed on the teaching processes they had been introduced to during their training, rather than the techniques themselves. One summed up these feelings stating that they do teach the seven elements of two-point touch, but not as the individual elements were taught to them. Rationalising this they went on to say that the training they received:

...was [focussed] around people who are totally blind – training with a sleep shade on and it's not always relevant because [the majority of] people have some vision... (RW5)

Another of these participants, when referring to the application of the teaching methods, said they had:

...never use[d] the process of starting with pre-cane skills and then on towards outdoor travel...you can start with long cane... (RW6)

**Have you been able to expand your O&M knowledge, understanding and skills since you trained?**

Fourteen of the participants reported that they had not had the opportunity to attend any formal second level training on the subject of O&M following their initial training.

Interestingly, the participants responses were divided when they discussed what workplace activities they consider were valuable to their professional development. Six of the

participants reported that their working activities alone offered them the opportunity to develop. An example of this was provided by one participant who said:

...when you work with people sometimes you have to make it up as you go along. Expanded knowledge through trial and error – not theoretically...  
(RW1)

In contrast to this perspective, six of the participants identified their interaction with colleagues as opportunities to develop their knowledge. This was reported by RW9 who said that they:

...talk to colleagues when problems occur when training clients –  
experientially someone will have come up with something similar...

### **Adaptation of long cane techniques**

The rehabilitation worker is expected to deliver training in a range of environments to a diverse client group. In doing so it is likely they will encounter individual, specific biopsychosocial characteristics, which will require them to adapt their practice in order to meet their client's needs. This "ability to make more subtle and refined discriminations is what distinguishes the expert from the proficient performer" (Dreyfus and Dreyfus, 2005, p.787).

In order to establish the consistency of the rehabilitation worker training prior to identifying how and why they make adaptations, the participants were shown a short narrated video of the classic seven elements of the long white cane two-point touch technique. The demonstrated techniques and narration were based on the descriptions provide by Hill and Ponder (1976) in their publication 'Orientation and Mobility Techniques: A Guide for the Practitioner'.



**Was this how two-point touch was taught to you?**

All of the participants (n=17) confirmed that the techniques they were shown on the video were the long white cane two-point touch techniques they were taught during their research worker training. A demonstration of the level of similarity was provided by three of the participants who reported that the techniques were:

...exactly... (RW15, 16) or ... Very precise just like that... (RW12).

Although there was consensus that the techniques delivered on the video were the same as those delivered during their training, eight of the participants reported that the terminology used for the narration was different from that they had experienced.

**Do you insist that all of your clients adopt all of these techniques?**

Even though participants responded to this question in a variety of ways, the underlining theme in the reports of 10 of the participants was that they did not insist that their clients adopt the techniques to the extent that they were taught them.

In contrast, seven of the participants stated that they did insist that the participants adopted the two-point touch technique in its classical form. What is particularly interesting is that all of the participants (n=17) reported that when starting a long cane training programme with a client they commenced by teaching the classical techniques. This is similar to the teaching strategies of Sauerburger and Bourquin (2010): they extol the importance of accuracy in the delivery of the classical techniques, stating that “In the first stage of learning to use a cane, the student learns the mechanics of moving it correctly” (p.206). From this starting point they go on to adapt the techniques to suit the client’s abilities and requirements.

The reasons for adaptation proposed by the participants fell into two broad categories, ‘environmental’ and ‘client led’. One example of an adaptation made to suit the environment was:

...road crossing as generally requiring some kind of adaptation all the time because they are always different... (RW4)

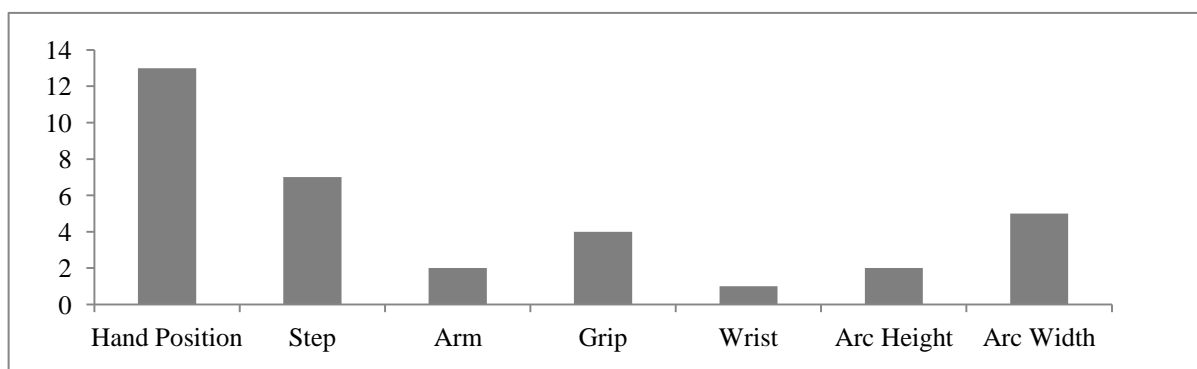
An example of an adaption made to suit the client was:

...no clients keep their hands in the middle...[I]... show them where it is supposed to be but after a couple of strides its back to where it was. It’s not a natural position. But as long as the body is covered it’s ok. Some people are just not going to do it. As long as it’s safe it’s ok... (RW7)

### **How do you adapt these techniques?**

All of the participants (n=17) reported that they adapt a number of elements of the two-point touch technique in practice (see Figure 2). The hand position was the technique that was most commonly adapted with the hand dropping roughly to the hip area. One example of this was reported in the following way:

...I would let them drop it a bit so they are more comfortable, not right down by the side but to about hip height. I do show them the right way but when they say it is hurting their hand I say, I know. I show them the proper way, the textbook way but inevitably they change it... (RW1)



**Figure 2: Adaptation of the 7 elements of long white cane two-point touch technique**

**To what extent are your clients involved in the adaptation process?**

All of the participants reported that their client had a pivotal role in the training partnership.

On the whole the process of adaptation involved:

1. The delivery of the classical techniques by the rehabilitation worker
2. The initiation of an adaptation by the client
3. The approval by the rehabilitation worker that the adapted technique did not compromise safety.

One example reported by RW2 encapsulated this perspective:

...it's a partnership – I will look at what you do and try and think about what I can adjust to make it safe and appropriate. If that's not what you want, if you can explain what you think will make it easier for you. We work together. I would look at something and identify they are not safe and ask them why they think this has occurred. I don't like to be like a teacher in a school saying this is what you must do and if you can't do it that way I will show you another...  
(RW2)

Describing a training session in which the techniques were taught in their classical form and the adaptation process was initiated by the client, one participant described how they were reluctant to accept the adaptation:

...I will ask them how they want to hold it and if they drop their hand to the side I will say no. I will show them where it should be...we try to come to a compromise – they initiate it, I say this is the right way and hopefully they go with the right way... (RW1)

They went on to say that they have:

...never started with the adaptation...adaptations are not improvements on the skill; the right way is the right way for a reason... (RW1)

The role of the client in the adaptation process was further described by one participant who suggested that to ensure safety is maintained the limitations of an adaptation need to be understood by the client:

...I try to come to a happy medium with the client because it's pointless torturing someone to do something that is very difficult for them to achieve. I think in the long run it would be more dangerous because I know for sure they will not keep their hand in the...[classical]...position and they will walk out of step, I think it is more dangerous or hazardous to continue to do that, then adapt or change the technique and see how they manage... (RW15)

**What percentage of your clients successfully achieve the long cane training goals you set for them?**

The percentage of clients identified by the participants as successfully achieving the long cane goals set for them ranged from 8 to 100%. The most typical percentage estimated by the participants was 80%. Seven participants who reported very high percentages of successes gave the following descriptions:

...most of them... (RW10)  
...most of them achieve it... (RW16)  
...all but one... (RW13)  
...99%... (RW14)  
...90%... (RW5)  
...100%... (RW8 and 9)

There were two main factors reported by participants that affected their clients' ability to achieve the training goals set for them. Five participants reported health problems (physical or psychological) as a barrier to achievement. One example of this was:

...one percent do not achieve because something else happens in their life along the way, health problem, change in lifestyle, another disability... (RW14)

Five participants reported the client's lack of confidence as the barrier to success. An example of this was described by one participant who said:

...confidence – you can train one to one, but they have to apply those skills – confidence to travel... (RW3)

One participant felt that it was their personal overenthusiasm which made their clients not achieve the goals; this participant felt that 90% of the clients achieved their goals.

In contrast to the majority of participants, only one felt that the percentage of clients achieving the goals set for them was just over 50%. They identified the complexity of the environment and the unpredictable behaviour of pedestrians and traffic as major influences on successes and the impact this has on an individual's ability to concentrate. They also identified that some clients are affected by a:

...psychological barrier. In the sense that a lot of people find it really stigmatising to use a long cane, they struggle to come to terms with using it and I think that creates a barrier to teaching... (RW15)

**At what point in your practice did you feel confident in your delivery of O&M training?**

The progression from novice to expert includes exposure to myriad experiences over an extended period (Cianciolo, *et al*, 2009). Repeated exposure and reflection can promote confidence in practice; therefore, the point when participants felt confident in their practice was investigated.

Participants reported that they felt confident in the delivery of O&M early on in their career. Eight participants linked their confidence to the experience of putting their skills into practice; whereas, for three of the participants this occurred either during a practical placement element of their training or following the placement and the subsequent qualification as a rehabilitation worker (RW15, RW5, RW6). Five participants reported that they felt confident on:

...the day I qualified... (RW2, RW7), or  
...after the first client... (RW4, RW8, RW9).

Similarly, three participants reported that their confidence came at the beginning of their career, these reports included:

...early on... (RW1)  
...immediately... (RW12)  
...straight away...(RW13).

Three others gave more specific estimations of time including six months (RW14), eight months (RW3) and two years (RW10).

### **What were the factors that led you to feel confident?**

When identifying the factors that led to them feeling confident, the participants' opinions were divided between academic development and practice experience.

Two participants reported that the work they had undertaken with their first client was a major factor in the development of their confidence. An example of this was:

...first client with no sight – very different teaching someone with no sight. Sighted guide, confidence building I was building my confidence as we went on... (RW14)

Five of the participants reported how the success or achievement of their clients was what led them to feeling confident. This was encapsulated by one participant who said:

...[I]...build...[my]...confidence up through experience – the buzz is to see the client get what they want out of it, get the goal they have set. Seeing people regaining their independence... (RW2)

Three participants discussed aspects of the training they received that afforded them confidence in their abilities. RW12 described how they felt confident as a result of:

...the amount of time...[spent]...doing mobility...[and the]...opportunity to go over and over it when the tutor wasn't there... (RW12)

Two of the participants reported that the judging of their practice against that of other experienced professionals provided realisation of ability and confidence. This came from

either experiencing equality in knowledge through discussion or by working with a visually impaired person who had been taught by another professional. An example of the latter was:

...dealing with people who had used the cane for a long time and been taught by other people... (RW3)

**Do you discuss, consult or seek permission prior to delivering O&M sessions?**

Professional support from a community of practice can impact upon the development of knowledge and expertise (Benner, 2001; Cox, 2005). Consequently, the relationship between the rehabilitation worker and their colleagues was considered to be of interest.

Fifteen of the participants reported that they do not consult or seek permission prior to delivering training sessions. Two examples of these responses are:

...no, because there is nobody to consult or seek permission, I just do it. I decide what the client needs and what I am going to do... (RW15)

...no one to seek permission, advice or support [from]...If there had been someone available I would have continued longer to seek advice and support, but now because there is no one available I have to make my own decisions, used my own initiative, because I had to... (RW4)

In contrast to the majority, one participant reported that all of their work has to be recommended for approval; however, this was considered to be just a formality.

...everything is recommended and then approved – this is a formality because they employ us for their professional judgement and let us get on with it. Line manager signs off learning outcome forms approved prior to delivery... (RW10)

**Describe an O&M session with a client which you feel was the most influential in the development of your practice (eureka moment)?**

At the current time vocational development for the rehabilitation worker is predominantly sourced from their practice. However, as “experiential learning is not based upon a mere

passage of time but on openness to learning” (Benner and Benner, 1999, p.26) there are likely to be key developmental events that inform the rehabilitation worker’s practice.

When identifying the most influential O&M training session, rather than isolate one specific training event all of the participants chose to describe a complete training programme to highlight the relevant issues they felt were the most influential in their development.

Ten of the participant reports were divided between two broad concepts: working with a client who presented complexities beyond those resulting from a visual impairment and experiences of delivering skills-based O&M training.

### **Complex clients**

Five participants described experiences that they considered to be most influential to their development where they had worked with a person with a visual impairment who had also presented additional biopsychosocial characteristics that required attention, these included additional disabilities, substance abuse and behavioural challenges. The following are two examples of such reports where the rehabilitation worker had been required to embrace the individuality of the client rather than focus purely on the delivery of skills-based training:

...working with this gentleman – he was young, 38–40, was very difficult because I also had to deal with the fact that he was depressed and he was finding it difficult to come to terms with the fact that he was blind. He was finding it difficult to associate himself with using the cane; he would rather just bump into things and walk out in the road just so that he didn’t have to use a long cane, so for me that was an uphill struggle. He was charging along, I tried to slow him down a bit; he didn’t want to appear to be blind... (RW15)

...middle aged client with [an] anger management problem – lost it in the car park waving his cane in the air – I refused to work with him unless he behaved himself, and he did behave himself after that. After that happened it’s never going to be that bad again, because I know how to deal with it; I wasn’t ready for it. I didn’t have a supervisor or any support it was hell. As a result I have



learnt there is more to O&M than just teaching routes; it's also how they should deal with other people and road users... (RW10)

### **Delivering skills-based training**

Six of the participants reported experiences as the most influential to their development that involved the full use of the O&M skills and techniques as taught to them during their training. This appeared to enable the participant to recognise the extent and value of their knowledge by its suitability to their practice and in meeting the needs of visually impaired people. Two examples of this experience are:

...when I taught someone long cane from scratch. Lady with RP – working in a church hall for seven or eight sessions. The one that sticks out, was she had difficulty walking in step, so we started working on it to help her understand the reason and concept for it. I got her to slow down try and relax, to get into the rhythm of it, after a while it clicked. I was green then; it was a relief that it worked well. I had only been working for three or four months. It was influential because it was a test of my teaching skills and when she achieved it, it was a personal boost and for her to use the long cane... (RW3)

...a young, 20...year old Nigerian chap, just arrived in the country, lost his sight suddenly. Very bright, wanted to learn, eager to undertake mobility, within the first year of work. Aware of using the right techniques – felt I learnt a lot and he was someone who didn't present any issues; he wasn't too difficult, it was someone I had done a proper training course with... (RW2)

In contrast to these perspectives one participant described an experience that was influential to their practice in which their client displayed extraordinary sensory skills during travel:

...we were working in a train station with very few clues or landmarks. We were walking along and she said what's there – it was the stairs, I said that is where we need to go and she said she heard it. Another girl was an expert cane user, blind all her life; it wasn't like work because I showed her where to go; she walked up the stairs; there was a big wall in front of her; I wasn't going to tell her. She walked straight around it; she had never been there before; she said she had heard it. Clients doing things I haven't taught them, it's an eye opener, a whole new league. You can start thinking how can we do that – you can't teach someone how to hear a wall... (RW1)

In a similar way to those participants who had found using their knowledge as influential, one participant reported how the challenge of working on a particularly complex route/environment had been the most influential experience for them; this participant reported this experience in the following way:

...he was severely sight impaired, and he was doing a long and complex journey over to the other side of London. I don't know how he ever got over there to be honest with you. I went from A to Z with him, from home to transport, everything and I found that was really fulfilling. He had met his goals; I had an experience to reinforce some of my training, escalators etc. and gave me a chance to refresh my skills, the underground is not something you do on a regular basis... (RW16)

**Describe an O&M session with a client where you feel your practice was inadequate?**

Similarly to positive experiences, those events where practice is deemed to be inadequate can be valuable reflective learning experiences. Ten of the participants reported experiences of feeling an inadequacy of practice, where their interaction with the client was influenced by an additional psychosocial perspective. These ranged from language barriers, to learning disability, motivation and confidence challenges, and substance abuse. Below are two examples of these experiences:

...a client who you are teaching long cane to and you know they are going out anyway, it's hard to change the way they do things. First few days I felt he was not ready to have a cane, but gave it to him anyway. The hardest is when you teach people who are overly confident, because you cannot teach them the whole danger thing... (RW8)

...[I've] worked with children when they haven't wanted to learn...they don't want to do it. I couldn't motivate them or get them to see that by being independent it was going to be good for them...I never felt I could tell teachers or parents that it's a waste of time, but now I will tell the parent if they or I can't motivate them, then I am sorry, come back to me when they are ready... (RW12)

The experiences of three of the participants contrasted with the above and focussed on the complexity of the environment, in particular, their perceived lack of knowledge or experience

in techniques or skills that suited the features of that environment. One participant reported this in the following way:

...working on a route from the tube station, crossing the road and on down the high street. The pavement sloped away to one side and was very wide. I had a real problem finding a route and appropriate landmarks. On the spot problem solving was the problem, this happened 3 or 4 months after training. We got there in the end but with more experience we would have been able to deal with the route more quickly. Practice was changed with the client by learning from experience and being better able to see the route from the client's point of view and the landmarks that would work for her... (RW3)

**Describe the process of planning you go through before you deliver a long cane training session?**

During rehabilitation worker training the preparation of lesson plans is promoted as a formal planning activity. In contrast to their training, nine of the participants reported that they do not prepare formal lesson plans prior to delivering a training session. One participant encapsulated all of the responses by clearly stating that:

...I wouldn't plan it formally because I prefer it to be more flexible. I know what they want, what their aims are and I work towards that; it wouldn't be a formal plan... (RW12)

As part of the planning process, the importance of identifying the needs of an individual through assessment was reported by seven participants. Six of these participants reported undertaking a formal observation of the environment within which the O&M training is to be delivered as part of their planning process, and five participants 'walk through' the environment with the client to gather information prior to training. One participant reported all of these features stating:

...assessment...[I]...walk the route, take...[the]...client along the route to see how much they can remember of it and then...[I]... find out what they want, then work out a time frame; mobility needs to be regular...I cannot write a pre-lesson plan because clients are all different, they change on a daily basis...(RW13)

Although the participants of this study do not undertake formal lesson planning activities, the majority suggested that they undertake informal planning of session, with one participant stating that they:

...develop a lesson plan in [their]...head... we had to write them at college, but now I do them in my head, because we are stuck with the amount of time we can spend with the client; the lesson plan goes out of the window... (RW8)

Another participant confirmed this approach by saying that they did not produce lesson plans but did plan ahead saying:

...I make notes beforehand on the bus to the client – sometimes I do mind maps if I'm vague about what I'm going to do... (RW5)

This lack of planning was validated by one participant who said that they had heard that:

...once you have trained you don't need to do lesson plans... (RW7)

### **Measurement of quality**

For many people the work they do is required to be of a consistent and appropriate standard. As the rehabilitation worker is often employed in the role of a sole specialist, they may be required to measure and maintain the standards of some elements of their practice. Therefore, how they rate the quality of their work and how they measure their effectiveness was investigated.

### **How would you rate the overall quality of the O&M training sessions you deliver?**

A five point Likert-type scale (Robson, 2011), ranging from extremely effective to ineffective, was employed to establish how effective the participants considered their practice was. Although all of the participants were reluctant to categorise how effective they felt their O&M training sessions were, eventually 15 of them rated the overall quality of their O&M training sessions as: extremely effective (n=4), very effective (n=9) or effective (n=2).

One participant validated their choice of the selection by suggesting that the effectiveness of their training was affected by the wellbeing of the client. They suggested that some sessions could rate as a “1 fantastic” when the client is motivated, whereas another session with a client “who is not bothered” or “ill” or when the training session is adversely affected by environmental disturbances the session could be “awful” (RW1).

### **What factors do you measure your effectiveness by?**

Fifteen of the participants reported that they measured their effectiveness by their client’s achievement. This is described by one participant who stated:

...because it’s not just down to you it’s down to the client as well. Because the client reaches the goals safely. Their goals not my lesson plans. Whether they can travel safely and independently to where they want to go. If they can’t, I consider whether my training was effective... (RW10)

In addition, six of these participants also included that the safety of the client when travelling was an element of their measure of effectiveness. In contrast with this perspective, three participants reported that talking to colleagues was also important in helping them recognise effectiveness. Both of these elements were identified by RW10 who continued by reporting:

...a lot of it is gut feeling – just knowing in your head and your heart that you have done everything you can – talking to other colleagues if I’m not sure if it was effective; I talk it through and see if there is anything else they would’ve done... (RW10)

### **Professional development**

A repertoire of professional development activities for the rehabilitation worker would ideally include both academic and vocational opportunities. There is currently no formal requirement through registration or a governing professional body to undertake structured or unstructured learning activities; therefore, any professional development undertaken by the rehabilitation worker is done so through their own volition. Consequently, the relevance and value of these

activities are likely to suit the practice and the professional development needs of the professional concerned.

### **What attributes best describe you as a practitioner?**

The participants used a variety of terms and descriptions when considering the type of practitioner they thought they were. One participant included such a range in their report stating:

...[I have a]...positive attitude to the job that I'm doing, enthusiastic, empathetic, knowledgeable of the subject, patient, passionate, others have said this about me but I think it is right. Like to think I can change the world. Will bend over backwards for people, doing more than my remit if I can help... (RW7)

On the whole the terms used by the participants were based around two broad categories, 'good with people' and 'flexibility in practice'.

### **Good with people**

Twelve participants chose their ability to get on with people as an attribute that described them as a practitioner, using terms such as 'I'm a people person' and 'I'm good at getting people to talk'. An example of this was provided by one participant who said:

...[I]...don't treat everyone the same...[I'm]...person centred... (RW5)

### **Flexibility in practice**

Six participants highlighted their adaptability and flexibility as an attribute that would describe them as a practitioner. Two examples of this were provided by participants who reported:

...if one thing does not work I try and adapt it to something else, I will keep on doing it and it will come to a point where I have done everything possible and it is just not working... (RW15)

...adaptable – easy going – non-judgemental – very considerate to people's feelings and their needs. Determined to reach my goal, never give up on anybody... (RW12)

### **How do you feel about training ancillary workers to deliver O&M Training?**

With such a small number of rehabilitation workers in the UK compared to the estimated number of visually impaired people (see Chapter 2), the use and distribution of resources is a constant challenge. One resource that may be available to support the work of the rehabilitation worker is the ancillary worker. However, during the delivery of O&M training “the possibility that the student will make mistakes and be injured increases” (Jacobson, 2008, p.179), consequently the use of untrained workers needs careful consideration.

Nine of the participants reported that they would not use or train ancillary workers to deliver O&M training. The reasons for this were based on safety, complexity of the subject and the breadth of knowledge of the biopsychosocial elements of a visual impairment that they believe are required to deliver O&M training. Two reports that provide a number of reasons why this might be the case were:

...it's wrong – how can you teach someone who doesn't have an understanding of visual impairment and what people's needs are. You need those before you start teaching mobility... (RW12)

...don't think so, I don't like that. It's difficult because if people are making decisions in terms of cane use. How does a non-qualified person make the decision about whether it is safe and appropriate for a client to use a symbol cane as opposed to getting more training? Unless you are qualified how do you know you are recommending an appropriate mobility aid? I don't feel comfortable with it... (RW16)

Eight participants reported that they did feel that training ancillary workers would be useful.

Five of these described parameters to this practice, which appeared to mirror those offered by the participants who would not train ancillary workers. Two examples these responses are:

...that's no problem. I had a client with learning difficulties and I had to teach the staff, because she needed a lot of input and I wasn't able to see her every day. I wanted her key worker to be able to instruct her how to do things, how to use the cane to teach her. You teach this bit for a couple of weeks and then I will go back and do some more. I have to make sure that what they are doing is safe, so I observe what they are doing and how they are teaching it. I do ensure safety and it is mainly to do with them learning the technique. Usually people with a learning difficulty, they need a lot of input in terms of learning the technique. It would be somewhere where it is safe and it all depends on their ability... (RW15)

...I would deliver training – sighted guide to pass onto fellow workers. I wouldn't have a problem with symbol cane but not beyond that... (RW3)

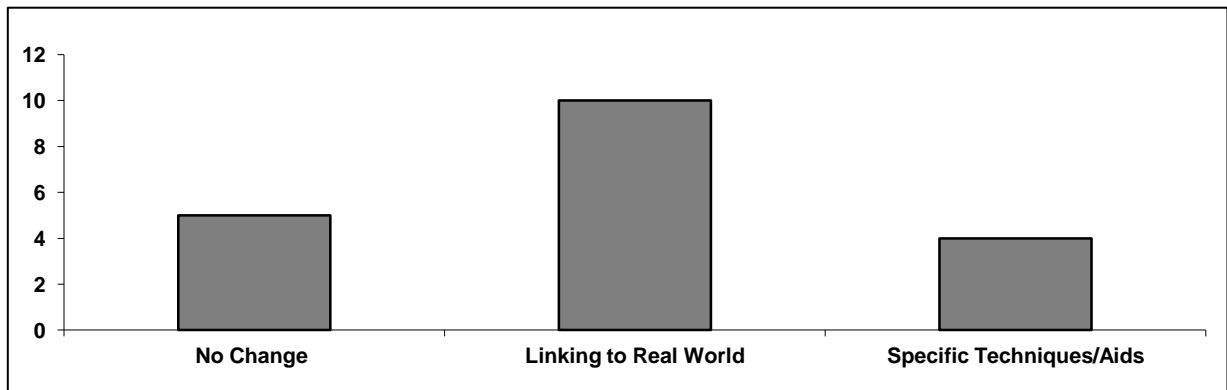
### **Training and development**

As discussed in Chapter 2, the Literature Review, rehabilitation worker training has developed from unaccredited certificates to (Level 5) Dip HE's (Franks 2000) and onto Foundation Degree levels. Although the academic standing of these courses has increased, the content of the courses has on the whole remained unchanged (*ibid*); therefore, it was considered important to understand what aspects of the rehabilitation worker's training could be improved and what promotes confidence in practice.

### **How could the training that you received be changed to be more effective?**

The participant reports fell into three broad categories, 'no change', 'linking to the real world' and 'specific techniques/aids' (see Figure 3). In many cases the participant responses included two or three of these categories.





**Figure 3: Study 1 – How RW training could be changed to be more effective**

### **No Change**

Two of the statements provided by participants that described a ‘no change’ perspective were:

...[we]...did a lot of O&M training – [we]...were guided through each step – it was well taught and supervised. Can teach in busy shopping centres etc. observed by tutor regularly... (RW9)

...I think the training was good. We had a lot of it and for the amount of times I have used it I wonder if it was too much...It was well balanced and well delivered, no need for change... (RW1)

### **Linking to the real world**

Ten participants reported that their training would have benefitted from a ‘linking to the real world’; this for many (n=6) would involve the inclusion of working directly with a person with a visual impairment during their course. One participant who reported this stated:

...the training was delivered in a classroom setting using sym specs and blindfolds. I think the reality is you have got to be working with the clients in practice to have an understanding of how you can conduct that training... (RW16)

In particular, four of the participants reported that the ‘linking to the real world’ should include the challenges of specific environments such as inner city and rural. One participant reporting this stated:

...there should have been a bit more on rural or country O&M it would be a challenge to go and do some training in that environment. It was effective for city travel... (RW2)

### **Specific techniques/aids**

Four of the participants identified specific mobility techniques or aids that they felt were missing or lacking from their training. An example of the reports provided in which details or training in the use of techniques or aids were deemed to be absent from their training was provided by one participant who reported:

... [I]...would like to have done more on roller tips. Someone to develop software to draw maps in large print or tactually. More low vision around mobility – telescopes and things like that... (RW13)

### **What factors do you consider are important to the development of your confidence in your practice?**

On the whole participants provided more than one response to this question. The reports fell into three broad themes of what was important to the development of their confidence; these were ‘professional support’, ‘experience’ and ‘training’.

#### **Professional Support**

In all nine participants highlighted professional support as being important to the development of their confidence. This support included formal supervision with a line manager and informal interaction with colleagues. One example of these reports is:

...good supervision, having someone who knows about O&M. And they can give good advice, good feedback, I think is important... (RW15)

#### **Experience**

The experience of delivering O&M was identified as important to the development of confidence in practice by seven of the participants. One report that encapsulates the value of real life experience was provided by a participant who said:

...it's really getting out there and doing it with people. The placement is there to bridge the gap but sometimes the opportunities don't come along. In an ideal world something ongoing, a link to a practice teacher. It scares me that there are people on the course with no experience of working with people... (RW10).

## **Training**

Four of the participants reported that second level training would help to develop their confidence as a practitioner. This was reported by one participant in the following way:

...knowledge and training, updated training. I feel the most confident when I am doing what I know. Went on a course in social care and the law; I am not an expert but I know more and where I can go to find out more... (RW6)

## **EMERGING THEMES**

Analysis of this study's data suggests that the O&M techniques delivered during training are considered by rehabilitation workers to be fit for purpose when used to meet the travel and independence needs of visually impaired people who have similar attributes to those for whom the classical techniques were originally developed. For instance the long white cane two-point touch technique ideally suits young, physically able people with high levels of motivation, attributes similar to those possessed by the ex-service men, blinded whilst in active service who attended the VAMC (Franks, 2000; Thornton, 1968; Wiener and Siffermann, 1997).

In contrast to this perspective, it is interesting to note that all of the participants of this study stated that they use these classical long cane techniques when starting an O&M training programme with a person with a visual impairment. This would appear to be the case regardless of any idiosyncratic biopsychosocial implications of age or disability presented by the person. It is possible that this is an indication of reluctance by the professional to consider the contextual application of a technique in favour of a novice adherence to the rules (Dreyfus and Dreyfus, 2005) they were taught during training. On the other hand, this may suggest that

the classical techniques they learnt during their training offer a sound, established and formalised starting point, from which areas for adaptation can be easily recognised. Although this approach has the value of keeping the technique as close to the classical form as possible – thereby maximising safety – it is questionable as to whether this is cost effective in time and application. This is especially pertinent in light of the finding that the participants of this survey regularly adapt six of the seven elements of two-point touch technique (as described in Chapter 2) to meet the travel needs of older visually impaired people.

Although the participants of this study regularly adapted the application of techniques in practice, this was not without consequence. There appears to be an underlying sense of transgression amongst the participants that by making adaptation to the techniques they are in some way breaking the rules of the training they had received. This issue may offer insight into a macro/micro divide in which at a macro level the practising professional feels competent to choose and apply the appropriate technique to meet the needs of the individual but at a micro level they are uncertain about making adaptations to the individual elements of that technique.

In support of this latter observation, the participants of the survey indicated that they do not adopt the traditional perspective of teaching indoor travel technique, such as sight guide described by Jacobson (2008) as “the first formal lesson in the traditional O&M curriculum” (p.33) and pre-cane skills, prior to the introduction of long white cane outdoor techniques. The rationale for this appeared to forsake the value of learning indoor techniques as a stepping stone towards the independence they can offer a person with a visual impairment, in favour of a pragmatic perspective in which the technique is applied to challenge the immediate environment experienced by the traveller. In the UK the rehabilitation worker’s clients often

receive services in their home location. As the person with a visual impairment is likely to be familiar with this environment, the perceived value of indoor techniques appears to be purely focussed on maintaining safety, rather than transferability and confidence building (Jacobson, 2008). This view is supported by those participants who suggested that these techniques are applicable to the residential care setting, a situation that is remarkably similar to the hospital environment experienced by the blinded ex-servicemen at the VAMC.

During the discussions about the participants' client group, it was interesting that only two were unable to identify a predominant client group, instead these participants offered an insight into the possible breadth of the rehabilitation worker's role by describing their clients as between 18 and 65 years of age and 10 and 86 years of age. In contrast to this, the majority of participants taking part in this study described their major client group as either older or elderly people (n=9) or by using an age descriptor 65 to 70+ (n=9). Importantly, a number of these participants (n=7) chose to combine their description with the eye condition AMD.

Whilst it cannot be assumed that the participant responses do not include older people with congenital eye conditions – or experiences of eye conditions commonly associated with onset earlier in life such as glaucoma, diabetic retinopathy or retinitis pigmentosa (RP) – it is common within the field of vision rehabilitation to use the term older people as a descriptor for those clients with the late onset eye conditions (which is usually AMD). It could be argued that this is partly due to the tendency within the social care system for older people to be “defined as over 65 years of age” (Centre for Policy and Ageing, 2009, p.5) and that AMD is by far the most common cause of visual impairment in this age group (and the most common cause of visual impairment in the UK). This common use of the term older people to describe those clients with AMD may also be based on the assumption that those with an earlier onset of visual impairment caused by congenital sight loss from eye conditions such as RP, should

have come to the attention of the social care or education systems (voluntary and statutory) earlier in life and, therefore, are less likely to form a major part of the rehabilitation worker's predominant client group.

A perhaps unsurprising finding – considering the closeness of the working relationship between the rehabilitation worker and their client – showed that the rehabilitation workers perceive the key measurement of their professional effectiveness as the extent to which their clients become mobile. The focus of this measurement appears to be a qualitative measure based on the rehabilitation worker's experience of what they consider to be safe. This perspective contrasts with that of Dodds' (1996) assumption (see Chapter 2) that the measure of effectiveness is the increased number of journeys an individual would undertake following training.

When measuring the quality of their work, it also appears that the participants of this survey – expert in issues related to visual impairment – are often confounded by the biopsychosocial implications of old age. It was suggested that those clients who do not meet, or partially meet their aims and goals are those who present with a variety of complex issues, such as psychological, physical, social, cultural or communication constraints. These clients who do not match the stereotype suited to classical techniques require creative and innovative learning experiences to address their issues and foster motivation, which it would appear the rehabilitation worker struggles to develop, resulting in a non-achievement of aims and goals. Therefore, setting a measurement of achievement against criteria (long white cane techniques) that are not suited to the majority of people with a visual impairment in the UK may be a source of uncertainty and concern over professional ability experienced by many of the participants of this study.

Furthermore, the analysis of data suggested that there was limited, and in some cases non-existent, access to technical 'rehabilitation specific' managerial support, continued professional development courses and developmental paradigms. In many cases it would appear that a possibly ineffective approach to the measurement of quality and effectiveness combined with inconsistent, and in some cases non-existent, professional development opportunities for a progression along the Dreyfus and Dreyfus (2005) continuum from novice to expert for the rehabilitation worker is uncertain.

## **METHOD EVALUATION AND REFLECTION**

The decision to utilise a face-to-face semi-structured questionnaire offered this study an emergent quality that was appropriate for the exploration of a field with little prior research. It is recognised that the potential for researcher bias is ever present in the face-to-face interview (as discussed in Chapter 3). However, the consistency of arranging, attending and being able to support the participants by using tools such as the classical long cane technique video (which helped to establish common knowledge) promoted the dependability of the approach. In addition, this offered the opportunity to focus the participants' interests and secure their direct and immediate responses, which supports the credibility of the process and the resultant data. The credibility of the data could be improved through member checking at the time of the study. However, in combining the findings of the three studies within this thesis it has become clear that there are common themes (discussed in Chapter 7) that transcend all of these research activities.

To ensure this study was a firm foundation for the emergence of Study 2, and that the findings would be of interest to the field of vision rehabilitation, confirmability of the findings was sought through supervisory scrutiny and the peer review process when publishing the findings

in the BJVI. It was the researcher's intention that all of the data and findings of this study would be made accessible to the field of rehabilitation for workers, training providers and service providers. Therefore, the study's transferability and dependability was considered paramount. To achieve this, the semi-structured questionnaire, documented in detail, gave an openness which, along with the procedure and collected data, offers the reader the opportunity to access and use the findings to validate or reflect upon their practice. However, the extent to which this is possible relies on the reader's ability to access and utilise the findings. The limited knowledge of research amongst rehabilitation workers and the cumbersome format of PhD theses mean that this is unlikely. Therefore, the development of accessible practice-ready materials may be required (see Chapter 8, Conclusion and Recommendations).

## **RECOMMENDATIONS**

The findings of this study suggest that a sense of transgression is experienced by the rehabilitation worker in relation to adapting long cane techniques for older clients and this hinders the development of innovative paradigms of practice for this client group. Therefore, the effectiveness and value of the most established O&M technique, the long white cane two-point touch, needs to be reappraised specifically in relation to its suitability and relevance to the rehabilitation worker's major client group – older people.

## **CONCLUSION**

This chapter presented the procedural method, analysis and findings of the data collection of Study 1.

In essence the overall investigation was one of relevance. The potential dearth of empirical research described in Chapter 2 represented a lack of knowledge and the evidence required to establish the suitability and relevance of the rehabilitative strategies and techniques that are



employed by rehabilitation workers to meet the needs of visually impaired people. Also explained in Chapter 2 are the skills and techniques employed by the rehabilitation worker. As these are vast, an emergent and flexible study was designed to explore the subject of O&M. In particular, this study focussed on the long white cane technique of two-point touch, a technique considered a specialism of the rehabilitation worker, seeking to answer the question: In what ways do rehabilitation workers think their professional training aligns with their professional practice and clients' needs?

The findings of this study suggest that there is considerable consistency in rehabilitation worker training. The unanimity of the participants – whose training spanned three providers – confirmed that the classical O&M long white cane technique of two-point touch has remained consistent in rehabilitation worker training for the past 16 years. As the technique demonstrated to the participants of this study was taken from a the publication of Hill and Ponder (1976) it would appear that, as discussed in the Literature Review the long white cane technique of two-point touch delivered during rehabilitation worker training has remained unchanged since its introduction into the UK in the mid-1960s.

Interestingly, the study also uncovered a consistency amongst rehabilitation workers of the adaptations required for this technique to suit the independent travel needs of visually impaired people. With all of the participants adapting the individual elements of the long white cane two-point touch technique to meet the needs of their clients a question of its relevance arises. Although the measurements of effectiveness employed by the rehabilitation worker are client achievement and safety, the overriding sense of transgression expressed by the participants raises concerns over the confidence they have in developing models of practice that are both effective and safe.

Furthermore, analysis of the data suggests that the line management and professional supervision received by the participants of this study was on the whole social-work based and not specialist rehabilitation. Whilst this offers caseload management the lack of specialist discussion and advice appears to counter the bridging of the gap between theory and practice by failing to offer the validation of good practice. In addition, a lack of second level training further confounds the opportunity for professional development and confidence in practice.

The next chapter of this thesis, Chapter 5, presents Study 2 – Expert opinion of good practice O&M training for older visually impaired people, emerging from the findings of Study 1. The Delphi survey it describes explored expert opinion on the constituent elements that represent ‘good practice’ in the delivery of O&M to older visually impaired people.

## **CHAPTER 5: STUDY 2**

### **EXPERT OPINION OF GOOD PRACTICE O&M TRAINING WITH OLDER VISUALLY IMPAIRED PEOPLE**

#### **CHAPTER OVERVIEW**

The findings of Study 1 (Exploring rehabilitation workers' opinions of the relevance of their training to their practice and the needs of their clients) were used as the basis for the construction of Study 2 – expert opinion of good practice O&M training for older people.

Exploring the influence experience has on the application of O&M, Study 1 suggested that the classical O&M techniques taught to rehabilitation workers during their training contrast with the techniques required by their clients (older people with a sight loss) to travel safely and independently. The development of practice models that meet the needs of these clients appeared constrained by a notion that the rehabilitation worker training was fit for purpose and that any adaptation would be a transgression which might have unknown consequences. To establish an expert perspective on what constitutes O&M good practice a panel of five university and independent training organisation staff was formed.

Following a description of the evolution of the aim and research question, the process and application of the Delphi method is described. The chapter goes on to discuss the participant selection process and that of the Delphi survey undertaken by the members of the expert panel, including the value and application of a vignette (describing a rehabilitation worker's typical client). Offering an opportunity to counter some of the disadvantages posed by the distance created in the application of an electronic survey, this vignette focussed participant attention to control bias and the lack of the "opportunity to correct misunderstandings or to probe, or to offer explanations or help" (Oppenheim, 2005, p.102) associated with respondent-completed surveys.

The chapter continues with a detailed description of the data gathered during the three rounds of Delphi survey (2009–2010); this is presented in detail as it was considered important that the processes, complexity and evolution of the participant responses were understood.

Refining responses through iteration, a consensus of opinion was reached on what were considered ‘core’ and ‘individual specific’ elements of an O&M service for visually impaired older people. The data gathered during this process was summarised by the researcher and validated by the panel as representative of their collective opinion. The final stage of this process comprised a complete documentation of good practice guidelines for delivering O&M services to older visually impaired people.

This is followed by the contextualisation of the emerging themes with the findings of the Literature Review (see Chapter 2) and those of Study 1 (see Chapter 4). This chapter concludes with the recommendation to investigate the real life elements – as delivered by practising rehabilitation workers – of the themes identified by the expert panel as ‘core’ to the effective delivery of O&M training to older people.

## **RESEARCH AIM**

Analysis of the Study 1 data suggested that the opportunity for the rehabilitation worker to discuss practice with peers and reflect on performance to recognise effective models of practice is limited. This, coupled with the feelings of transgression they experience when adapting the classical techniques of O&M, may restrict the opportunity for the development of innovative and relevant models of practice. Therefore, it could be argued that when met with the challenge of training a visually impaired person in techniques of O&M, the rehabilitation worker is likely to repeat their learnt experiences and deliver training as they were taught in its textbook form. This novice rigid adherence to “context free” theoretical

rules is in contrast to the expert's experience-based "know how" (Dreyfus and Dreyfus, 1986, 2005; Benner, 2001).

Interestingly, the Study 1 findings showed that opportunities for the development of practice are afforded the rehabilitation worker through the range and intimacy of the working relationships they have with their clients. However, access to structured and unstructured reflective opportunities where "preconceived notions and expectations are challenged, refined, or disconfirmed by the actual situation" (Benner, 2001, p.3), which are vital for the development of the expert's holistic and intuitive grasp of a situation, are limited. The impact of adherence to the rules of their training and the lack of opportunity to develop new models of practice could cause the professional to struggle to validate their practice and progress along the developmental continuum from novice to expert.

It can be argued that with limited access to professional development opportunities and no formal feedback mechanism, O&M practice and training will continue to be based on "perceived common sense and popular opinion rather than of sound knowledge derived from research" (Franks, 2000, p.209). To challenge this common sense approach, the broad aim of this study was to generate a consensus of expert opinion on what constitutes good practice O&M training with older visually impaired people.

## **RESEARCH QUESTION**

The universities (Birmingham City and York St John) and private training provider (Provision Solutions Ltd) that at the time of undertaking this study offered rehabilitation worker training courses employed experienced rehabilitation workers as tutors and lecturers. This opportunity to capture knowledge that both appreciates and transcends theoretical boundaries offered a pool of participants from which a sample could be recruited to contribute to a Delphi Survey

focussed on generating a consensus of opinion to answer the question: How do experts define good practice in relation to O&M training with older visually impaired people?

To achieve the data generation required to address this question three rounds of Delphi survey were constructed as follows:

### **Round 1**

1. The presentation of a vignette to establish the features of a rehabilitation worker's 'typical client'.
2. Gathering opinion from the participants on what type of O&M services this 'typical client' would require.

### **Round 2**

1. The extrapolation of the themes or O&M (developed in Round 1) that are applicable to the general population of older visually impaired people.
2. The identification of the 'core' elements of good practice O&M training with older people.

### **Round 3**

1. To establish elements of O&M training that are not 'core' but are addressed by a rehabilitation worker as 'individual specific'.
2. To reach a consensus of expert opinion on what constitutes holistic 'good practice' O&M training with older people.

## **METHOD**

The researcher was concerned that the findings of the three sequential studies presented in this thesis should be of value to practising rehabilitation workers' professional development and to training providers as evidence of the value and relevance of rehabilitative strategies. In a field where there is a lack of foundation – as discussed in Chapter 2 – upon which new research can rest, there is limited opportunity for this to happen. For the research to be of value it was considered important that the feedback mechanism was grounded in the knowledge embedded within the rehabilitation worker's practice. Embracing the cyclical concepts of action research such as change, participation, reflection, creativity and improvement (Cohen *et al*, 2007; Robson, 2002) a nominal group method was employed to capture individual innovative thinking and group consensus. These benefits of collaborative working were realised by employing an electronic Delphi survey method, which in turn managed the financial restrictions of a self-funded study by limiting the need for travel by the researcher or for the participants to contribute to focussed discussions and group working activities.

### **Delphi Survey**

The Delphi survey is designed to gather data from experts and, in particular, is often employed as a predictive tool that “is well suited as a research instrument when there is incomplete knowledge about a problem or phenomenon” (Skulmoski, *et al*, 2007, p.1). Matching the researcher's interest in the development of innovative data, this process also aims to promote the positive effects of nominal group working such as collaborative thinking and knowledge pooling. Importantly, in a field of specialism – such as rehabilitation – in which there are a small number of protagonists, the process pre-empts the social, personal and political conflicts (Rowe and Wright, 1999) that can have an adverse impact on the effectiveness of group decision making.

Deploying a classic Delphi method, three rounds of survey were administered between 2009 and 2010. Securing the anonymity of the participants whilst also optimising the inclusion of individual contribution, this process also solicited commitment from the participants to recognise and reflect upon their contributions during procedural iteration. In addition, promoting the development of the participants' knowledge and experience of practice they were encouraged "to be more thoughtful than...[perhaps they would be in]...a single-round survey" (Wall Emerson and Corn, 2006, p.4).

### **Selecting experts**

This study aimed to progress the line of enquiry established by the antecedent study (Study 1, reported in Chapter 4) by investigating the experts' perspective of what constitutes good practice in the rehabilitative delivery of O&M training to older visually impaired people. To achieve this it was important to recruit panel members who were considered experts within the field of vision rehabilitation, and in particular O&M.

Rehabilitation workers are predominantly employed within the statutory social care sector (social services) or the voluntary sector (sight loss charities) (Franks, 2000). Commensurate with their working title, the majority of rehabilitation workers hold practical 'worker' level positions with very few (56 of the 330 surveyed by Franks) in posts with senior or management responsibility (*ibid*: p.111). Although these professionals are likely to possess the traditional expert requisites of "skills and knowledge" (Ericsson, 2009, p.3), the identification of their ability to "consistently....exhibit superior performance" (*ibid*, p.3) was not possible.

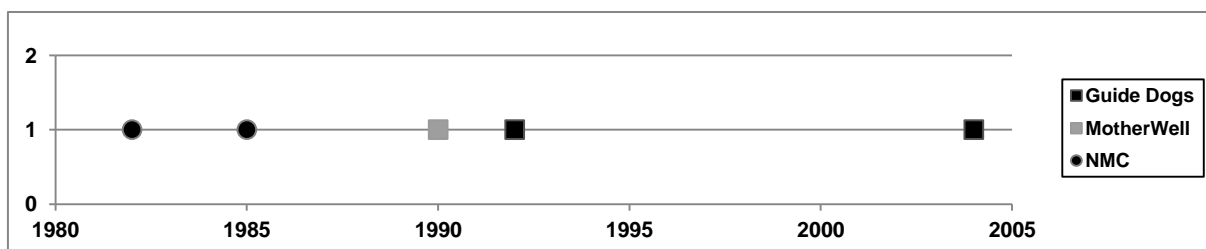
In addition, the clear lack of published peer reviewed literature, academic writing or conference presentations produced by rehabilitation workers or academics in the UK (as



described in Chapter 2, the Literature Review), made the identification – by publication – of high performing individuals impossible. For this reason the key criteria utilised for the selection of experts were status, professional experience, guaranteed access to information (Brown, 1968, p.4) and “knowledge and experience with the issues under investigation...capacity and willingness to participate...sufficient time to participate...and...effective communication skills” (Skulmoski *et al*, 2007, p.4).

As discussed previously, as a practising rehabilitation worker and having lectured in rehabilitation studies on a number of past and current training courses, the researcher had contact with university faculty and private training company (Provision Solutions) staff. Therefore, a purposive sampling strategy, which Merriam (2009) describes as offering an investigator the greatest opportunity to “discover, understand, and gain insight” (p.77), was adopted to recruit experts based on the above criteria. Seven prominent individuals were approached for their positions as educators of rehabilitation workers (status and effective communicators), their experience as a practising professional (all holding rehabilitation worker qualifications) and their knowledge and access to literature (guaranteed access to information, capacity and willingness to contribute). Six of these agreed to contribute to the expert panel: four male, two female with an age range between 39 and 54.

Two of the participants held Mobility Instructor Certificates awarded by the National Mobility Centre (NMC), two held rehabilitation worker certificates awarded by Guide Dogs and Motherwell College. One participant held a Birmingham University accredited Diploma in Rehabilitation Studies delivered by Guide Dogs (Figure 4).



**Figure 4: Expert panel qualification timeline**

Four university faculty members (one of whom subsequently withdrew) from York St John and Birmingham City Universities, one freelance trainer and one lecturer from Provision Solutions agreed to contribute to the research programme.

In addition to their rehabilitation worker training, two of the participants had undertaken post qualifying second level training, these included Certificates, BA (Hons) and a Master's Degree in Education.

### **Reporting protocol**

As with similar nominal group techniques the Delphi method of survey offers the opportunity for each participant's individual contribution to be valued and included in its entirety (Cohen *et al*, 2007). To maintain this integrity in the presentation of the data each of the expert participant contributions have been numbered from EX1 to EX5. In addition, the process of the Delphi survey method collates responses to represent common features which, agreed by the panel, represent consensus of opinion (*ibid*). As used in the previous Study (see Chapter 4, Study 1 – Exploring rehabilitation workers' opinions of the relevance of their training to their practice and the needs of their clients), the following quantifiers have been adopted to present common perspectives and themes: 1 participant as singular, 2 or more as 'a few', 5 or more as 'some', 10 or more as 'many', 20 or more as 'most' and all of the participants as 'all' (Pavey, 2011).

## **Vignette**

Some O&M concepts are individual to those people with low vision – such as the use of colour contrast, eccentric viewing techniques and low vision aids – and no vision (Wall Emerson and Corn, 2006), which requires more focus on the use of the senses (hearing, kinaesthesia and tactile). In order to promote a sense of realism and to focus the panel members on their experiences, perceptions and values (Rapaport, *et al*, 2008) of O&M with a specific client group (older people) a vignette methodology was developed. To achieve this it was vital that the vignette described circumstances and details of a typical client who may be encountered in practice (Charles and Manthorpe, 2009, p.98). Taking the form of a post-initial assessment narrative referral for an O&M assessment, the vignette described the circumstances of a hypothetical 73-year-old widowed female with an age-related loss of vision (see Appendix 5). Included in the vignette were descriptions that suggested isolation, fear of society, fear of falling (both indoors and outdoors) and an overall lack of independent mobility. It was also suggested that she had a good knowledge of the local area but she and her family were fearful for her safety when outdoors. In order to validate the vignette's authenticity, the panel members were asked to judge the accuracy of the vignette as a description of a typical rehabilitation worker's client on a five stage summated Likert-style scale (Robson, 2011) ranging from extremely typical to not typical.

## **The Delphi rounds**

The study consisted of three rounds. Following a telephone invitation by the researcher, each participant was sent an e-mail containing a briefing document (see Appendix 5.1). This document contained an explanation of the aim of the research, the researcher's connection with the University of Birmingham and contact details, information regarding the possible benefits of contributing to the research, how the data would be gathered and a statement of

confidentiality. In addition to this, the document also contained a presentation of the intended Delphi survey procedure (Table 3).

**Table 3: Study 2 – Delphi procedure**

<b>Round 1</b>	E-mail 1 Initial Questionnaire	E-mail 2 An anonymised summary of responses for comment, confirmation and modification of responses.
<b>Round 2</b>	E-mail 1 Further Investigation Questionnaire (FIQ) based on Round 1 results & summary comments.	E-mail 2 An anonymised summary of responses for comment, confirmation and modification of responses.
<b>Round 3</b>	E-mail 1 FIQ – based on round 2 results & summary comments.	E-mail 2 An anonymised summary of responses for comment, confirmation and modification of responses.

Included with this e-mail was a general information questionnaire (GIQ) (Appendix 5.2).

Along with requests for confirmation of the panel member's name, gender, preferred contact details, employer and employment title, this questionnaire also requested details of qualifications and second level post qualifying training.

A proviso was applied to each round to focus the expert panel; this asked them to consider (when documenting their comments) what, in their experience, was the ideal way of working with and meeting the O&M needs of older people with a vision impairment. They were reminded that this perspective may be different from their training, current working practice or the organisational policies they had previously experienced.

## Round 1

Upon receipt of the completed GIQ each participant was issued with the first round documents. The Round 1 e-mail contained the following researcher communication:

Thank you for returning the General Information Questionnaire

Please find attached a:

Vignette - of a typical rehabilitation worker's client

Questionnaire

Please read the vignette carefully then complete the questionnaire and return by e-mail within 10 working days.

Please remember when writing your comments to do so from a perspective of what you consider (in your experience) to be the ideal way of working with and meeting the O&M needs of older people with a vision impairment. This may be different from your training, current working practice or the organisational policies you have experienced.

Thank you

Attached to this e-mail was the Vignette (Appendix 5) written in the form of a post-assessment referral for O&M training.

Also attached to the first e-mail, the panel members received the Round 1 questionnaire (see Appendix 5.3). This questionnaire requested the panel members identify and give justification for their choice of 10 targets of O&M training that they thought would benefit the client described in the vignette. Following this request, panel members were asked to provide a description of how each of the targets could be effectively implemented.

In Round 1 panel members contributed between four and 12 O&M interventions, explained in detail in the following results section. The results were summarised by the researcher and presented in 12 themes, with accompanying rationale: family, mobility aids, assessment,

orientation, sighted guide, other professionals, working together, the individual, road crossing, public transport, the public and the senses. Once collated and combined with a summary of the justifications provided by the panel, the summary document was distributed to the panel members for their validation and to offer them the opportunity to make revisions or provide further targets or justifications.

## **Round 2**

Following confirmation from all of the panel members that the Round 1 summary was an accurate representation of their responses, panel members were issued with the Round 2 e-mail.

The aim of the second round of this process was to refine and consolidate the responses received from Round 1 and at the same time transpose the themes identified to the general population of older visually impaired people. To achieve this, panel members received the following e-mail request:

Thank you for completing the first round of the survey

Please find attached a document entitled:

Round 2 - Questionnaire

For each of the themes (identified as required for effective O&M intervention with the client represented in the vignette) please now consider the general application of O&M to older people and return the questionnaire by e-mail within 10 working days.

Please remember when writing your comments to do so from a perspective of what you consider (in your experience) to be the ideal way of working with and meeting the O&M needs of older people with a vision impairment. This may be different from your training, current working practice or the organisational policies you have experienced.

Thank you

This e-mail included a questionnaire attachment (see Appendix 5.4) which requested panel members to indicate which of the 12 themes (family, mobility aids, assessment, orientation, sighted guide, other professionals, working together, the individual, road crossing, public transport, the public, the senses) should remain intact, be removed or combined with another theme. They were also asked to qualify their suggestions.

The results of Round 2 showed that all the panel members reported that the themes of mobility aids, other professionals and road crossings should remain without modification.

The majority of panel members reported that public transport, assessment, the individual, the senses, orientation, the public, family and sighted guide should also remain, some panel members felt, however, that elements of these themes should be combined with others. It is essential that the Delphi process values all contributions; therefore, the reports that suggested combining these themes were reported in full and included in the Round 3 process of the survey. Only one theme (working together) was chosen by the majority of panel members to combine with others.

Following the protocol of Round 1, the responses were collated and summarised by the researcher and sent to the survey panel members for their validation. These are displayed in full in the results section below.

### **Round 3**

The aim of the third round of the Delphi survey was to further consolidate and refine the panel members' responses. To do this the panel were asked to consider the delivery of services from a service design perspective and identify core and individual specific themes of O&M.

Following confirmation from all of the panel members that the Round 2 summary was an accurate representation of their responses, panel members were issued with the Round 3 e-mail.

This e-mail contained the following request.

Thank you for completing the second round of the survey.  
Please find attached a the round Three Questionnaire.

In order to design a comprehensive O&M service for older visually impaired people, the core service (available to all clients regardless of needs) and the individual specific elements (dependent on individual need) need to be identified.

Imagine you are designing a comprehensive O&M service for older visually impaired people and document below the attributes of each theme that you consider should be core to an ideal service and those that are individual specific.

In formulating your answers you may wish to refer to the attached document (themes required for effective O&M intervention with older people).

Please remember when writing your comments to do so from a perspective of what you consider (in your experience) to be the ideal way of working with and meeting the O&M needs of older people with a vision impairment. This may be different from your training, current working practice or the organisational policies you have experienced.

Thank you

In the attached questionnaire (see Appendix 5.5) panel members were provided with the 11 themes agreed during Round 2 (O&M assessment, other professionals, road crossing, public transport, the individual, the senses, orientation, the public, family, sighted guide and mobility aids) and asked to indicate if they considered the theme to be 'core' to services provided to visually impaired older people or 'individual specific' (meaning that the delivery of this service would depend solely on the circumstances of the individual). To assist them the panel were provided with one example devised by the researcher (see Table 4).



**Table 4: Study 2 – Example of identification of a theme as ‘core’ or ‘individual specific’**

<i>Theme</i>	<i>Core Elements</i>	<i>Individual Specific Elements</i>
<i>Mobility Aids</i>	<i>(Everybody should be issued with a) Symbol cane and instruction in how to use it</i>	<i>(In addition) Training in the use of - Guide Cane - long cane - Walking stick (should be made available as required by the client)</i>

In addition, panel members were asked if they would like to include any further themes not previously represented and if they had any comments on the themes.

The results of this round showed that panel members reported that all 11 themes should be represented as core to effective O&M training with older visually impaired people, but there are a number of elements of each theme that are individual specific.

## **RESULTS**

The data submitted by each member of the panel was collated into a single data set which was summarised by the researcher. To maintain the integrity of the responses, every point provided by the panel members was included in the summary. This single document was dispatched by e-mail to the panel members for them to approve and also have the opportunity to make revisions or additions.

### **Delphi Survey – Round 1 results**

Like a traditional paper survey, an e-mail managed Delphi process maintains a physical distance between the panel members and the researcher and, therefore, a counter to opportunities for researcher influence. However, this distance can also confound effective communication and understanding of focus amongst the panel members. In order to focus the attention of the panel on the main elements of the research (O&M with older people), a vignette was devised to represent a typical client of the rehabilitation worker. This vignette was dispatched with the Round 1 questionnaire. Panel members were asked to rate the

vignette on a Likert-type scale and were also given the opportunity to provide any additional information they felt would improve the accuracy.

**Please rate the attached vignette as a representation of a typical client**

Three of the panel members rated the vignette as “very typical” (EX 2, 4 and 5) and two as “typical” (EX 3) or “fairly typical” (EX 1). When asked what additions or changes they would make to improve the vignette to more accurately represent a typical client, the following statements were made:

Inclusion of a statement of whether or not there are any balance issues or hearing loss. (EX5)

Most 73 year old clients have an illness or health condition such as arthritis or high blood pressure. This is very typical of an RW client in social services based in a middle class area but the SU may have language difficulties or live in inappropriate housing etc. depending on area. (EX4)

To have the son living in the UK but at distance. (EX1)

The panel members were next asked to use the vignette and, imagining they could deliver an ideal service outside of institutional, time or financial constraints, to list up to **10 targets of O&M training** that they thought may benefit this client. In addition they were asked to give a **justification** for choosing each of the O&M targets. The panel members reported between four and 12 O&M targets providing justification for each. The responses were compiled into one document (see Appendix 5.4) and returned to the panel members for review and to offer the opportunity for changes or additions to be made.

**Round 1 summarised responses agreed by the panel**

**Assessment (initial and ongoing)**

An integral element of the rehabilitation worker’s role is the assessment of a visually impaired person (Franks, 2000). Prior to undertaking any training programme it is vital that the

rehabilitation worker fully assesses the client's abilities and needs; therefore, it is perhaps not surprising that three of the panel members identified the process of assessment as either an individual target or as part of another process. An example from a panel member who did not identify assessment as a specific target but included this as an element of another target (in this case eccentric viewing strategies) reported:

Carrying out a functional vision assessment and training in eccentric techniques and then implementing these by walking through different environments and locations. Initially under sighted guide, before placing in context with the training programme reinforcing at all times. (EX1)

### **Family**

The vignette provided to the panel members during this round, indicated that the subject had two grown-up children, one living abroad and the other (who the subject visits every week) living locally with her own family. It is also common knowledge that "family members supply the majority of social care provided in the community" (Rutherford, 2012, p.2) and, therefore, likely that the rehabilitation worker will work closely with and support their client's family members. Four of the panel members identified working with family members as part of the O&M training. An example of this was provided by one panel member who, describing the instruction of sighted guide, stated:

To educate family members so that they have a better understanding of Juliet's eye condition and so that they can guide her appropriately. May also encourage them to think that she can go out if they are educated about what she can see and the benefits of independent mobility. (EX4)

### **Mobility aids**

Although the findings of Study 1 suggest that a large number (84%) of rehabilitation worker clients do not require O&M training (Dodgson and McCall, 2009), the use of a white cane is commonly associated with visual impairment. All of the panel members identified the provision of a mobility aid as a target for the subject of the vignette. The justification

provided for the use of a cane was to improve safety; this fell into two broad categories: to identify and avoid obstacles independently and to declare their visual impairment to others.

One panel member described both of these rationales in the following way:

Use of a cane may prevent Juliet from tripping over the pavement as she may then concentrate on the horizon whilst the cane scans the ground  
Use of symbol cane may stop people bumping into Juliet and act as sign that she may need assistance in shops. (EX4)

### **Orientation**

Orientation for visually impaired people is commonly described as “the ability to use one’s remaining senses to understand one’s location in the environment at any given time” (Jacobson, 2008, p.3). These skills are the fundamental elements of being able to travel safely and effectively. It is important to note that none of the panel members used the word orientation to describe the focus of skills training. However, the term was chosen during the summary process by the researcher as elements of orientation spanned their responses. One example of this was provided by a panel member who stated:

Training to use residual vision effectively in an O&M context will enhance orientation and assist in building confidence when dealing with traffic. (EX5)

### **Other professionals**

The findings of Study 1 suggested that the rehabilitation worker is predominantly autonomous in their working role and rarely seeks permission or approval of any kind prior to delivering O&M training. It was also recognised that the ageing process has a physical impact on the travelling abilities of their older clients. These effects were identified by two members of the panel as needing to be addressed by liaising with other professionals to ensure training was effective. One panel member described the need to work with other professionals in the following way.

Liaise with medical services (GP, physiotherapists) if necessary – to ascertain if the shuffling of feet is a precursor to more significant physical problems e.g. Parkinson's, or dementia, or whether it is a reaction to knowing she has a visual impairment. (EX2)

### **Public transport**

For many visually impaired people “**Registration for sight impairment or severe sight impairment** will normally be regarded as incompatible with holding a driving licence” (Drivers Medical Group, 2012, p.41). This is identified as being of particular frustration to older people (Blasch *et al*, 1997). In recognition of the need to travel greater distances than possible on foot and the value independent travel has on the development of self-esteem and confidence, three of the panel members identified the use of public transport as an element of O&M training required by older visually impaired people. An example of this was provided by one participant who gave the following description.

Local transport training – May be able to visit daughter/friends using public transport, will improve independence and raise self-esteem. (EX4)

### **Road crossing**

All of the panel members suggested road crossing as a target for O&M training. For a number of panel members the personal reasonability element was important to promote; two panel members who documented this stated:

Use of audition for safe road crossing: Focussing attention: Judgement. Identifying safe ‘windows’ in which to cross. Evaluating traffic flow, speed and direction. Client responsibility – Fear of traffic. (EX3)

...to enhance her safety and enable her to decide when to use this technique and apply it to other places. (EX2)

### **Sighted guide**

Sighted guide techniques are commonly known as “the primary travel method in which persons with a visual impairment use the assistance of someone who has vision” (Jacobson,

2008, p.33). These techniques have particular reference to family interactions and older people. Three of the panel members documented a need for training in sighted guide skills aimed at improving safety and promoting independence. One panel member's statement was:

Guiding Skills – So that she can manage people by being in control (to complete this with family living close by). (EX1)

### **The individual**

Although the element of the individual was not identified as a specific target, the theme of the individuality of the client was present in a variety of panel members' responses and, therefore, was created as a theme by the researcher. Two examples of panel reports that included elements of working with the individuality of the client were:

Motivation – For Juliet to have clear aims of what she wishes to achieve – She may need assistance to create opportunities to go out. (EX2)

Improvement of posture and stride length (indoors or park). By working indoors, or in a quite area this should help reduce the possibility of trips and falls as body posture and stride length can reduce shuffling. (EX1)

### **The public**

In many cases public interaction can be essential to psychosocial wellbeing. Within holistic rehabilitation, recognition of the importance of the social environment can be as much about sharing common interests as it is about our general disposition as a social being (Kavanagh, 2006; Oliver, 1996). Identified as a theme that ran through the panel responses, it is perhaps not surprising that the panel members approved the skills to interact with the public as a target for O&M training. Two of the reports from panel members that informed the development of this theme were:

This includes the social element of going shopping and meeting people. (EX4)

It will also enable her to take the initiative in asking for appropriate help.  
(EX2)

## **The senses**

The use of the senses is the means to orientation for a person without sight (Jacobson, 2008; Blasch *et al*, 1997). This was identified in the panel responses as either a theme that was apparent in a number of targets or as an identified target for which specific training was required (n=3). The latter perspective was described by one panel member in the form of a broad target for O&M training in the following way:

Effective use of residual vision and other sensory input for orientation. (EX3)

## **Working together**

Rehabilitation workers naturally develop close working relationships with their clients. A sense of working together was a theme that underpinned many of the panel members' responses. Two examples of this sentiment can be found in the empathic/working together language utilised in the following reports from panel members.

Support to build confidence in judgement using hearing. (EX5)

This will give her confidence and enable her to begin thinking of independence with assistance. It will also enable her to take the initiative in asking for appropriate help. (EX2)

## **Delphi survey – Round 2 results**

In this round of the Delphi process, the panel members were asked to review the compiled responses and the justifications provided during Round 1. They were asked to consider them in relation to the general population of visually impaired older people. When doing this they were asked to consider the relevance of each theme and identify which of these should remain as an independent theme, be consolidated with others or be removed.

All of the panel members (n=5) chose the themes of mobility aids, other professionals and road crossings to remain without modification.

The following themes entitled public transport, assessment, the individual, the senses, orientation, the public, family and sighted guide were also chosen by the majority of panel members to remain. However, some panel members proposed changes or additions and offered the following comments as their rationale:

**Public transport** – one panel member felt this should be considered for removal stating that there was “no indication that any destination requires public transport, but I would review this as training progressed” (EX5).

**Assessment** – it was suggested by one participant (EX5) that this theme “should be ongoing rather than seen as a one-off event, so combines with most things”.

**Working together** – Rationale for combining this theme with others was provided by three panel members who offered the following statements:

I would say this is part of the initial assessment process so should be combined with that. (EX4)

May be agreed at assessment. (EX5)

I would have this as the end of the assessment process if the assessment is done by the RW or as the start of the RW taking on the case if assessed by someone else... I would perhaps leave this as a section on its own and call this planning and implementation. If this is the case it could also be combined with my suggestion about having review and conclusion sections. (EX2)

In light of these responses it was proposed by the researcher that the theme of ‘working together’ was combined with the ‘assessment’ theme. During this round this proposal was accepted and agreed by the panel.

**The individual** – In contrast to the majority, one participant suggested that this theme should be combined with the theme ‘the senses’ “as neither skill set should stand alone” (EX4).



Another participant suggested that this theme should be combined with the assessment process, stating:

I would have these two elements mentioned as part of the assessment process if they were easily dealt with – otherwise I would have separate categories – one for motivation and one for posture/gait. (EX2)

**The senses** – On the whole panel members suggested this theme should remain intact.

However, the diversity of this theme was recognised, with comments suggesting that aspects of it were linked to the assessment process, independent teaching sessions and combined with training events such as road crossings. The comments received relating to the validity of this theme were:

I would deal with assessment of the senses as part of the assessment procedure, and possibly the teaching of the use of the senses as a separate issues, but I would combine the bit about teaching auditory road crossings with the road crossing section. (EX2)

Combines with assessment initially. Also combines in part with other practical sessions. (EX5)

With the individual, as neither skills sets should stand alone. (EX4)

**Orientation** – In direct contrast with other panel members, one panel member suggested this theme should be combined stating:

The aspects identified would be easier to contextualise if combined with other practical sessions. (EX5)

**The public** – Recognised as an essential theme, one panel member proposed that this theme should be “combine[d] with sessions at appropriate stages” (EX5).

**Family** – The majority of panel members recommended this theme remain intact, one suggested, however, that “Family involvement should be directly linked to learning specific skills themselves and observing achievement” (EX5).

**Sighted guide** – in opposition to the majority, two panel members suggested that this theme should be closely linked to working with the family. The statements proposing this combination were:

Combine with family involvement as they are likely to be primary guide.  
(EX5)

With the family training as SG is part of awareness training. (EX4)

In addition to the themes that were already present, one panel member (EX2) suggested a theme entitled ‘review and conclusion of training’ should be included. The justification provided for the inclusion of this theme was:

To enable client, worker, family and responsible authority or contracted agency to be clear about what has been achieved.

To have it documented what the client is safe and not safe to do alone.

To enable the client to view the visits from a professional worker as such rather than as a regular visitor (in some cases to guard against manipulation when the client or family are still afraid that the person will be harmed).

For the worker to have a professional approach to the training – not to have an open ended caseload.

To enable the resources of the agency to be fairly attributed. (EX 2)

The panel member (EX2) included a description of how this theme could be effectively implemented, stating:

To be clear at the start about the aims and to have specific objectives of the training. (Part of the contractual agreement following assessment).

Reviews of the training and requested changes to routes or skills needed should be officially done as reviews, not ad hoc changes.

When nearing the end of training planned, discuss with client how the final stages will be implemented (e.g. I will observe from a distance 3 times more and then you will do the route completely alone and I will meet you at the end – You can try that on your own and I will ring you to see how you got on.

Deal with family and carers who do not believe a person with a visual impairment is safe on their own. If needs be have a meeting and/or enable them to observe the person too with the RW explaining the safety aspects.

Inform the person that the training has now ended.

Inform them that they are able to ask for a reassessment if they need new routes or if they have a further deterioration in vision or other senses – or if their circumstances change.

Make sure they have the contact details.

Ensure that the write up is completed. (EX 2)

In order for the individual contributions to be recognised and respected and for all of the panel members to have the opportunity “to modify or refine their judgments based upon their reaction to the collective views of the group”(Mitroff and Turoff, 2002, p.22), the above comments and recommendations were added to the summaries and returned to the panel members for their review.

### **Delphi survey – Round 3 results**

During this final round the panel members were asked to consider the delivery of services from a service design perspective and identify which of the themes they considered should be core and which were influenced by the unique elements of the individual and were considered to be individual specific themes of an ideal O&M service for older visually impaired people.

Panel members in this round of the survey chose specific elements of the following themes that they considered were core to an O&M service for older people:

- O&M Assessment
- Road crossing
- Public transport
- The individual
- The senses
- Orientation
- The public
- Family
- Sighted guide
- Mobility aids

Only one theme, other professionals, was deemed to be individual specific and, therefore, not a core element of an O&M service. In addition to this, panel members highlighted throughout that the individuality of the service user needs to be respected in all areas of O&M training. In addition panel members were asked if they would like to include any further themes not previously represented and if they had any comments on the themes.

The summary of participant responses, designating elements of each theme as core or individual specific to an *ideal* service offered to older visually impaired people who require O&M training is presented in its entirety in 22 pages of appendices (5.4, Round 1: 5.6, Round 2: 5.8, Round 3). These were presented to the panel members to approve and agree that the content was an accurate representation of their contributions to the survey process.

The results of this round showed that panel members reported that all 11 themes should be represented as core for O&M training with older people to be effective. However, there are a number of elements of each theme that were individual specific.

## **EMERGING THEMES**

It was reported in Study 1 (Chapter 4) that the O&M techniques delivered during rehabilitation worker training present as fit for purpose when delivered to clients similar to those for whom the techniques were originally developed – ex-service men, blinded whilst in active service – or when used as a starting point in an O&M training programme. This method of instruction in which the client is offered the classical techniques as a starting point was an approach that all of the expert panel members of this Delphi survey appeared to be in agreement with. This is perhaps not surprising as the philosophy promoted in the O&M publications is that the classical technique will offer the user the opportunity to maximise the feedback they receive from the cane tip (Jacobson, 2008, Hill and Ponder, 1976) and, therefore, is the established starting point of instruction. Interestingly, this approach to the delivery of O&M training is similar to the finding of Study 1 that rehabilitation worker training has remained consistent since at least the late 1980s. It could be assumed that this is due to the expert panel's responses being informed by literature (as described above). However, it also has to be noted that their prevocational training as rehabilitation workers (1983–2004) was within the range of the Study 1 participants (1989–2005). This would appear to suggest that there has been both a consistency in training and the literature used to inform that training.

The publications of Hill and Ponder (1976) and Jacobson (2008) promote a natural progression in independent travel for visually impaired people that includes the development

of indoor travel skills prior to learning long white cane techniques. Interestingly, this type of indoor mobility training was not considered relevant by the participants of this study. It is not clear why this type of training was not considered, but it is important to note that the vignette used at the beginning of the Delphi survey (see Appendix 5) stated that “Juliet moves around her home and uses the stairs without difficulty”. Therefore, it may be that the focus of the panel members was on outdoor mobility and that indoor training was not considered relevant in this case. On the other hand, this may indicate an underlying philosophy of O&M training in which the type of techniques such as sighted guide, indoor and long white cane are chosen by the rehabilitation worker to suit their client’s situation; whereas, the individual elements of these techniques are considered to be interdependent and, therefore, delivered in their entirety. This also appears to be the general philosophy when considering the design of an O&M service for older people. There were 11 core themes: O&M assessment, road crossing, public transport, the individual, the senses, orientation, the public, family, sighted guide and mobility aids identified during this survey as integral to a good practice model of O&M service delivery designed to meet older visually impaired people’s travel needs. With the exception of indoor travel techniques (such as self-protection), negotiating the use of cars and commercial features (escalators, revolving airport terminals etc.) these broad themes match those presented in the seminal text of Hill and Ponder (1976) ‘Orientation and Mobility Techniques, A Guide for the Practitioner’.

It is interesting to note that whilst these themes in some way match the technical publications, the majority of the domains identified by the experts focussed on the development of the older visually impaired person’s personal skills (such as orientation techniques, road crossing and dealing with the public). However, as literature suggests that older people have high levels of resilience when faced with adversity, loss and decline when experiencing a visual impairment

(Edwards *et al.* 2012), an older person may present a stoic acceptance of their situation in order to cope. Resilience of this type could lead to any offers of training to develop their personal skills being declined. For the practising rehabilitation worker experiencing rejection of O&M training, the good practice guidelines (developed during the final round of this study) may seem to place a great deal of emphasis on skills training that is rarely accepted. However, the findings of Study 1 showed that the prevocational training the participants experienced focussed upon long cane training. Whilst they acknowledged that this long cane training was only suited to younger clients with visual impairments for whom it was originally developed (see Chapter 2, Literature Review), they felt the complexity of the skills warranted the central focus it was given in their training. Therefore, the good practice guidelines developed during this study, whilst not applicable to every older visually impaired person, offers the rehabilitation worker an underpinning knowledge which supports their work with older people (who form their predominant client group).

During the summary rounds all of the participants had an opportunity to review their own contributions and those of others. Interestingly, whilst some of the participants took this as an opportunity to refine or add additional detail, at no time did any of the panel members disagree with or challenge comments made by their peers. Whilst the Delphi process is designed to counter group working (as discussed previously) influences, this may be an indication that panel members felt unsure that their anonymity would be maintained; this is discussed in detail below. However, it may also be the case that to the members of this panel, the subject of O&M strategies for older visually impaired people is uninspiring. Although it has been established in the literature review and the findings of Study 1 that this sector of society make up the largest client group for the rehabilitation worker, this does not mean that the rehabilitation worker finds this the most interesting and stimulating client group to work

with. Unlike working with client groups that may be more emotive, such as visually impaired children or groups with complex needs such as additional disabilities, the thought of working with older visually impaired people (who may not travel extensively and who appear quite resilient) may not be appealing and motivating. However, until now there has been very little empirical evidence of the type of O&M training older visually impaired people require.

Therefore, the findings of this study may not appear innovative but they do offer a firm foundation of knowledge that supports rehabilitation practice. Now that this has been established, expert panels of further Delphi-style studies have a foundation upon which they could consider developing innovative strategies of O&M for older visually impaired people.

Unlike subjects in which experts are defined by their ability to exhibit a level of performance considered superior to others, such as chess masters, musicians and medical professionals, the field of rehabilitation is more reliant on expertise being defined by characteristics such as “skills and knowledge that distinguish experts from novices and less experienced people” (Ericsson, 2009, p.3). Therefore, the criteria upon which the members of the expert panel were chosen was their knowledge and experience of the subject, access to relevant information, autonomy and ability to contribute, and their communication abilities (Brown, 1968; Skulmoski, *et al*, 2007). It is important to bear in mind that as these experts were experienced in the education and training of rehabilitation workers, the focus of their expertise may be more academic than practical. This is an issue identified in Dreyfus and Dreyfus’s observation of (expert) pilot instructors in which expert pilots recruited as trainers quickly replaced their expert instincts with novice behaviours in emergency situations (Benner, 2001; Dreyfus and Dreyfus, 1986; Tsui, 2003). Although the members of the expert panel were qualified rehabilitation workers, at the time of participating in this study they held positions as educators and trainers; it is unclear how much influence these contrasting roles



had on the formulation of their responses, an issue eluded to by Franks (2000) who proposed that the providers of training should regularly second their staff to practical rehabilitation activities to improve the vocational application of the courses they deliver.

The findings of Study 1 reported that the term most often used to describe the rehabilitation worker's major client group is older people. With this term being used to describe those people over 65 years of age with the late onset eye condition AMD, a vignette was developed to focus the expert panel's attention on this particular client group. This vignette describes a client of 73 years of age with AMD, which all the participants of this study confirmed as a 'very typical' (n=3) or 'typical or fairly typical' (n=2) representative of a rehabilitation worker's predominant client group. This will undoubtedly have influenced their responses in the initial rounds; however, in the latter rounds of this survey the panel was asked to consider the general population of older visually impaired people. Whilst this may have caused them to consider some older people who have other causes of sight loss (e.g. early onset), it is likely that the participants also used the common terminology (that older people tends to refer to people over 65 with AMD) when considering the wider population of older visually impaired people.

There are close links between rehabilitation work and the professions of social work and occupational therapy (Franks, 2000). However, the one theme that was developed by the panel but relegated to an individual specific element was working with other professionals, suggesting that O&M training is considered amongst the rehabilitation community as an activity independent of other professional support. This type of independence and solitary working may be indicative of the independent evolutionary development of the profession from home teachers to rehabilitation workers (Franks, 2000; Pavey, 2011) but is likely to be

compounded by a sense amongst rehabilitation workers that O&M is a specialism where the techniques must be adhered to (as reported in Chapter 4). In spite of this it was evident that there was a level of consistency of opinion amongst the panel members on what constitutes good practice. A consistency that mirrored and may be at the root of the consistency in training found in Study 1 (Chapter 4).

## **METHOD EVALUATION AND REFLECTION**

Limited knowledge exists to support the theory of O&M training with older visually impaired people (see Chapter 2: Literature Review). This presented an ideal opportunity for the use of the creative and predictive Delphi process (Robson, 2011). However, the close links that were found between O&M theory and the responses received throughout this study (as discussed above) has questioned the opportunity for this method to facilitate creative thinking in this situation. Whilst it would not be possible within the field of rehabilitation (due to the small number of indefinable experts) to increase the diversity of the expert panel, the implications a limited field of experts had on the findings produced during this survey needs to be considered. This would suggest that the effectiveness of the Delphi method is influenced by the size and diversity of the expert panel.

Another celebrated feature of the Delphi process is the distance created between the researcher and the participants; however, as discussed in Chapter 4, the support required by participants with limited experience of taking part in research programmes (in this case focussing the participants on ideal, good practice) is stifled by this. Therefore, it is perhaps not surprising that the data generated by the expert panel has such close links to the theory of O&M. Although this could jeopardise the transferability of the findings, the application of these good practice guidelines was intended for training providers, students and rehabilitation

workers to use as a theoretical knowledge base to compare, contrast and validate their practice. As the expert panel were selected from training providers, they all hold qualifications as rehabilitation workers which would suggest that the transferability of the findings is secure. However, the ability to transfer data to another context is not guaranteed and, therefore, further publications may be required to facilitate this process.

A major strength of the Delphi process is the member checking opportunities through the process of iteration following each of the rounds, a process which also values individual contributions and, therefore, requires all participant responses to be represented. This opportunity for the participants to check and review the responses secures the credibility whilst also managing researcher bias during the data capture and analysis process. In addition to this process offering limited opportunity for researcher involvement, it promotes confirmability through the inclusion of all of the participant responses, including negative ones.

Another key feature of the Delphi process is the anonymity of the participants. Each of the panel members provides their response independently; however, following this process they have the opportunity to view the responses submitted by all of the panel members. Whilst the freedom from influence is present in this method, the field of vision rehabilitation is very small; therefore, there may be the opportunity for some participants to speculate who the other members of the panel are, or attribute certain responses to other professionals they know. In such a small field of practice, selecting participants for this study was restricted; however, taking this issue into account identifies the opportunity for participant influence, which in turn indicates the importance of managing the selection of Delphi panel experts.

## CONCLUSION

In this chapter the method of delivery, data collection and findings of a Delphi Study were presented. The focus of this study drew on the recommendations of Study 1 (presented in chapter 4 of this thesis) to explore expert opinion on what constitutes good practice in the delivery of O&M to older visually impaired people. This was to be achieved by asking the question: How do experts define good practice in relation to O&M training with older visually impaired people?

The Delphi survey method uses a process of iteration to refine the responses of a group of experts whilst countering the possible implications of face-to-face group work. The distance this creates between the participant and the researcher offers an opportunity to challenge researcher influence. In addition, researcher bias is equally managed by the process of panel validation of summarised responses. During the three rounds of this Delphi process the summaries prepared by the researcher were validated as an accurate representation of the answers provided by the panel members.

The findings of this study suggest that there is a core of activities that should be considered as good practice when delivering O&M services to older visually impaired people. Consisting of 11 themes – O&M assessment, road crossing, public transport, the individual, the senses, orientation, the public, family, sighted guide and mobility aids – these broad themes are considered to be generalisable to the population of older people experiencing a visual impairment.

It was interesting to find that the long white cane technique of two-point touch (included in the broad theme of mobility aids as an individual specific element) that the findings of Study

1 suggested was consistently delivered in rehabilitation worker training, was not considered by the expert panel to be core to the services provided to older visually impaired people.

Establishing a good practice perspective from experts in the field of rehabilitation has offered the panel members an opportunity to have access to the information provided by their peers and their own participation recognised. Feeding back in this manner to training providers in order to promote reflection and change was of interest to the researcher. It is important to note, however, that although the expert panel had experience of working practice, their contributions to this survey may be influenced by their current academic focus on the subject.

## **RECOMMENDATIONS**

The findings of this study have produced a set of good practice guidelines for the delivery of O&M training to older visually impaired people, based on the opinions of recognised experts in the field of rehabilitation. For these guidelines to be effective, the relevance of these themes to practice requires further study. Matching the theoretical ideology of rehabilitation worker training to the experiential reality of meeting the needs of visually impaired people is vital if these themes are to be accepted by the rehabilitation community and assimilated into rehabilitation worker training.

Chapter 6 of this thesis presents Study 3, rehabilitation workers' experiences of delivering O&M training to older visually impaired people. Using the themes of good practice developed during Study 2, Study 3 surveys practising rehabilitation workers' opinions, investigating the reality of working with older people in order to bridge the gap between theoretical ideology and practical application.

## **CHAPTER 6: STUDY 3**

### **REHABILITATION WORKERS' EXPERIENCES OF DELIVERING O&M TRAINING TO OLDER VISUALLY IMPAIRED PEOPLE**

#### **CHAPTER OVERVIEW**

Presenting the findings of the third sequential study, this chapter begins by establishing the logical progression of the three studies presented in this thesis. To understand the evolution of the research questions it was considered important to contextualise the development of the aim of this study and its emergence from the findings of Study 2. Therefore, a brief review of the outcomes of the Literature Review (Chapter 2) is followed by an overview of the aims and research questions of Study 1 and 2.

Study 2, defined 11 domains of good practice required for effective O&M training with older people (family, mobility aids, public transport, assessment, orientation, sighted guide, other professionals, the individual, road crossing, the public and the senses). This 'expert' generated theoretical model provides a possible framework for the vocational knowledge required by the rehabilitation worker to support this client group. However, for these guidelines to be relevant and applicable to practice, these theories need to be combined with the functionality of problem-centred reality (Schraagen, 2009). These findings and the subsequent premise informed the development of this study's broad aim, which was to capture a range of rehabilitation worker experiences of delivering O&M training to their predominant client group, older visually impaired people.

The chapter progresses with a description of the recruitment process that attracted a geographically and experientially diverse, self-selecting sample of practising rehabilitation workers, of whom 29 undertook telephone interviews. Basing the design of a flexible telephone interview schedule on the experience and findings of the subsequent studies (see

Chapters 4 and 5), this chapter goes on to describe this method and the interview process and structure. Generating 29 digital recordings, on average 53 minutes in length, the data from these semi-structured interviews was transcribed verbatim and transferred for analysis using the QSR NVivo 10 qualitative analysis software.

Continuing with details of a grounded approach to data analysis, this chapter presents the three stages (open, axial and theoretical coding) of analysis. After initial coding of the data using each of the 37 interview schedule questions, 19 Axial themes emerged. These were further analysed through a final theoretical coding process identifying 33 emergent categories.

Following this, the chapter goes on to discuss the emerging themes of the study which uncover the complexity of the close working relationships that not only appears to be integral to the effectiveness of the rehabilitation worker, but also transgresses the novice application of rule-governed skills-based training of O&M to the expert's contextualisation of the biopsychosocial situation of the older visually impaired person.

Finally this chapter concludes by considering the three studies presented in this thesis in relation to the emerging themes.

## **RESEARCH AIM**

The focus of this study emerged from the findings of the previous studies and the ongoing monitoring and review of literature which spanned the three studies presented in this thesis. Therefore, to understand the development of the research aim and question of this study (Study 3) it is important to revisit the previous findings, offer a brief overview and contextualise the emergence of the aim and research question of Study 3.

Described in detail in the Literature Review (Chapter 2), the origins and scope of rehabilitation services for visually impaired people and the role of the rehabilitation worker in the UK have been extensively documented by Pavey (2011), Villeneuve-Smith (2002), Franks (2000), Dodds (1996). Amongst these, Franks' 'Birmingham Study' stands out as seminal in its charting of the development of the visual impairment rehabilitation profession. Whilst commending the historical gravitas of this profession, Franks (2000) warns of the fragile epistemic underpinning of the therapeutic activities employed by rehabilitation workers. As discussed in Chapter 2, there has been a lack of research focussed on the rehabilitative intervention designed to challenge the impact a visual impairment has on an individual. It is now over 13 years since Franks called for "a sound research base upon which practice may reliably rest and thereby be enabled to move forward with confidence" (*ibid*, p.213). Subsequently this dearth of literature on the subject has left rehabilitation workers and their training providers with no other option but to continue with Franks' assumption that "the technical rehabilitation interventions that appear to have become a largely '*taken for granted*' part of the folklore surrounding rehabilitation worker training" (Franks, 2000, p.208) are fit for practice.

Thirteen years on from the work of Franks (2000) there is still little evidence to establish the relevance of rehabilitative techniques and strategies for people living with a visual impairment in the UK. With the broad aim of this thesis being to meet the challenge offered by Franks, the three studies presented herein aimed to:

- explore the professional activities of the rehabilitation worker; and
- analyse the O&M practice of the rehabilitation worker.

This programme of research has three distinct studies.



### **Study 1 – Aim and research question**

Finding very little empirical evidence to support rehabilitation practice Study 1 (2006–2009) aimed to explore the rehabilitation worker's experiences and opinions of their practice and the training they received. Seeking answers to the question: In what ways do rehabilitation workers think their professional training aligns with their professional practice and client needs? Finding that the techniques delivered during the rehabilitation workers prevocational required adaptation to suit the needs of older visually impaired people, a gap between theory and practice was uncovered.

### **Study 2 – Aim and research question**

O&M techniques by their very nature need to meet the common and shared needs of people with visual impairments. Therefore, Study 2 (2009–2010) of the research programme aimed to progress the Study 1 line of enquiry by investigating the 'experts' perspective of what constitutes 'good practice' in the rehabilitative delivery of O&M training to older people, asking the fundamental question: How do experts define good practice in relation to O&M training with older visually impaired people? The good practice domains the experts identified, were family, mobility aids, public transport, assessment, orientation, sighted guide, other professionals, the individual, road crossing, the public and the senses.

### **Study 3 – Aim and research question**

Study 3 (2010–2012) of the research programme utilised the Study 2 domains of practice as a basis for a semi-structured, flexible telephone interview schedule. These interviews were designed to investigate the practising rehabilitation worker's experiences of delivering O&M training to older people, seeking to answer the question: How does a rehabilitation worker's experience of practice align with the good practice defined by experts? Addressing the fundamental questions of relevance and professional expertise, the broad aim of this study

was to explore the practical application of the classical O&M techniques by investigating rehabilitation workers' experiences. To achieve this, the interview process focussed on the core themes identified in Study 2 to explore the rehabilitation workers':

- 'real life' experiences – illustrating each of the core themes (identified in Study 2);
- opinions of the differences they experience working with visually impaired older people and younger adults in each of the core themes; and the
- experiences of barriers to effective working with visually impaired older people.

## **METHOD**

### **Ecological credibility, transferability, dependability and confirmability**

A lack of evidence-based research not only leaves little substantive literature upon which the professional can validate and develop their practice, but also a lack of a research culture. Similar to the erroneous memory and misunderstanding opportunities presented when using self-completion questionnaires (Robson, 2011), a lack of research within a field may lead to inexperience in the recalling of events and experiences by the participant, and a misunderstanding of their role within the research process. An effective challenge to this issue is the fostering of 'connectivity' between the participant, the subject of the research and the researcher (Bannister *et al*, 2002). A connectivity of this type was achieved in this study as (see the previous studies presented in this thesis). The researcher is well known as a practitioner in the field of rehabilitation and was therefore "in the world and of the world...[of rehabilitation]...[bringing]... biographies to the research situation" (Cohen *et al*, 2007, p.171). In addition, to capture the "real-life" experiences of the participants and for the data to truly represent "accurate portrayals of the realities of social situations" (*ibid*, p 138), the interview questionnaire provided opportunities for discussion through the use of

predominantly open questions. The richness and complexity of detail retained in this process promoted the ecological credibility and transferability of the data though the retention of “as many characteristics in, and factors of, a given situation” (*ibid*, p.138) as possible.

However, this ‘insider’ style researcher connection brings with it an undeniable level of subjectivity and although this is a natural element of qualitative research, it is vital that outcomes are valid. Endeavouring to secure greater rigour, the participant responses were digitally recorded, coded for anonymity (known only to the researcher) and transcribed verbatim, a process designed to control bias by making researcher influence highly visible and accountable (Bannister *et al*, 2002). In addition to this, the research method was supervised by Dr Steve McCall, Dr Graeme Douglas and Professor Michael McLinden of the University of Birmingham, a process that acted as a barometer of consistency in the evaluation of both the ecological credibility and transferability of the data and the dependability and confirmability of the research methodology.

### **Sample recruitment**

For the findings of this study to produce practice-based paradigms relevant to older people – the rehabilitation worker’s major client group (see Chapter 4: Study 1) – a theoretical sampling process in which “the persons interviewed, or otherwise studied, are chosen to help the researcher formulate theory” (Robson, 2011, p.149) was adopted. However, recent reports estimate the population of rehabilitation workers to be between 378 in England (RNIB, 2013d) and 450 (Rehabworker, 2008) to 650 (The future of Rehab meeting, 2012) across the UK. With such low numbers and very little in the form of research, academic writings or conference presentations being produced by this small field, the selection criteria for identifying a theoretical sample was limited. For this study the criteria adopted was that used

for the selection of the expert panel in Study 2 (see Chapter 5, Expert opinion of good practice O&M training with older visually impaired people), being the “four requirements for ‘expertise’: i) knowledge and experience with the issues under investigation; ii) capacity and willingness to participate; iii) sufficient time to participate...and, iv) effective communication skills” (Skulmoski *et al*, 2007, p.4). In contrast to the purposive selection of the expert panel for Study 2, the strategy employed for this study was one of self-selection, in which the participant would judge their interest in the subject (knowledge and experience) and whether they had the time, willingness and communication skills to participate.

To recruit participants with an interest in the subject, an open invitation (see Appendix 6.0) was placed in the media considered to be most accessible to the rehabilitation worker. In addition to NB magazine (long considered the trade magazine for rehabilitation workers) and [www.rehabworker.co.uk](http://www.rehabworker.co.uk) (a website providing a forum for vision rehabilitation professional issues since 2006) (Rehabworker, 2008), the invitation was distributed to the Social Care Association (who at that time was a representative body for rehabilitation workers) for issue to their members, and to a number of rehabilitation worker forums around the UK.

### **Self-selecting participants**

Sixty three practising rehabilitation workers from throughout the UK and Scotland replied to the advertisement. Upon receipt of their expression of interest, each one was sent a participant brief by e-mail (see Appendix 6.1). Alongside the researcher’s contact details, this document provided details of the researcher’s relationship with the University of Birmingham; a description of the aim of the study; explanation of the possible benefits of contribution; the process of data gathering; and statements of commitment, confidentiality and the participants right to withdraw. This document also offered to provide details of the participation

requirements for line managers. Accompanying the brief was a general information questionnaire (GIQ) (see Appendix 6.2) asking participants to provide details of their name, age and gender along with details of work and educational attainment. Also included were basic questions about the age range of their major client group, what terms they use to describe their client group (adults, older people, elderly people etc.) and which activities (based on the Study 2 domains, see above) they provided to their predominant client group. At the end of this document the participant was asked to indicate if they were willing to take part in a telephone-based interview.

Fifty one rehabilitation workers completed and returned the GIQ. Upon receipt of the GIQ, participants were issued with a Further Information Questionnaire (FIQ) (see Appendix 6.3), designed to capture quantitative data about the rehabilitation workers' general practice that was considered to be in addition to the qualitative interview. This questionnaire requested information about the participant's working practice such as numbers of team members who are qualified rehabilitation workers and supervision arrangements. The questionnaire also requested details of the participant's caseload, working practice relating to management of the caseload and details of the percentages and demographics of clients within the age ranges of under 50, 50–64, 56–74, 75+. This was followed by questions about the number of O&M training sessions provided to specific age groups, the length of the sessions and the client's motivators. Finally, they were asked about their relationships with other professionals and working practice guidelines. Although this questionnaire was issued by e-mail, Oppenheim's (2005) prediction of low response rates to postal questionnaires proved accurate with 20 rehabilitation workers returning completed FIQ's. This small number of responses raised concerns over the suitability of this type of data capture tool. In light of this, the reliability of

this methodology in this instance became questionable and a decision was made to exclude the request for completion of the FIQ from the study.

The geographic range of the sample was admirable; however, with participants offering to contribute from across England and Scotland, the costs of a face-to-face interview strategy were beyond the financial constraints of a self-funded doctoral study programme. Although there are a number of debated contextual influences that confound the value of interview data, the opportunity “of learning about the social world” (Miller and Glassner, 2004, p.126) this methodology offers is seductive. Therefore, a telephone interview methodology was considered a fit-for-purpose solution (Oppenheim, 2005).

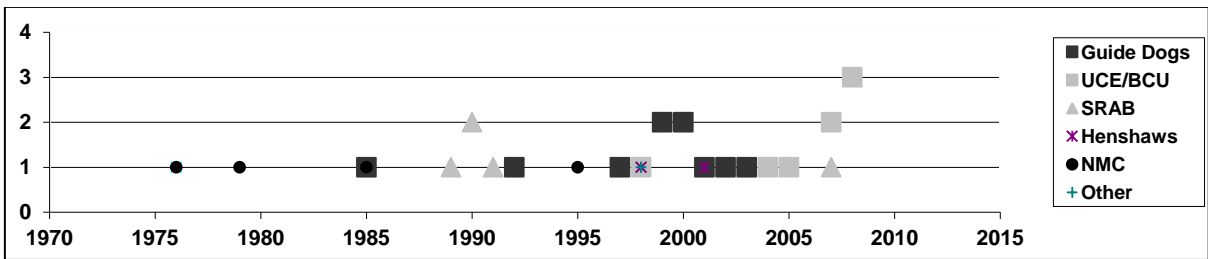
By adopting a telephone interview process and creating distance between the researcher and participant, whilst countering the “non-verbal paralinguistic cues...[that]... affect the conduct, pacing and relationships in the interview” (Cohen *et al*, 2007, p.153), this method offered the opportunity to increase reliability through control of the influence or reactivity created by the body language and power relationships often present in face-to-face interviews (Maxwell,1996). Likewise, this distance between interviewer and interviewee offered the opportunity for digression to be managed and the focus of the survey to be controlled, contesting the standardisation issues of face-to-face interviews which can challenge reliability (Robson, 2011). Equally as important, the flexibility and ease of access offered by telephone interviewing suited the need to fit the interview into the busy schedule of the working professional (Cohen *et al*, 2007).

The 51 participants who originally completed the GIQ were contacted by e-mail. In addition to a direct proposal of an interview date and time, they were also once again provided with the

participant brief. Twenty nine rehabilitation workers responded and subsequently undertook telephone interviews.

Twenty two of the participants were employed in the statutory sector of social services with the remainder (n=7) in the voluntary sector (local and national charities). The ages of the participants ranged from between 33 and 63 and, of the 29, 20 were female (male=9).

Eighteen participants held a Dip HE accredited by the University of Birmingham (Guide Dogs) or the UCE/BCU. The remainder of the participants possessed either a rehabilitation worker (n=6) or O&M instructor (n=4) certificate (see Figure 5).



**Figure 5: Study 3 – qualification timeline of participants**

In all, 20 of those rehabilitation workers interviewed had undertaken post-qualifying training, ranging from BSc (Hons) degrees to non-accredited in-house continued professional development.

To gain perspective and to qualify the rehabilitation worker’s experience of the subject to be discussed, participants were asked to estimate the size of their current caseload. The caseloads held by the participants ranged from 10 to 70 with an average estimated to be 20. The average number of clients on participants’ caseloads that were over the age of 65 was estimated at 75%.

## **Reporting protocol**

The procedure of numerically coding the participants' responses to recognise the individuality of contributions and to aid readability used in Chapters 4 and 5 will be continued in this chapter. Therefore, the participants have been allocated the following numerical codes: 1RW–29RW. In addition, when presenting common perspectives and themes the quantifiers of Pavey (2011) have been adapted to represent multiples in the following manner: 1 participant singular, 2 or more as 'a few', 5 or more as 'some', 10 or more as 'many', 20 or more as 'most' and all of the participants as 'all'.

## **Interview schedule and procedure**

Following the advice of authors such as Robson (2011) that “ the distinctive feature of...interviews is that they are highly structured” (p.261), the interview schedule for this study (see Appendix 6.4) was structured around the domains identified in Study 2: family, mobility aids, public transport, assessment, orientation, sighted guide, other professionals, the individual, road crossing, the public and the senses.

Aiming to investigate the real life functionality of each of the above domains, the focus of the interview was established during the introduction when each participant received the following request: 'As the role of the RW is so wide ranging I would like to ask you a few general questions about your practice with older people followed by some specifically about O&M with older people'. Having introduced the session, the interview schedule (see Appendix 6.4) was delivered in chronological order.

This enquiry strategy employed the use of open and closed questions to investigate differences in working practice experienced by the participant when working within each domain with specific client groups (older people and younger adults).



Closed questions were developed to offer the participant the opportunity to “understand the intent of the question” (Oppenheim, 2005, p.112) and subject. This was immediately followed with an open question to enable the participant to “let their thoughts roam freely” (*ibid*, p.113) and thus talk about aspects of an event that they deemed to be important and relevant. An example of how such an approach was used is presented below in relation to assessment:

**Assessment** – Is your process of assessing an older person the same as your process of assessing younger adults?

If No – What do you do that is different when assessing an older person compared to when you are assessing a younger adult?

If Yes – What are the main features of an effective assessment process?

Prompt: That sounds interesting; can you give me a specific example?

### **Pilot Study**

Study 2 of this research programme culminated in the consensus of (expert) opinion that the core domains of a rehabilitation worker’s focus when addressing the O&M training needs of an older person are family, mobility aids, public transport, assessment, orientation, sighted guide, other professionals, the individual, road crossing, the public and the senses. These domains, developed by an expert panel of predominantly training professionals may be construed as reflecting the ‘ideal – good practice’ perspective commonly associated with theoretical paradigms. Therefore, for this research programme to achieve its aim of laying the foundations of an evidence base that is relevant and accessible to both practising professionals and training providers, the real life functionality of these domains must be tested. To this end, the above 11 domains were utilised as topics for the Study 2 interview schedule (see Appendix 6.4) around which a number of questions were developed. To establish a basis of reliability and rigour; to ensure the survey questions were focussed and answerable; and to “uncover any aspects of the questions that will cause the interviewer...to have difficulty” (Foddy, 2001, p.185), the interview schedule was piloted with three practising rehabilitation

workers known to the researcher and selected as a small sample of the target population. This pilot involved the distribution of the interview schedule to the pilot participants, and through a telephone discussion their opinion was sought about the interview wording and structure as well as predictions of the responses the schedule would generate. The feedback received from the pilot participants was generally positive, although there was much discussion and enthusiasm about the anticipated responses there were no proposed changes made to the interview schedule.

### **Qualitative analysis**

Twenty nine telephone interviews, lasting on average 53 minutes (shortest=34 minutes 55 seconds, longest 1 hour 28 minutes 36 seconds) were digitally recorded, coded, (known only to the researcher) and stored electronically. To ensure the richness of this data was respected, each interview was transcribed verbatim and transferred to the QSR qualitative analysis tool NVivo 10. The interview transcripts were processed through what Holton (2007) describes as the “two types of coding [of] a classic grounded theory study: substantive coding...and theoretical coding (p.265), in this case open (substantive) and axial and theoretical (theoretical) coding stages.

There appears to be some debate regarding a definitive process of analysis for grounded theory data. Robson (2011) is in agreement with Charmaz (2010) that the first stage of the process is that of open coding, a stage in which the data is grouped and labelled by “naming each word, line or segment of data” (Charmaz, 2010, p.46). Charmaz goes on to describe focussed coding as “the second major phase of coding” (*ibid*, p.57) describing it as “using the most significant and/or frequent earlier codes to sift through large amounts of data” (*ibid*). In contrast, Robson (2011) chooses as the second process (which Charmaz separates as the third

and fourth stages of coding) “Axial, or *theoretical* coding” in which “the categories developed through the process of open coding” (p.490) are linked together. Finally Robson (2011) suggests that selective coding is the ultimate stage of the process in which “the *core category*” (p.491) is exposed as the focus of the grounded theory.

For this study these two perspectives were combined to offer a logical progression to the grounded analysis of data.

- Open Coding – Firstly, the data was exposed to a process of line-by-line review.
- Axial Coding – Secondly, the data was subjected to a process described by Charmaz (2010) in which “coding relates categories to subcategories, specifies the properties and dimensions of a category, and reassembles the data you have fractured during initial coding to give coherence to the emerging analysis” (p.60).
- Theoretical Coding – Finally the data was processed through a stage of theoretical coding that Holton (2007) eloquently describes as occurring “when the relationships among individually elaborated concepts emerge through the identification and use of appropriate theoretical codes to achieve an integrated theoretical framework for the overall grounded theory” (p.283).

### **Open Coding**

In the search for patterns “among incidents that yield codes” (Holton, 2007, p.275), the open coding phase involves the summarising of data in “every way possible” (*ibid*) with a short name or category that aims to expose what the data means. However, as the theory evolves from the data, the promotion by Charmaz (2010) of Glaser and Straus’ invitation for researchers to “use grounded theory flexibly in their own way” (1967, p.9) appears to offer an opportunity for this method to be adapted and to evolve with the research. Embracing this

thinking, the focus of data collection in this study was clearly defined by the questionnaire (see above) prior to data collection and, therefore, the initial codes required for this phase of categorisation were already established. As expected, the telephone interview data did not fall neatly into each question category; at times the discussions digressed to topics previously or not yet discussed. To manage this, during the open coding stage of the analysis every participant response was reviewed by the researcher and compared with each question asked. Each response was then classified, not only by its relevance to the question asked, but also its relevance to other questions in the schedule. This process allocated between three and 123 participant responses (a total of 1315) to the 37 schedule question categories (Table 5).

**Table 5: Study 3 – Open coding categories and response rates (presented in the interview schedule order)**

Question Categories	Number of participants (max 29)	Number of references
1. No difference in working practice between older people and younger people	11	18
2. Differences in working practice with older people	29	123
3. Differences in working practice with younger people	20	40
4. Motivators for O&M training U65	29	67
5. Motivators for O&M training 65 to 79	29	61
6. Motivators for O&M training 80+	29	55
7. Assessment General	14	18
8. Assessing Older People	28	76
9. Assessing Younger Adults	17	30
10. Including Family Members in work with Older People	28	64
11. Problems when including Family Members – Older People	25	40
12. Including Family Members – Younger Adults	27	48
13. Orientation Training – Older People	27	48
14. Orientation Training – Younger Adults	13	21
15. Sensory Development Training – Older People	25	47
16. Sensory Development Training – Younger Adults	13	15
17. Sighted Guide Training – Older People	28	57
18. Sighted Guide Training – Younger Adults	3	3
19. Cane Training – Older People	29	52
20. Cane Training – Younger Adults	6	8
21. Long Cane Adaptations – Older People	29	52
22. Road Crossing Training General	10	15
23. Road Crossing Training – Older People	24	42
24. Road Crossing Training – Younger Adults	8	10
25. Public Transport Training – No Difference between age groups	10	10
26. Public Transport Training – Older People	22	34
27. Public Transport Training – Younger Adults	7	7
28. Training in dealing with the public – Older People	27	55
29. Training in dealing with the public – Younger Adults	15	18
30. Electronic Mobility Aids General	3	3
31. Electronic Mobility Aids Training – Worker Knowledge	8	10
32. Electronic Mobility Aids Training – Older People	25	36
33. Electronic Mobility Aids Training – Younger Adults	2	3
34. Training Reviews – General	23	32
35. Training Reviews – Older People	12	18
36. Training Reviews – Younger Adults	5	5
37. Barriers to working with Older People	29	73

## **Axial Coding**

The aim of this study was to explore rehabilitation workers' experiences of working with and delivering the rehabilitative intervention of O&M training to older visually impaired people. Based on the themes of good practice developed by the experts surveyed in Study 2, the open coding was progressed to establish the causal relationships between what the rehabilitation worker does (open/initial codes) and how they do it (theoretical codes) and thus, moving closer to the development of grounded theory, the data was analysed through an axial coding process. This stage of the analysis sought to expose the "dense texture of relationships around the 'axis' of [each] category" (Strauss, 1987, p.64). In doing so the previously "fracture[d] separate pieces and distinct codes" (Charmaz, 2010, p.60) were once again analysed to expose the "concepts [that] specify the dimension of the larger category" (*ibid*, p.61). This axial coding activity identified 19 themes (see Table 6) that permeated the participant responses and contained between 10 and 346 references (total of 1629). The reliability of these themes was tested through literature referencing and supervisory collaboration with the University of Birmingham (see Chapter 3, Methodology); both of these activities challenged researcher subjectivity and promoted the development of themes that reflected the content of the data.

**Table 6: Study 3 – Axial coding themes and response rates (presented in alphabetical order)**

Axial Code	Number of participants raising the theme	Number of references
1. Aging	29	227
2. Anxiety	6	10
3. Benevolence	16	21
4. Confidence	22	55
5. Control	28	78
6. Expectation	16	30
7. Exceptions to the Rule	16	26
8. Experience and Knowledge	25	47
9. Fear	16	33
10. Individuality	22	46
11. Motivations	29	100
12. Pedagogy	29	346
13. Professional Critique	26	105
14. Relationships	11	20
15. Respect	25	66
16. Safety	27	62
17. Social Isolation	29	164
18. Stoicism	29	138
19. VI Condition Issues	24	55

### **Theoretical coding**

Theoretical codes as described by Holton (2007) “conceptualize how the substantive...[in this case the initial and axial]...codes may relate to each other as hypotheses to be integrated into the theory” (p.283). In this study the properties of the 19 axial coding themes that were populated with data by most or all of the participants (respect, stoicism, ageing, pedagogy, professional critique, motivations, safety, social isolation and control) were analysed to generate 33 theoretical categories containing between five and 115 references (n=1099) (see Table 7). Once identified, each theoretical category was evaluated by the researcher and the project supervisors to secure agreement on the reliability of the process and the credibility and transferability of the analysis.

**Table 7: Theoretical coding and response rates (presented in alphabetical order)**

Theoretical Category	Number of participants raising the theme	Number of references
1. Acceptance	12	21
2. Adaptation of O&M techniques	22	48
3. Adjusting the Pace of interaction	20	50
4. Belonging as a motivator for training	23	41
5. Client Inflexibility	18	56
6. Collaborative Working practice	23	40
7. Didactic instruction	15	30
8. Flexibility of worker Practice	15	21
9. Functional impact of Physical Frailty	28	115
10. Functional impact of Psychological Frailty	19	35
11. Functional impact of Sensory Loss	21	41
12. Importance of Relevance in training	25	81
13. Influence of Peers on Older People	10	15
14. Kinship emotional support	21	38
15. Lack of motivation in older people	10	21
16. Motivation role of the RW	18	33
17. Observation of performance	9	14
18. Personal Ability and learning	16	24
19. Physiological motivation	20	36
20. Promoting Client Power	14	20
21. Protective families	19	29
22. Public Knowledge of rehabilitation	14	24
23. Reflection as a method of learning	4	5
24. Repetition as an instructional strategy	7	11
25. Repudiation in older people	22	45
26. Social Activities a challenge to isolation	23	49
27. Social Care and rehabilitation	19	38
28. Social Norms in practice	9	15
29. The Profile of the profession	15	27
30. Torpidity in older people	17	26
31. Traffic safety	13	17
32. Using Demonstration Techniques	10	12
33. Worker Behaviour and Manners	13	21

## RESULTS

The initial open coding phase utilised the telephone interview schedule to collate and structure the participant responses. These preconceived codes, more commonly akin to quantitative research methods (Charmaz, 2010), were the first stage of a process that aimed to distil the data prior to a more “selective phase” of making “the leap from concrete events and descriptions of them to theoretical insight and theoretical possibilities” (Charmaz, 2010,



p.71). Therefore, in order to “tell an analytic story that has coherence” (*ibid*, p.63) this chapter progresses with a detailed description of the axial and theoretical codes – each with an illustrative example – that “move[s] [that] analytic story in a theoretical direction” (*ibid*).

### **Axial coding themes**

Nineteen themes emerged from the focussed coding stage of the analysis (Table 6). With references to these themes ranging from 10 to 346 the inclusion of all of the data would be overwhelming. Therefore, to illustrate each of the themes, one pertinent illustrative quote has been chosen as a typical representation of the participant responses.

### **Aging (29 participants, 227 references)**

There is debate over the extent to which the older sector of society is increasing (see Chapter 2). Although this may suggest that people are healthier the physical effects of age are undeniable and “affect not only health but also long-term quality of life” (Crawford and Walker, 2008, p.110). All of the participants of this study talked about how the physical effects of age need to be taken into consideration when delivering O&M interventions. Two hundred and twenty seven references were made about how this consideration manifests; one participant that encapsulated the issue reported:

...older people – you’re more likely to be thinking about frailty, walking sticks and whether they need a level of physical support... (RW1)

### **Anxiety (6 participants, 10 references)**

It is often the case that “persons adjusting to new vision loss are commonly in a rather emotional state” (Ponchillia and Ponchillia, 1996, p.299). Consequently, it is perhaps not surprising that some of the participants reported high levels of anxiety experienced from their clients. Of the ten references made about anxiety, one participant summed up the situation reporting:

...If I get in and find that they're very, very anxious and nervous, then I take a different approach. What I try to do is calm them down, they have a fear of social service, they think that you're a social worker, you're going to go in and put them in a nursing home so I allay that fear by explaining what I do and as soon as they realise that I'm not prepared to put them in a nursing home they tend to calm down... (RW12)

### **Benevolence (16 participants, 21 references)**

With the rehabilitation worker's role firmly positioned within social care (as discussed in Chapter 2), it is plausible that the social services guardianship role of protecting the vulnerable, commonly within children's and mental health services ('*Parens Patriae*'), is adopted in its broadest sense by the professional working with a wider population of vulnerable people. An indication of this may be seen in participants' expressions of a benevolent attitude when discussing working with older people, which appeared to be related to the empathy required for relationships to be effective and to motivate their clients. Twenty one references included a benevolent perspective, one participant who sums up the need for this described:

...sometimes you might be a bit more encouraging and, I don't know how to put it, but sort of looking after that person and encouraging them to take that next step... (RW7)

### **Confidence (22 participants, 55 references)**

The relationship between depression and visual impairment has been recently document by Margrain and Boulton (2005). Therefore, it might be expected that the participants of this study would discuss how low self-esteem manifests in relation to their clients. Most of the participants reported how confidence building was a major focus of their O&M training with older people. Fifty five references were made to the loss of or rebuilding of confidence, a situation described by one participant who reported:

...if you've lost your sight and your confidence has gone or is very low then you might find it hard, so it's probably more a question of building people's confidence... (RW21)

### **Control (28 participants, 78 references)**

Most of the participants suggested that their older clients should maintain control over decision making and that this was important for motivation and meeting the needs of their client when delivering O&M training. The value of control was reported in one of the (78) references in the following way:

...I think it's a bit about giving people the control and the power to be able to stay in control and making other people aware of visual impairment and, just because they can't see, doesn't mean that they can't think and can't speak and you know they haven't got a voice for themselves... (RW27)

### **Expectation (16 participants, 30 references)**

Many of the participants brought up the issue of expectation during their discussions. This on the whole centred on the client's perspective that their visual impairment was a consequence of ageing rather than a disability (Crawford and Walker, 2008) and that care and support was their only need. Thirty references were made about the expectation of the client and family; one of the participants reported how they experienced this, stating:

...preconceptions either from the clients themselves or from members of their family, about sight loss just being one of those things that happens when you get older and actually when you get older you have carers and you have people doing everything for you... (RW4)

### **Exceptions to the rule (16 participants, 26 references)**

Throughout the discussions, many of the participants gave celebratory examples or stories of clients with high levels of ability and motivation. These were often used to counter negative generalisations of working with older visually impaired people. Of the 26 descriptions of

experiences in which clients demonstrated high levels of functionality, one participant succinctly reported:

...then you get an 80 year old who's raring to go, I mean I've got one he's eighty two and he does about 10 miles a day with a long cane, he wears his roller balls out like nobody's business... (RW24)

### **Experience and knowledge (25 participants, 47 references)**

Features of the adult learner as described by Malcolm Knowles (2005) bring to the forefront the importance of the adult learner's experience and knowledge; the relationship between the teacher and learner; and the learner's need to influence the content and structure of their learning. With this study focussing on the reality of the application of the classic O&M methodology in meeting the needs of older visually impaired people, the participants naturally covered these features when discussing how they adapt their delivery style when teaching O&M to older people.

It was clear from the discussions that the participants recognised the value of their older clients' life experience and knowledge of their environment. Most of the participants saw a value in using this in their O&M training programmes and adapted their training accordingly. The following is one illustrative reference (of 47) where the participant described the value of this experience:

...they've got more of a lifetime of doing things and they're more likely to have lived in a place for a long time and therefore they're more likely to know, go round this way and this is the way we always go... (RW8)

### **Fear (16 participants, 33 references)**

Many participants highlighted the presence of fear within the emotional state of their older clients with a visual impairment. This included a fear of authority, feelings of vulnerability,

self-doubt and a need for help. Thirty three references were made about fear, one of the participants describing the impact this has on the take-up of O&M training reported:

...I think it might be hard for people to take that step forward to actually take that brave step. I think they make more of a snap decision – no it's not for me, no I'm okay... (RW2)

### **Individuality (22 participants, 46 references)**

Most of the participants referred to the individuality of their older clients. The use of the term 'individual' seemed to indicate a non-judgemental, respectful working practice and approach to the working relationship. Of the 46 references made, one example is a participant who said:

...it's an individual thing isn't it, I see each person as an individual and it all depends it can change by mood swings, it can change minute by minute, can't it. Well it's the individual need, isn't it? It's what the person actually needs themselves... (RW13)

### **Motivations (29 participants, 100 references)**

All of the participants of this study highlighted the motivation of their clients as the key driver for O&M training. However, with the extent of an older person's travel being described by Crews and Clark (1997) as "a fairly modest array of places" (p.439), there is the suggestion that the older person's motivation to travel is in some way unique to their demographic. During the interviews, participants described a range of motivators including socialisation, psychological wellbeing, short routes and maintenance of lifestyle. One hundred references were made about an older person's motivation; one participant who describes an array of motivations stated:

...I would say to get to the local shops if possible. Visit a friend. Maybe get to a day centre or some activity they want to do, local association maybe. Shopping, socialisation, get to a local activity. Probably just to get out and about, to get out of the monotony of being stuck at home, going for a walk... (RW16)

**Pedagogy (29 participants, 346 references)**

The role of the teacher within rehabilitation and O&M is described in detail by Ponchillia and Ponchillia (1996) Blasch *et al* (1997) and Jacobson (2008). Therefore, it is perhaps not surprising that the theme of pedagogy was present in all of the participants' contributions. These contributions included comments on session structure and content, the following is one example of the 346 references to the method and practice of teaching:

...poorer hearing when they're older, which makes a difference to how they learn and the approach and the skills they need to use to be safe, a bit more repetition, a bit slower, a bit shorter lessons those sorts of things for the elderly generally... (RW9)

**Professional critique (26 participants, 105 references)**

When discussing working experiences it was perhaps inevitable that participants would talk about their working situation. Most of the participants discussed working procedure and relationships and how these often created barriers to effective working. One participant referencing their work experiences (of the 105 references) gave a description of how the pressures of work had changed over the years stating that:

...during the last five years we've had to do so much more PC and IT input and it really annoys me, if I wanted to be an administrator I would have trained to be one... I'm a qualified specialist...I don't want to be a slave to a PC 75% of the time... (RW27)

**Relationships (11 participants, 20 references)**

Many of the participants discussed their interaction with their older clients in terms of the building of a relationship. This appeared to be based on discussion-centred periods of interaction with their clients that challenged loneliness and built familiarity and commonality between the worker and the client. Twenty references were made about relationships; one of the participants described this experience, reporting:

...they're often lonely and they need to connect to you, so you try and put them at ease by having a bit of a chit chat, cup of tea, I don't think that happens with the younger people... (RW5)

### **Respect (25 participants, 66 references)**

'The National Service Framework – for Older People' (DoH, 2001a) promotes respect as a key theme for tackling age discrimination. Respect appeared to underpin the working perspective of most of the participants, who often described respectful behaviour as an adaptation they made to their working practice when interacting with older people. Of the references describing this perspective (n=66) one in particular succinctly reported the manifestation of respect in working practice:

...I think with older people you have to be a bit more serious you have to show them that you respect them... (RW25)

### **Safety (27 participants, 62 references)**

The likelihood of falling increases with age. Research suggests that every year 30% of people over the age of 65 (living in the community) fall (Gillespie *et al*, 2010). As O&M training aims to promote independent travel it undoubtedly exposes the traveller without sight to risk and dangerous situations. Most of the participants regularly discussed how the safety of their client was paramount in the delivery of O&M training and how this was their key measure when evaluating its effectiveness. Sixty two references were made to safety, one participant that clearly indicates the importance of this reported:

...to keep them safe and keep them independent with safety is a priority so if someone is originally still active and you know was making journeys that they are now not making simply because they now have sight loss, and they consider they are not now safe so therefore they are now not doing the journey... (RW14)

### **Social isolation (29 participants, 164 references)**

Social isolation has long been recognised as a symptom of a visual impairment (Comber *et al*, 2012; Margrain and Boulton, 2005; Pavey, Douglas *et al*, 2009). Consequently it was likely that participants would talk about their older clients' social situations. All of them identified that the older person's social circle has often diminished and their need to travel reduced; rather than isolation being a barrier, they felt that this element of the older person's situation was a motivator to undertake O&M training. In all 164 references were made to social isolation; one participant described the link between social isolation and motivation stating:

...the area people circulate in when they get older perhaps shrinks a little bit and I think the orientation that I have done has been to friends and family or to shops in the local area...motivation might be affected by their level of socialisation, how often they get out on their own or when people come to them... (RW2)

### **Stoicism (29 participants, 138 references)**

Analysis of the participants' reports uncovered an underlying theme of stoicism. The internal control or sufferance eloquently described in the philosophical 'Meditation' of Marcus Aurelius Antoninus: "If you are distressed by anything external, the pain is not due to the thing itself, but to your own estimate of it; and this you have the power to revoke at any moment" (Jones-Smith, 2012, p.143) is often associated with older people facing adversity. Interestingly, in contrast to the common perception of the 'Dunkirk spirit' approach as a valued strength of character in the face of adversity, it was reported by participants as presenting barriers to rehabilitative intervention. One of the 138 participants' references to stoicism reported:

...they are saying no I'm alright, I don't really need anything but thank you for coming...it's really quite hard to get them to accept any help... (RW3)



## **VI condition issues (24 participants, 55 references)**

The impact of vision loss and the value of residual vision are addressed in detail during rehabilitation worker training and are intrinsically linked to O&M training. Therefore, it was no surprise that most of the participants readily discussed their clients' eye conditions and the use of retained vision. Fifty five specific references were made to residual vision, one participant explaining the value of residual vision for O&M with older people:

...the majority of people we see have a condition like macular degeneration and if they're walking familiar routes they probably have enough peripheral vision to orientate themselves... (RW4)

## **Theoretical coding categories**

This stage of the analysis uncovered 34 categories containing between five and 115 references. To aid the reader, one participant response has been included in the presentation of each of these categories. References were chosen as illustrations of typical representations of the reports gathered.

## **Acceptance (12 participants, 21 references)**

Many participants gave examples of situations in which acceptance and the stigma of a sight loss presented barriers to rehabilitative intervention. An example of the 21 references to acceptance made by the participants was provided by one participant who gave the following description:

...The ones who say I don't need a white stick yet when they're tripping over and bumping into things but they don't want a white cane because they see it as a stigma, giving in or embarrassment and that type tends not to want much in the way of mobility input... (RW9)

## **Adaptation of O&M techniques (22 participants, 48 references)**

When talking about the use of mobility devices such as white canes (long, guide or symbol canes), most of the participants described adaptations they have made to techniques to

compensate for the physical restrictions often accompanying old age. One of the 48 references offering an insight into the adaptation of the traditional cane techniques comes from a participant who reported:

[I]...don't insist that they have it in the middle of their body, I do start off that way you know, the older people definitely fall quicker down to their hip and I'm quite happy with that... (RW19)

### **Adjusting the pace of interaction (20 participants, 50 references)**

One adaptation to pedagogical methodology most of the participants made was a change to the pace of the session. This change was in response to the physical and cognitive decline associated with ageing and was described as a reduction in the content of the O&M session as opposed to the length of the session. Fifty references were identified that related to the pace of the session; this is one example:

...you can't do everything in one [visit] you cannot do it all in one it's too tiring, right, because they've taken on board information which is foreign to them...slower, much slower...yes there's a difference in the way it's delivered definitely... (RW17)

### **Belonging as a motivator for training (23 participants, 41 references)**

Most of the participants suggested that the older person's motivation to undertake O&M training was to increase social contact or interaction. Forty one references highlighted how important it was for older people to be engaged with friends or social groups; one of the participants summed this up with the following report:

...that would be social reasons and shopping really. Like meeting up with friends for coffee going to church coffee mornings, I would say, but probably more than that actually getting to the shops... (RW5)

**Client inflexibility (18 participants, 56 references)**

Strength of character, fighting spirit or a feeling that the older person with a visual impairment is set in their ways was articulated by many of the participants. Of the 56 references, one that succinctly raises the issue gave the following account:

...having done things in a set way for their whole life, making changes at that stage is very difficult and often resisted in my experience... (RW5)

**Collaborative working practice (23 participants, 40 references)**

A sense of working together was present in the responses of the participants. Many of the participants described forming relationships with their older clients where levels of control and influence were balanced between the worker and the client. One of the 40 references that epitomises the partnership relationship was reported as:

...I have to put that onus onto them and I do that from the word go, you have to tell me when you're feeling tired if you've had enough or if you just want to finish the session... (RW27)

**Didactic instruction (15 participants, 30 references)**

Rehabilitation workers have a range of pedagogical methodologies they can employ when teaching O&M. Many of the participants discussed sessions in which the teacher's role was formally adopted. One of the 30 references suggesting the use of this method reported:

...I expect them to do it all. I expect them to walk in step, keep their hand in the middle; I don't care if they are 90... (RW1)

**Flexibility of worker practice (15 participants, 21 references)**

The work of the rehabilitation worker can include a great deal of autonomy. Many participants gave examples of the flexibility they needed to have in their practice and commented on how this is vital in order to respond to the needs of their older clients. Twenty eight references were made to this flexibility of practice; one which describes working practice was the following report:

...we used to use a standardised form, now what I tend to do is dip in and out when I'm asking questions because [I] try to follow them through, so if someone says they have a magnifier I get them to take it out now and show us how to use it and things like that, whereas the social worker probably goes in, ah you've got a magnifier, fine and just ticks the box, my probing is a lot more deeper and I can go back onto questions as well, because I wait to see what the first answer is, come at it from a different angle, you get a different answer sometimes and then you go back to double check... (RW12)

### **Functional impact of physical frailty (28 participants, 115 references)**

Most of the participants highlighted the physical frailty that commonly accompanies ageing and reported on how this influences the delivery of their O&M training. In all, 115 references were made about physical frailty, one that sums up the pertinent issues states:

...I think it's with being frailer in general, you're more likely to fall or have balance problems when you're older, break something. A lot of it is to do with that, people have had falls on the bus and really don't want to go back... (RW18)

### **Functional impact of psychological frailty (19 participants, 35 references)**

Alongside the physical impact of age, many of the participants reported experiences where their older clients have displayed changes in their thought and memory processes. One of the 35 references highlighting changes in memory describes this in the following way:

...you may have to go over things again, and they have sort of not memory loss but not be able to remember things that you've just told them so quickly... (RW16)

### **Functional impact of sensory loss (21 participants, 41 references)**

In addition to the loss of sight, most of the participants also gave examples of hearing loss experienced by their older clients. Forty one references described – predominantly in the context of O&M – the constraints a loss of this kind can have on a training programme. One participant offered the following representative account, reporting:

...echolocation now that, I do hardly ever with older folks because of the hearing loss, the inevitable slight hearing loss with age... (RW9)

### **Importance of relevance in training (25 participants, 81 references)**

The traditional methodology for O&M training includes the transferability of skills and often promotes the teaching of skills out of context (see Chapter 2). In contrast to this, most of the participants discussed the importance of relevance in the training they delivered. Eighty one references were made that reported that when working with older people, the O&M should be delivered directly within the client's environment. An example of this was provided by one participant who reported:

...it's part of the actual training – I haven't had the opportunity to go into a bus garage when the bus is stationary and this is where the driver sits and you can talk to people here and this is the layout of the bus, I haven't done that. There hasn't been a need with my client group because they are already familiar with that form of transport... (RW26)

### **Influence of peers on older people (10 participants, 15 references)**

The influence of peers, often associated with younger people, was reported by many participants who described instances in which an older person's relationship with others influenced their behaviour and perspectives. In many cases, this was described as having an adverse impact upon the delivery of O&M training. The following account is one of the 15 references reporting the influence of peers:

...people over 65, 70, 75, perhaps because they see people around them getting less independent, there might be less pressure on themselves to push themselves forward as much... (RW2)

### **Kinship – emotional support (21 participants, 38 references)**

The interaction between family and the person with a visual impairment was seen by most participants as often confounding the delivery of O&M training. This interesting dynamic as reported in the following reference (one of 38) appears to suggest that it is not only the over protective actions of family members but also the client's need for emotional kinship that challenges independence:

...In some ways many of them don't do anything because it forces their children to visit them, seems very devious but that's actually what happens. They really don't want to accept help because they're afraid the visitor they get every day, their child or their neighbour won't do that and they'll be sitting for days on end with no company... (RW17)

### **Lack of motivation in older people (10 participants, 21 references)**

Having low levels or a lack of motivation was identified by many of the participants as presenting a barrier to O&M training. In all, 21 references were made regarding this; an exemplar of these was provided by one participant who reported:

...I would say the barrier's a lack of motivation...accepting rather than thinking I want to maintain my quality of life, I think they're more resigned to the fact that they assume their quality of life is going to be diminished. Acceptance of the fact that this is just another thing that's gone wrong. Their own kind of motivation around the fact they are almost resigned to their fate for want of a better word... (RW14)

### **Motivational role of the rehabilitation worker (18 participants, 33 references)**

Many participants discussed details of their role within the delivery of O&M training. There were 33 references made to an underlying motivational role which was considered to be fundamental to working with older people. One report demonstrating this stated:

...I might need to be a little bit more encouraging with older people in that I guess learning new skills – motivation might not be the same level as a younger person. Specifically with mobility training... (RW2)

### **Observation of performance (9 participants, 14 references)**

For some of the participants the observation of their clients' abilities was paramount in the identification of their needs. These participants felt this was a more effective way of understanding their client than direct questioning alone. The following report is one of the 14 references made about observation by the participants.

...I do more of the, aren't the pink flowers over there lovely sort of thing, to get an idea of how far people are seeing and what sort of detail they've got, from environmental things, noticing head movements and things rather than

asking them to look specifically at some things a long distance away. Probably a lot more observational rather than questioning... (RW3)

### **Personal ability and learning (16 participants, 24 references)**

Many of the participants described how their older clients had experienced difficulty learning new skills or techniques, this they attributed to the impact of age rather than vision loss.

Twenty four references were identified that discussed this, one that explains this clearly, states:

...I'm perhaps a little bit more aware of whether somebody is finding it difficult to understand so yes I would perhaps just talk around it a bit more with an older person...so there's quite a few people who don't feel they can change or learn a new skill at that age so that's a barrier with older people, actually convincing them there is something that can be done... (RW20)

### **Physiological motivation (20 participants, 36 references)**

The physiological needs (running the home, shopping, banking etc.) of an older person with a visual impairment were stated by most participants as being motivators for O&M training.

This is one account from the 36 references regarding physiological motivations and O&M training:

...so people are able to walk to the shops, pint of milk, loaf of bread, newspaper or whatever. More local travel, local shops... (RW3)

### **Promoting client power (14 participants, 20 references)**

Many of the participants reported their interaction with their older clients in person-centred terms, describing how older people should be treated and that the client's role was pivotal in maintaining control, making decisions and determining choice. Below is one of the quotes (n=20) that demonstrate the balance of power between the rehabilitation worker and their older client.

...I've asked the question and he's a grown up and he's said no, and you think yeah okay that's fine... (RW6)

### **Protective families (19 participants, 29 references)**

Another dynamic many of the participants reported to have experienced related to the involvement of family members. Within these relationships, family members adopted protective roles; one of the 29 references made about protective families that clearly describes this situation was provided by one participant who stated:

...the other difficult scenario is the other family member who is insistent on asking every question on behalf of their relative and won't let them speak for themselves, again that can be a symptom of stress and anxiety and just finding the whole thing difficult... (RW3)

### **Public knowledge of rehabilitation (14 participants, 24 references)**

When analysing the discussions around professional practice, 24 reports of a lack of public knowledge (including clients) of the value of rehabilitation and O&M emerged. One participant who highlighted this issue reported the following:

...I would say people knowing the service is there is number one...do they actually know that they can get mobility training, they haven't got a clue...I would say that the main barrier is people finding their way into the service... (RW16)

### **Reflection as a method of learning (4 participants, 5 references)**

A few of the participants utilised a reflective activity with their clients to help them understand the O&M training experience. This usually occurred at the end of the session and in the form of a review of the activities undertaken. Of the five accounts of reflective activities, one participant that encapsulated the process reported:

...I would speak to the person at the end of the session and try to reconfirm their learning and check their understanding and try and get them to verbalise the route to build that mental map... (RW2)



### **Repetition as an instructional strategy (7 participants, 11 references)**

Some of the participants used a methodology of repetition as a learning activity. It appears that this is utilised to challenge changes in memory associated with the ageing process. One report of the 11 that identified this, explains the complexity of this issue by reporting:

...you may have to go over things again, and they have sort of, not memory loss but not be able to remember things that you've just told them so quickly... (RW16)

### **Repudiation in older people (22 participants, 45 references)**

Most of the participants reported how their older clients rejected the help or support the rehabilitation worker had to offer. This appeared to present a stoic acceptance of their situation that was detrimental to the provision of rehabilitative intervention. Forty five references were made to this characteristic; one succinct report was the following:

...it's like an aggressive resignation where there's nothing you can do for me, my eyesight's gone that's it, there's nothing you can do... (RW10)

### **Social activities, a challenge to isolation (23 participants, 49 references)**

The needs of the older person to remain socially active and how this need influenced the O&M training the rehabilitation workers deliver was highlighted by most of the participants. Forty nine references were made; one participant who described how this was challenged reported the following:

...always put it over in a different way to them. If you're not recognising your friends, how are they going to know that you can't see them? This is you letting them know without having to go through that huge explanation which they end up doing anyway over tea. Oh goodness I see you've got a white stick now and that's the ice broken and communication has begun... (RW17)

### **Social care and rehabilitation (19 participants, 38 references)**

Regardless of their employment status (voluntary or statutory sector), all of the participants of this study work within the 'social care' sector; as a result, they are influenced by the policies

that drive the delivery of services to people with disabilities (see Chapter 2). Many of the participants saw the constraints of the social care system as confounding their practice. One of the 38 references made to this issue describes how the social care system impacts upon their clients, with the participant stating:

...people are being assessed by intake teams, enablement teams, I can see that they're not even going to consider... [rehabilitation], they hardly consider it for the younger people let alone the older people. So it's going to get missed as part of the assessment because the assessors are going to think, how are they going to do that they can't see so we'll put carers in... (RW8)

### **Social norms in practice (9 participants, 15 references)**

Some participants also articulated a sense of social standing when talking about older people. This included the social concept that 'wisdom comes with age' and old age itself is deserving of respect. This perspective was realised in one of the participant's reports (n=15) in which they described what they believed was the expected behaviour during interactions, stating:

...as they say, don't tell your granny to suck eggs, at the end of the day you just build on their strength and adapt the tools that they've got... (RW13)

### **The profile of the profession (15 participants, 27 references)**

Many of the participants described their working protocols and how they felt there was little knowledge of the rehabilitation profession amongst the professionals they meet during the course of their work. In one of the 27 references made to this the participant offers the following description:

...a lack of respect of the profession by senior managers and managers...a lack of realisation of what independent mobility training can achieve...having to justify what you're doing all the time and having to answer to managers who've got no idea at all of the whole profession... (RW11)

### **Torpidity in older people (17 participants, 26 references)**

An inactivity, apathy or lethargy was described by many of the participants when discussing their experiences of working with older people. This appeared to be linked to a perception by

the older person of a satisfactory state of affairs in which they were prepared to endure their situation. Twenty six references were made to this type of inactivity, one report described it as:

...a lack of ability to take their own initiative and carry out something that you have said, I'll put the ball in your court to do this. And then you go back and the chances are they haven't done it. Even if you have made sure they can physically do it, they know which phone number, they can use the phone, for one reason or another, they don't have the initiative to actually do it and see things through. I think it's to do with ageing, to do with coping with life and feeling stressed and pressure. So something which might seem quite simple, if I asked you to telephone a support group and ask if they had a club near you, something that might be quite simple for a younger person to do would seem quite daunting for an older person to do. I find that on the face of it they say oh yes that's no problem I can do that but in practice when you follow things up quite often it's frustrating, because I've done my bit and they haven't done the 2 or 3 things they were going to do... (RW1)

#### **Traffic safety (13 participants, 17 references)**

Perhaps not surprising when O&M training includes travelling independently in the outdoor environment monitoring traffic and negotiating road crossings, the safety of this activity was discussed by many of the participants. Seventeen references were made about the difficulties experienced by older people; one of these described the underlining philosophy participants adopt when teaching road crossings stating:

...as far as we are all concerned, they're on the pavement, they're on the road in the danger zone for the least amount of time they're back onto the pavement safely and that's a road crossing... (RW10)

#### **Using demonstration techniques (10 participants, 12 references)**

Another teaching methodology that many of the participants described was the showing of techniques to the client's family. The value of this was reported in 12 references with one description that sums up this activity as follows:

...I've shown people, had them be there whilst showing the grip and the standard sweeping technique, maybe been there when I've measured up the

cane, explained how it folds up and all that kind of thing, the initial part of it so that they know what it is and what it's meant for and how you're meant to use it and how you shouldn't use it and storing it safely. So they understand what it is... (RW28)

### **Worker behaviour and manners (13 participants, 21 references)**

Many of the participants saw their interaction with their older clients as having unique and very important properties. These properties included the need for a formality of attire, politeness and the respectful language they used. This is demonstrated in one quote (n=21) in which a participant reported:

...it's just down to respecting people's values and age and the way they expect you to speak to them, not automatically using people's first names, things like that really... (RW3)

### **EMERGING THEMES**

The broad aim of this study was to further the line of enquiry established by the two preceding studies reported in Chapter 4 (Study 1 – Exploring rehabilitation workers' opinions of the relevance of their training to their practice and the needs of their clients) and Chapter 5 (Study 2 – Expert opinion of good practice O&M training with older visually impaired people). To achieve this the themes of good practice O&M training developed through the Delphi Survey process of Study 2, were adopted to explore the:

- real life experiences illustrating each of the core themes (identified in Study 2);
- rehabilitation workers' opinions of the differences they experience working with older people and younger adults in each of the core themes; and
- barriers they have experienced to effective working with older people.

The findings of the preceding studies and the Literature Review (presented in Chapter 2 thesis) show that the O&M theoretical component of rehabilitation worker training has changed little since the subject was introduced into the UK in the mid 1960s. However, the

rehabilitation workers' client group (visually impaired older people) presents contrasting characteristics to those for whom the techniques were developed. Therefore, it could be argued that based on the drive of the UK social care system to meet needs of vulnerable people (see Chapter 2) the rehabilitation worker will need to adapt their practice in a variety of ways to meet the needs of older visually impaired people.

### **MEETING THE NEEDS OF OLDER VISUALLY IMPAIRED PEOPLE**

As discussed in Chapters 4 and 5, older people is the common term used within the vision rehabilitation profession to describe their most prevalent client group, of which a common characteristic is the late onset eye condition AMD. To facilitate the production of grounded data (that was most important to the participant) the participant brief for this study stated that the “aim of the study is to identify best working practice in relation to typical adult clients”. Interestingly, the participants (n=29) produced 227 references that consider the implications the physical effects of age have on rehabilitative intervention. Although it is unclear whether the participants' views included clients experiencing a visual impairment earlier in life, their attention to the physical implications of age and the common use of the term older people, as representing those clients with AMD would suggest that there is a consistency between the responses of the participants in this study, those of the experts in Study 2 and the rehabilitation workers in Study 1.

In this study, participants were asked about their working practice of O&M training and if they thought there were any differences in the way they work with older people compared to younger adults. All of the participants reported that in addition to their O&M training programmes being designed to challenge the impact of sight loss, (predominantly age-related

macular degeneration (AMD), these programmes also need to be adapted to take into account the biopsychosocial effects of ageing.

### **The rehabilitative challenge of sight loss and old age**

A loss of sight is the driver for rehabilitative intervention and the level of vision retained by an individual is likely to influence the type of intervention they require. The majority of participants in this study commented on how effectively an older person is able to use the residual peripheral vision commonly retained with AMD (RNIB, 2013a) and the beneficial impact this had on their ability to travel. An example of this can be illustrated through a point raised by a rehabilitation worker who stated:

...the majority of people we see have a condition like macular degeneration and if they're walking familiar routes they probably have enough peripheral vision to orientate themselves... (RW4)

This would suggest that the useable retained vision of an older person has influence over not only the structure but also the content of the training programmes delivered by the rehabilitation worker. Although this level of retained vision may appear to negate the need for the type of technical mobility instruction and aids promoted in key texts of O&M (as described in Chapter 2), the value of O&M training for the maintenance of psychosocial wellbeing was reported. Participants provided accounts in which although a level of vision was retained by their older clients, this was not enough to support their psychosocial wellbeing. The vision loss experienced by the client appeared (perhaps unsurprisingly) to be the dominant factor that drastically lowered their confidence levels. This is illustrated by three of the participants who reported the following:

...I think the orientation knowledge has been there to some degree or a good degree, it's more building their confidence... (RW2)

...it's more likely that an older person has quite a lot of useful residual vision, than it is that they are having significant mobility problems... (RW1)

...with macular degeneration they can usually manage round their own home but they start to get a bit frightened about going out... (RW22)

Alongside the need for the rehabilitation worker to respond to the psychological associations of a sight loss, participants also described their clients' need to confront the wider societal challenges they encounter. Many of the participants gave accounts in which raising the awareness of others to their clients' visual impairment was a major element of the training they provided. Delivered usually in the form of the provision of and training in the use of a symbol cane – a cane designed “to indicate visual impairment only” not for “support or detecting obstacles” (RNIB, 2013e) – two examples of reports in which this type of intervention is applied are:

...most of them are partially sighted, most of them have macular degeneration, they just want some way of showing people they can't see very well... (RW18)

...because very often you're looking at them not needing to check the ground in front of them so much as being able to warn other people... (RW8)

Interestingly, in some cases the link between confidence and symbolism appeared symbiotic.

This was explained concisely by one participant who stated:

...having a cane or accepting a cane, I wish it wasn't but it's a massive psychological step for people and I think possibly seeing the benefits of a symbol cane and how that can be a means to an end and it can help their confidence, their travel easier, I think that can possibly make them a bit more open minded about the next step... (RW2)

With the origins of formalised O&M training embracing both foot travel techniques and emotional healing (Miyagawa, 1999), the link between therapy and this type of intervention is strong. When discussing the impact a sight loss has on an older person, the diversity of O&M practice began to emerge and the complexity of working with older people became apparent.

Participants gave accounts of how they often found themselves working on the more subtle aspects of the intervention rather than the technical delivery of skills. In contrast to a respondent in Franks' (2000) study who stated that they felt frustrated when working with older people because "there is so little [they] can do at times except issue talking clocks" (p.178), the participants of this study reported the need to work with the client on their acceptance and understanding of their situation. This by many was considered to be a core element of the O&M training they delivered. Clearly described by two participants, the challenge presented to the rehabilitation worker by the impact and trauma of their client experiencing a sight loss was explained:

...of course, people are shell shocked...they get home, they don't know what to do, they don't know what support's available and by the time we get out to see them then, you're dealing with someone who's been slightly traumatised... (RW12)

...it's dealing with the emotional side of visual impairment. Because you've been in to see a consultant and they've told you, you're blind, there's nothing you can do, sent on your way, so it's what is their understanding of blindness at the end of the day... (RW13)

### **The physical effects of age and adapting rehabilitative intervention**

Old age is accompanied by many physical changes. It is predicted that "if there is nothing done about age-related disease, there will be over 6 million people with a long term illness or disability by 2030" (Age UK, 2013a, p.6). The participants of this study reported the main confounding age-related issues (in addition to the sight loss) of restricted physical movement and low stamina levels as being the most common challenges to their working practice. This clearly has a serious impact upon the type of training being delivered and the focus of the training sessions. In many cases this will require significant adaptation of working practice from the traditional structure promoted in the key text of O&M (see Chapter 2). Four participants offered interesting explanations of the common physical ailments they have



experienced when working with older people, providing an insight into the impact these can have on the rehabilitation they deliver:

...typical difficulties – arthritis and pain and discomfort. For any sort of rehabilitation these are the main barriers for the elderly... (RW5)

...I think probably the grip because their hands can't grip it with their index finger going down the flat, they can't do that... (RW17)

...in...the majority of cases I'd say that there are physical stamina issues because of a related disability, be it physical, or a heart condition what have you... (RW10)

...you get a lot of folks with arthritis, heart conditions and poor lungs... (RW9)

The cumulative impact of disease and vision loss was reported by participants who described how this impacted upon an older person's safety. They explained how the physical ability of the older person was an overriding concern when planning and delivering O&M training sessions. Three of the participants offered succinct statements that encapsulate this experience.

...I find people with going up and down stairs....gingerly...they're doing it one step at a time rather than getting into rhythm... (RW28)

...I think...with being frailer, in general you're more likely to fall or have balance problems when you're older, breaking something... (RW18)

...a lot of elderly people can't climb the steps or [they] struggle, so if they can get onto a low access bus it's much easier for them... (RW11)

### **The relationship between psychosocial ageing and rehabilitative intervention**

For O&M training to be effective a strong relationship of trust and understanding between the client and professional is essential (Blasch *et al*, 1997; Jacobson, 2008). During this study the participants' responses suggest that it is important to recognise and respond to the attitudes and behaviour of older people when planning and delivering training. Many participants

reported that there was fortitude within the client group. On the whole this was attributed to the ageing process and not as a direct result of a visual impairment. An example of this was provided by one participant who said:

...not wanting to be getting too old. Not wanting their lives to be closed down too much and I think it's sort of about fighting spirit you know; this isn't going to beat me... (RW7)

In some cases (as above) this was described as a positive attribute or strength of character and a coping strategy to combat the effects of old age; conversely, in some situations this behaviour appeared to represent a denial or lack of engagement. This was the opinion of many of the participants and eloquently summed up by one who stated:

...a lack of ability to take their own initiative and carry out something that you have said, I'll put the ball in your court to do this. And then you go back and the chances are they haven't done it. Even if you have made sure they can physically do it, they know which phone number, they can use the phone, for one reason or another they don't have the initiative to actually do it and see things through. I think it's to do with ageing, to do with coping with life and feeling stressed and pressure. So something which might seem quite simple, if I asked you to telephone a support group and ask if they had a club near you, something that might be quite simple for a younger person to do would seem quite daunting for an older person to do. I find that on the face of it they say oh yes that's no problem, I can do that but in practice when you follow things up quite often it's frustrating, because I've done my bit and they haven't done the 2 or 3 things they were going to do... (RW1)

The experience of fear and a loss of self-esteem and confidence are often associated with a visual impairment. Participants in this study also described how the ageing process itself could present as a loss, which in turn will affect an older person's self-esteem. One of the participants gave a description that encompassed this perspective.

...there's more resistance from older people in relation to being able to regain their confidence. I think they feel that once they've decided they can't do something quite often it's – at my age I shouldn't expect to – that kind of attitude. It's more difficult to overcome that barrier. Younger people tend to be more amenable to – what about trying this... (RW22)

It would appear from the participants' reports that in their attempts to bolster self-esteem or at the very least, to halt its decline, older people may endeavour to take control of their situation. The majority of the participants reported instances in which this approach manifested as a rejection of help or services. Three of the participant descriptions of events in which this happened are:

...saying no, I'm fine I can manage thank you and I think some old people in particular feel they don't want anyone from social services involved in their life, and it is somehow some slur on their character that they are needing social services... (RW3)

...having done things in a set way for their whole life making changes at that stage is very difficult and often resisted in my experience... (RW5)

...they've already assumed there probably isn't anything for them because, you know, I've never been part of the system, I've never needed any help...old people are very good at self-excluding you know, you won't be able to help me, I'm not as bad as they are or I'm past help... (RW6)

Although taking control may help to manage a psychological adjustment to old age and visual impairment, this defensive attitude was often seen as a confounding variable in the professional delivery of a service. Participants explained that clients' presenting attitudes of fortitude or repudiation presented a barrier to the delivery of O&M training with many of them finding that their clients' motivation or encouragement needed close attention before and during the training process. Three examples of this type of report are provided below:

...I think when they are older and they've got sight loss they think oh well I'm at the end of my life now and it's not worth bothering so they don't have the effort or the motivation... (RW25)

...I would say the barrier's a lack of motivation. I think a lot are just very, either very stoical, you know vis-a-vis their sight loss, the fact that they've had 70 or 80 years and yes sad and unfortunate that they now got sight loss, but hay ho, they just kind of accept it. Accepting rather than thinking I want to maintain my quality of life, I think they're more resigned to the fact that they assume their quality of life is going to be diminished. Acceptance of the fact

that this is just another thing that's gone wrong. Their own kind of motivation around the fact they are almost resigned to their fate, for want of a better word... (RW14)

...I find it quite hard sometimes to persuade older people to entertain the idea of mobility training and that kind of thing... (RW3)

### **Social isolation and the motivation for rehabilitative intervention**

The general perception amongst the participants of this study is that the increased mortality of friends experienced by older people presents a reduction in their peer group. This, and a remoteness from younger family members in both geographic terms and 'generation contrast', in many cases appears to result in loneliness and social isolation.

This was a major concern reported by the participants of this study with many of them identifying the challenging of social isolation as a key driver for rehabilitative intervention and the need for O&M training. Participants' views of the reduction in an older person's peer group and how this contributes to isolation were summed up by the following two participants' reports:

...the area people circulate in when they get older perhaps shrinks a little bit and I think the orientation that I have done has been to friends and family or to shops in the local area... (RW2)

...social isolation because they will get depressed if they don't get out, because obviously they might have lost their partner, family live quite a distance away, so they still need to go out and get some milk and things. Even to just literally go round the block... (RW29)

Another contributing factor that appeared to add to the reduction in peer group interaction was the self-excluding activities of the older person. Participants described an embarrassment felt by their older clients that they could no longer see or recognise friends, this occurred mainly when out in the street and was, therefore, reported by the participants as a core element of their O&M training. Three examples of this experience were as follows:

...also around recognition of friends, it usually crops up first not through mobility but through other parts, what other things cause you stress about losing your sight? So not seeing your friends, or how many of your friends do you tell? Why haven't you told the others? All that kind of stuff, it crops up there... (RW15)

...one of the first things people actually notice when they do become visually impaired and they're actually mobilising outside, their friends are waving to them and they're not seeing them and they are thinking, hang on what's going on there...if you're mobilising down the street the same way you always have and you have not got anything to say that you can't see – people don't know, that has an adverse effect on your relationship with the people around you... (RW13)

...this is an issue that causes older people particular embarrassment, if they are missing recognising people they have known for a long time. It's often one of the reasons people say they don't go out anymore, because they...are so distressed they are ignoring people they have known for a long time... (RW3)

The ability to be proactive in relationship maintenance and development and, therefore, be a contributor to social relationships is crucial for psychological wellbeing (Stevens, 2002).

Consequently, this can be seen as a key motivator for O&M training. In addition to the role a visual impairment can play in the social isolation of an individual, participants provided accounts in which they recognised that the physical impact of age was also a contributing factor to isolation. Participants reported that a physical restriction would in some cases be the predominant social restrictor; examples that illustrate this can be found in the following two reports:

...basing it on other health conditions and things...generally those that aren't that active and don't perhaps go out on their own any longer [this happens] for all sorts of reasons... (RW5)

...older people do tend to have family or people down the road...with being frailer in general you're more likely to fall or have balance problems when you're older, break something... (RW18)

Many of the participants articulated the importance of family relationships in the fight against isolation; however, their perspective of how the family can support independent living appeared to be in conflict with the caring family perspective. This was communicated by two participants in particular who described this situation in the follow way:

...sometimes their own belief system, because their family have been telling them to sit down I'll do it for you, they've learnt to be dependent so trying to break that dependence is a hard thing for some... (RW12)

...one lady has said to me, my family have put me here now because no one can cope, but I can cope alright you know and she did in that home for a little while until the tea kept getting brought to her and the dinners kept getting brought to her, and if she needed to go anywhere they'd put her in a wheelchair; she could walk but after a while she couldn't or didn't... (RW10)

## **FEATURES OF EFFECTIVE REHABILITATIVE PEDAGOGY WITH OLDER PEOPLE**

In many cases, the restorative nature of rehabilitation requires substantial changes to the way an individual thinks and behaves in their daily life (Davis, 2006). For these changes to occur and to be relatively permanent, a level of experiential learning is required that will facilitate “change in ‘both observable activity and internal processes such as thinking, attitudes and emotions’” (Burns cited by Sawkut *et al*, 2010, p.2). It is understandable, therefore, that a dominant aspect of the rehabilitation worker's role is the design and delivery of pedagogical events. The focus of this study was to investigate the rehabilitation worker's experiences and opinions of working with older people and to evaluate the techniques and skills they develop in their practice to meet the needs of their major client group. In particular, it was to investigate the reality of the application of classic O&M methodology in meeting the needs of older visually impaired people. This naturally uncovered the differences in practice between work undertaken with older people and younger adults and it has become clear that

rehabilitation workers make substantial changes in their working practice in response to the needs of the older person.

### **Pace**

The majority of participants reported that the pace at which they deliver their training to older visually impaired people is reduced. Interestingly, in contrast to the arguable assumption that this adaptation would be designed to challenge the restriction of vision caused by AMD – and to complement the residual vision commonly retained with this condition (RNIB, 2013a) – the structure appeared to be adapted to take into account the overall effects of age. A pertinent example of this was stated by one participant who said:

...to allow more time for older people, take things a bit slower and sort of give longer for them to execute something or respond to something, slow the pace down... (RW1)

Of further interest, the participants reported that not only was the content of the session reduced but also the number of sessions commonly reduced with age. Although the length of session reported by the participants remained consistent across the age range (of older people), this was only until the client age range increased to over 80 years of age, at which point in general terms the length of the session was reduced by 50% (see Table 8).

**Table 8: Study 3 – Length of training and number of sessions related to client age**

Age range	Average length of a training session	Average number of training sessions
Under 65	1 hour	20
65 to 79	1 hour	10
Over 80	½ hour	3

In contrast to the reports that the pace of the session was changed to compensate for the effects of age, the most common explanation offered by the participants for the reduction in the number of training sessions was that the complexity of the client's travel needs was reduced. It could be argued that those clients under 65 may still be engaged in work or social

activities and as such require a higher level of input; whereas, those clients over 80 may not venture further than the extremities of their own home or residential care setting and thus require less complex skills such as indoor travel skills and sighted guide.

### **Adaptations to O&M technique**

One of the most obvious domains in which changes were made by participants was the adaptation of the classic long cane techniques (two-point touch). For effective use of this technique, there are seven distinct elements: cane position, grip, wrist action, arc height, arc width, step and rhythm (see Chapter 2). In spite of the prescriptive approach to the delivery of this technique – promoted by the key text – the majority of participants reported making adaptations to challenge the physical restrictions of age. The most regularly adapted element of the two-point touch technique was the grip; this involved a physical adaptation of the cane handle along with a relaxing of the finer details of the actual grip performed by the cane user. One participant report that illustrates this point was:

...we have on occasions done some work to modify the grip on canes to make them chunkier. I do tend to start with people in their classic position and then if they are not comfortable I don't do as much insisting on correct positioning of the index finger and things as a younger person... (RW3)

Another equally adapted element of the technique was cane position. This, as described in the two examples below, was for a range of reasons:

...I don't follow the textbook example with a centre grip, where the hand is central to the belt buckle; if they want to drop it to the side, let them drop it down to the side providing they're covering the arc, that's all I'm worried about... (RW10)

...again, with the more elderly people keeping their hand in the correct position is too tiring for them so I allow them to drop it down to the side but widen the arc if you know what I mean to cover them, because with the arthritis and things like that they physically just can't keep it in the centre all the time, those are just a few of the differences... (RW12)



It is the interdependency of the seven elements of this technique that results in safe effective use of the cane (Jacobson, 2008). Adjustment of the cane position to the side of the body will make the traditional grip position very difficult to maintain and subsequently this element is also likely to change. Equally, with the cane in this adapted position, the flexion and hyperextension of the wrist will change and so will the wrist action (see Chapter 2). Although this type of adaptation should not affect the remaining elements of arc height, arc width, step and rhythm, the movement of the cane to achieve these elements will be different. Similar to the findings of Study 1 (See Chapter 4), any adaptation made to one or two of the seven elements of the classic two-point touch technique will have a knock-on effect, even limited adaptation of one or two elements to suit older visually impaired people will in fact require all of the elements of the technique to be adapted. Although the reported findings of Study 1 (see Appendix 1) indicated that these adaptations fostered a sense of transgression amongst the participants, the reports gathered in this study uncover a resignation on the part of the rehabilitation worker to the inevitability of the adverse impact adaptation has on the effective use of the long cane. An illustration of this can be seen in the following accounts offered by two of the participants:

...you settle for a poorer technique... (RW9)

...yes, I have to confess I'm far less disciplined about it. If it's doing the job, its covering width and it's at a speed that's not going to create missing the obstacles I would probably be fairly okay with that... (RW15)

In contrast to the majority, one participant was adamant that they did not make changes to the technique they were delivering to meet the needs of older people, instead suggesting that traditional cane techniques were not too complex or strenuous for older people and that the safety afforded by the classic technique far outweighed the value of adaptation. The qualifying statement by this participant was:

...the standards [classic cane techniques] are there for good reason; those standards encourage the amount of safety and protection that the cane offers. I often say to people the better you use a cane the more it will do for you, the more you will get out of it. I think that is true for anybody... (RW1)

### **Experience and knowledge**

The value of concrete experience in adult learning has been well evidenced by authors such as Kolb and Yeganeh, (2011) and Knowles *et al*, (2005). Therefore, it is perhaps obvious that older people have, by virtue of time, built up a large repository of experience. The participant responses during this survey indicate not only that this experience has value but also that it affects the structure and focus of training when incorporated. Participants gave accounts in which they described how their older clients were likely to have lived in the same area for a number of years and as a result built up a great deal of knowledge of their environment. The knock-on effect of this accrued experience for the practising rehabilitation worker appears to be a saving of time, time which for many workers was at a premium. Participants like those below described clearly the value of the experience their older clients had:

...I don't think I've taught a route to an older person where they haven't got a little bit of orientation knowledge... (RW2)

...the only thing is they've got more of a lifetime of doing things and they're more likely to have lived in a place for a long time and therefore they're more likely to know, go round this way, and this is the way we always go... (RW8)

Many participants of this study reported that it was important to investigate in detail the amount of knowledge and experience their client had before undertaking training and it appeared that the most efficient way they could gather this information was through observation, a perspective described succinctly by a participant who when asked how they assess their clients' knowledge and experience reported:

...the first thing that came to mind was observation, so watching how they walk, what they already do... (RW1)

The presence of this experience seemed in many cases to influence the interaction between the rehabilitation worker and their client. Participants described how they not only observed the knowledge their client had but also used this process to develop a partnership method of instruction. This incorporated an interactive training session in which the client proactively contributed to their own development. An illustration of this point was provided by one participant who stated:

...something I talk to older people about almost more than I provide formal cane training for them with. It's presented in gentle terms of let me come for a walk with you and you show me how you use this crossing, or where you want to cross and we'll just see if we can make it safer... (RW3)

## **Safety**

For many people, the concept of independent travel without sight may be difficult to imagine; however, for the experienced rehabilitation worker it is a reality and an achievable goal for many of their clients. Travel without sight does expose an individual to risk, so it may be unsurprising that it is the assessment of the client's standard of safety that is the overriding measure for assessing training requirements, limitation and success. As might be expected with such a strong focus on the individual, safety is assessed from the perspective of the client's functional ability. Some of the participants' statements that promote this focus included:

...you've dealt with folks who are incapable of being safe to those who you think, why did they bother asking me along. You go out for one stroll with them and that's it... (RW9)

...it ties in with their motivation, is to keep them safe and keep them independent with safety as a priority, so if someone is originally still active and you know was making journeys that they are now not making simply because they now have sight loss and they consider they are not now safe so, therefore, they are now not doing the journey... (RW14)

...if it's safe and they are getting about safely then that is okay, it definitely is a matter of safety, if they are safe and it feels comfortable, they are not getting jabbed in the gut every five seconds, then that's perfectly acceptable... (RW16)

## **Confidence**

As highlighted earlier, participants of this study described a loss of confidence amongst their older clients with a visual impairment. With many of their clients possessing residual vision and a great deal of experience of their environment, both of which promoted safety and influenced the need for training in technical mobility skills, participants reported that confidence building was a major focus of the O&M training they delivered to their older clients, two participants summed this up well saying:

...the formal answer is yes, it's down to individuality and level of confidence and level of complexity of the routes. It's down to the person and not wanting them to lose the skills they have gained, through lack of confidence to go out... (RW3)

...confidence building, if they have maybe routes they already know but circumstances have changed when they lost some sight and they need to go over them for rebuilding their confidence... (RW4)

## **ADAPTING REHABILITATION PRACTICE**

Having a range of practice experience, the participants of this study openly discussed their experience of working with older people. Interestingly, discussion about how they modified their practice appeared to present principles of ageing that are common in society and not specific to visual impairment, principles such as those that view older people "as those with wisdom and experience that support and nurture the following generations" (Crawford and Walker, 2008, p.3). Illustrations of how workers adapt their practice as a result of this type of knowledge can be found in the three reports below:

...it almost seems less than polite in some ways, dictating to someone who's 85, what they have got to do because you say so and if you can put it in a gentler way in my experience that goes down better... (RW3)

...I would be more likely to accept when an older person says that they don't want to do that... (RW18)

...if they said I don't want to do this, you might take that more at face value, and not want to push them to do something that they didn't want to do... (RW21)

Many rehabilitation models such as the Canadian Model of Occupational Performance (Davis, 2006) place individuality at the heart of the rehabilitative process, and in doing so draw a direct link between therapeutic intervention and personal emotional wellbeing. It is hardly a surprise, therefore, that the participants of this study reported concerns about generalising the needs of older people and that their responses might sound prejudicial or 'ageist'. An interesting strategy was used by the participants to challenge these concerns. During the interviews, the participants would often interject their reports with 'exception to the rule' stories of clients who in some way contrast to the general population they meet. Below are a few examples of these stories in which participants have described clients who they consider are exceptions to the rule:

...between 65 and 80, it's very much the active people that are still wanting to do all the things, join in the clubs and go onto the meetings... (RW8)

...I've had a client in their nineties when she was first registered, she wouldn't go outside the door, the next minute, after mobility input she going all the way to...[town]...on her own, you know what I mean, she's raising for sponsored walks and stuff like that, so it's down to the individual... (RW13)

...my clients over 80 have been quite fit so their main motivator has been to continue their lifestyle. Again it doesn't sound different, but my clients particularly over 80, I probably, I can only think of three off the top of my head and all of them have been quite active and they haven't stopped being active, they've sort of come to me before they've got there and realised it's getting more difficult, so it's not a case of regaining it's keeping it... (RW19)

...then you get an 80 year old whose raring to go, I mean I've got one he's 82 and he does about 10 miles a day with a long cane, he wears his roller balls out like nobody's business... (RW24)

With the effectiveness of the working relationship relying on worker behaviour and a mutual working partnership, it is understandable that one of the major barriers to effective working is the torpid attitude and behaviour the rehabilitation worker appears to experience from their older clients. Although this was discussed previously, participants proposed that this was a major barrier to effective working. The following four statements are examples that demonstrate this experience:

...It is resigned but it's like an aggressive resignation where there's nothing you can do for me, my eyesight's gone that's it, there's nothing you can do... (RW10)

...I think also the mobility bit, they're not necessarily seeing that they can be doing it for themselves, they're thinking of somebody coming in to do it for them, so its where we're looking at mobility, to do it for yourself, or whether we're looking at care to bring the outside world in... (RW8)

...the ones who say I don't need a white stick yet when they're tripping over and bumping into things but they don't want a white cane because they see it as a stigma, giving in or embarrassment... (RW9)

...there can be an attitude of that's it, it's all finished, I've lost my sight, you can't do anything for me, it's all over, I've had that on a few occasions and you don't tend to get that with the younger set... (RW10)

Understanding the barriers experienced by rehabilitation workers during the execution of their daily activities helps them reflect positively on their performance and to manage or cope with their experiences. This attention may also help them challenge these barriers.

In addition to the behaviour of their clients presenting barriers to their effectiveness, the participants of this study reported an ignorance of the value and existence of the rehabilitation profession amongst other professionals; this was deemed to present a significant barrier to effective working. Below are three of the descriptions that illustrate this point:

...the attitude from the ophthalmology department – you're blind there's nothing more we can do. They forget to tell them about social services. We do

have a ECLO system but they should be saying there's nothing medically we can do so we'll pass you to the ECLO who'll make sure you get the support from social services. Nine times out of 10, they say sorry, there's nothing we can do, bye... (RW12)

...lack of appropriate referrals from people who are in a position to refer older people is sometimes quite a big issue here... (RW3)

...poor assessments by unqualified staff. A lack of respect of the profession by senior managers and managers... (RW11)

...I would say that the eye consultant, eye departments are exceptionally poor, the number of these referral leaflets are almost zero from our eye departments, very few of the staff there. I had one recently, they gave him a field test, I'm going to discharge you now, social services will look after you and contact you. How would they do that, the referral was made, no CVI's were sent on to us so the guy was waiting for three months wondering, well why haven't they contacted me. Of course how would we. I would say that the main barrier is people finding their way into the service... (RW16)

## **EXPERTISE IN PRACTICE**

Dreyfus and Dreyfus (2005, 1986) describe the development of expertise as the progression from the novice 'context free' and 'rule guided' application of theory to the practice-based 'intuitive situational response' of the expert. Benner (2001) places the emphasis for the development of this experience-based knowledge (required for an intuitive situational response) on the assimilation of "knowledge embedded in actual...practice – i.e., that knowledge that accrues over time in the practice of an applied discipline" (p.1). However, the achievement of expertise requires more than the accumulation of experience, it also requires effective professional reflection. This visibility of practice made available to the practitioner, colleagues and the wider organisation (Benner and Benner, 1999) is not always available to the rehabilitation worker. With many working autonomously, they have a limited professional community of practice through which peer reflection and learning processes can function.

Interestingly, this issue appeared to be addressed in a more practical and everyday sense. In many of the discussions during this project, the centrality of the client in the planning, decision making and delivery of rehabilitative intervention was articulated, this was described by one participant who reported this in the following way:

...important thing also to emphasise is that when you are looking at adapted techniques you're actually not creating those techniques, you are working as a team with the individual to come up with a way that's going to work for them and it's very much a team effort, it comes from them as well as you... (RW22)

It became evident from the reports of the collaborative working between the client and the rehabilitation worker that the client was considered an expert in their situation and needs, and a partner within the relationship. It would appear that the rehabilitation worker's role centred on the facilitation of this relationship, which in itself requires an expert set of skills, those of relationship development and management. Illustrations of these relationships between rehabilitation workers and their clients can be found in the two following reports:

...the first thing is to try and build up some relationship, try to find out what their life history is, what they like doing, what sort of person they are, what are the difficulties they are facing in their life, that's the main thing. First is just to chat to them for maybe part of the session. The referral might be for one thing and you can look around the house once you've talked to them and think bloody hell there's a multiple of issues here. So I think the first thing is making a relationship, finding out the history and sort of just socialising with them. Making that sort of bond... (RW16)

...I think it's a bit about giving people the control and the power to be able to stay in control and making other people aware of visual impairment and, just because they can't see, doesn't mean that they can't think and can't speak and you know, they haven't got a voice for themselves... (RW27)

## **METHOD EVALUATION AND REFLECTION**

This study utilised a semi-structured telephone interview process. Having offered an open invitation to contribute to the research, it was important that all of the respondents could be accommodated. Selecting a telephone process offered the opportunity to reach participants



from across the whole of the UK within the logistical constraints of time and cost inherent in a self-funded study. In addition, it was considered that this method – in contrast to the face-to-face interviews undertaken in Study 1 – would enable practising rehabilitation workers to find the time in their busy schedule to undertake a telephone conversation in order to contribute.

In contrast to the use of a video to establish common knowledge (as utilised during the face-to-face interviews of Study 1), there was limited opportunity to present the participants with alternative or supporting media. Whilst this could influence the clarity of the participants' understanding of the questions asked, the questionnaire was constructed to offer clarification questions prior to an open question. A benefit of this process, however, was the distance created between the researcher and the participant, which supported the management of researcher bias and influence.

Due to the lack of literature in the field of vision rehabilitation and the need for high quality literature to support professional practice, the credibility of the data was considered paramount. Although, according to Charmaz (2010) field notes are adequate for grounded codes to emerge the 29 interviews were digitally recorded, generating a wealth of data. This was subsequently transcribed verbatim prior to analysis and in doing so created an audit trail that offers the opportunity for the data to be considered highly credible.

It was also considered vital that the field of rehabilitation has access to a strong foundation of research. Therefore, to achieve the dependability and transferability required for this strong foundation to be formed the data and the processes have been exhaustively documented in this thesis. The ability to recreate a research programme is important. However, Thomas' (2013) counsel for the emergent researcher that the research design "should not be set in stone, ready

to be replicated by the next researcher” (p134) was heeded and a flexible design was adopted that could be adapted and used to suit the context and environment.

## **CONCLUSION**

In this chapter the aim, research schedule and method of data gathering undertaken for Study 3 was presented in detail. Commencing with an evaluation of the findings of the preceding study (Study 2 – presented in chapter 5), the aim and focus of this study was contextualised within the framework of sequential studies presented in this thesis. Then followed descriptions of the results of the survey and the analysis of the findings, and details of the complex relationship – between a rehabilitation worker and a visually impaired older person – that is required for effective rehabilitation has emerged.

The Delphi study described in Chapter 5 surveyed experts to capture a consensus of opinion on the constitute elements of good practice O&M training with older visually impaired people. Suggesting the 11 domains of family, mobility aids, public transport, assessment, orientation, sighted guide, other professionals, the individual, road crossing, the public and the senses a theoretical framework for effective working was developed. These ideal principles, a basis for prevocational knowledge, formed the structure of the broad aim of this investigation, which was to explore the vocational application of these domains and expose the practicality of their application. Seeking answers to the question: How does a rehabilitation worker’s practical experience align with the good practice defined by the experts?, a semi-structured interview schedule based on the domains identified during Study 2 (above) was produced. Twenty nine interviews were undertaken with rehabilitation workers from across the UK to explore their:

- experiences of the ‘real life’ application of the core themes (identified in Study 2);

- opinions of working with older people and the differences they have experienced between this client group and younger adults; and
- views and experience of the barriers to effective working with older people.

With an average length of 53 minutes, these interviews were digitally recorded and the data transcribed verbatim for analysis using the QSR NVivo 10 qualitative analysis software.

Processing the data through three stages of grounded analysis (open, axial and theoretical) from the 37 interview schedule questions used, 33 theoretical coded categories emerged.

The findings of this study suggest that for rehabilitative intervention to be effective with older visually impaired people, a complex partnership relationship is required. This working partnership based on a respect – by the worker – of expert experience, utilises the client's knowledge to inform the structure, focus and suitability of O&M training. Based on individual perceptions and skills of working with older people this quality depth of engagement in a partner relationship appeared to be based on the unstructured experiential development of the worker. This type of working partnership was considered by the participants to be vital, not only to inform the focus and structure of rehabilitative intervention but also to support the client's motivation and engagement with the O&M process. With a clear lack of professional development and opportunity for learning from others, the development of these skills was dependent upon the variety of personal experiences and unstructured reflection of the worker.

The findings go on to suggest that the major barrier to rehabilitative intervention when working with older visually impaired people is the effect that age has on physical and cognitive function, and it is these restrictions on function commonly accompanying old age that often confound the effectiveness of rehabilitative intervention. Interestingly, it appears

that, rather than having a specialist knowledge of the implications old age can have on rehabilitative intervention and the structures designed to facilitate rehabilitation in older people, the knowledge of old age used by the rehabilitation worker to structure their training programmes and intervention is based on common societal constructs of ageing.

The results of this study suggest that, to ensure they are able to meet the needs of older visually impaired people, the rehabilitation worker undertakes a number of adaptations to their working practice. In addition to the development of a partnership style of working (as mentioned above) a major focus of the O&M training delivered to older people with a sight loss is confidence building. In addition, at a more practical level the adaptations made by rehabilitation workers included changes to the classical techniques of O&M training which were required to meet the physical impact of age. The reports suggest that these adaptations (to focus on confidence building and to make changes to the classical O&M techniques) are again based on individual experience rather than specialist knowledge, and as a result are often delivered with trepidation and uncertainty leaving the rehabilitation worker concerned over the implications the adaptations have on the safety of their client.

This investigation has provided a glimpse of the complex tapestry of professional knowledge required by a rehabilitation worker to deliver effective O&M training to older people. The findings suggest that the multifaceted expertise required to provide effective interventions to older people with a sight loss is far in excess of the knowledge of classical techniques delivered during the rehabilitation worker's training.

In Chapter 7 the emerging themes above and those from the two antecedent sequential studies will be discussed and contextualised within the overall thesis.

## **CHAPTER 7: DISCUSSION**

### **CHAPTER OVERVIEW**

This chapter will draw together the broad themes that have emerged from the findings of the three studies presented in this thesis. A number of themes will be investigated including a critical reflection on their relevance to the theory and practice of O&M within the wider context of rehabilitation and social care. It became clear that the data gathered during the three studies (presented in this thesis), whilst offering a focussed insight into the delivery of O&M training, exposed the fragility of a working practice that is reliant on characteristics that are not common amongst the rehabilitation worker's predominant client group (older people).

The chapter begins by considering how the evolution of the rehabilitation profession has influenced a common sense approach to problem solving that offers a bridge between theory and practice. However, with a lack of empirical research and, therefore, development of underpinning theory this approach exposes a risk of unvalidated adaptation of rehabilitative strategy and the reinvention of working practice based on the experiences of individual practitioners, both of which offer an opportunity for practice to be challenged by quality and risk.

The discussion of theory and practice continues as this chapter goes on to consider the development, value and positioning of good practice guidelines for working with older visually impaired people. This discussion is developed with a consideration of technique adaptation and the relationship between rehabilitation and the disabling effects of society, culminating in a proposal that the good practice guide offers a tool for the professional development of expertise that is not currently available within the profession. This element of

the chapter draws out the grass roots issues of relevance and returns to the implications of applying long standing theory to 21<sup>st</sup> Century practice. The chapter concludes with a brief summary of the main themes discussed.

## **COMMON SENSE REHABILITATION**

Analysis of the findings of the three studies presented in this thesis, suggests that the functional knowledge of vision rehabilitation strategies possessed by the rehabilitation worker affords them a pragmatic approach to the application of rehabilitative intervention. With a history of unaccredited training (see Chapter 2: Literature Review), in which a common sense approach to supporting visually impaired people was often the dictum (Franks, 2000; Pavey, 2011), it is perhaps unsurprising that the aptly named rehabilitation ‘worker’ is so practical in the application of vision rehabilitation strategies. However, for a professional to function effectively and deliver practical strategies, they require an underpinning theoretical knowledge that supports their development and guides their action (Benner, 2001).

The evidence gathered during Study 1 showed that the O&M elements (in particular the long white cane techniques) of the rehabilitation worker’s prevocational training have remained unchanged for over 20 years. Although it could be argued that the measures of an impairment – in accordance with the ICF definition being “problems in body function or structure such as a significant deviation or loss” (WHO, 2002, p.10) – are consistent and therefore will transcend time, we must accept that society changes over time and with those changes the disabling actions of that society (see Oliver 1996) will also change. Therefore, it is perhaps not surprising that an overriding sense of a lack of growth and development emerged from the results of Study 1 and 3. Although the strategies of rehabilitation, in this case O&M, could arguably meet the impairment needs of the individual (if that impairment is similar to that

experienced by those for whom the techniques were originally developed), a question hangs over the role of the rehabilitation worker in challenging the disabling features of society. With the majority of workers engaged in the practical application of rehabilitation strategies on a day-to-day basis, their focus of professional development is open to debate. Should this focus be on challenging the barriers created by a disabling society by adopting a more political stance or do the therapeutic interventions of rehabilitation need overhauling to meet the needs of the modern individual? Ultimately this conundrum appears to leave the novice rehabilitation worker attempting to employ context free (Dreyfus and Dreyfus, 2005) theoretical techniques and rules of application that are arguably not fit for all purposes. Whilst this sounds damning, it is important to note that by sticking to the classical techniques (see Chapter 4) of rehabilitation, the worker is offering strategies that support the needs of visually impaired people but the findings of these three studies show that these techniques are only relevant, up-to-date and good practice for clients with characteristics similar to those for whom the techniques were originally developed. In the case of the long white cane two-point touch technique this is a population of war-blinded veterans who arguably contrast with the predominant population experiencing a visual impairment in the UK (older people).

Adapting O&M techniques to suit their client's needs, the findings of Study 3 show that working on a one-to-one basis with a client, the rehabilitation worker appears to adopt a truly person-centred perspective, similar to the non-directive stance of Carl Rogers in which the client is the source of knowledge about their condition and how they can 'move forward' (Mearns and Thorne, 1994). Whilst this open agenda approach clearly recognises the needs of the individual and exemplifies the objective stance of a professional who values the importance of the individualistic and subjective nature of quality of life (Davis, 2006), it would appear to have an adverse impact upon the identification of trends in working practice,

with many of the rehabilitation workers – who participated in these studies – preferring not to generalise the elements of their practice for specific client groups. Sharing generalisations and learning from others are integral elements of professional development from novice to expert (Dreyfus and Dreyfus, 2005; Benner, 2001). In the absence of “learning relationships [that offer a] bridge between education and [the] appropriate application experiences in the work setting” (Kramer, 1999, p.117), the rehabilitation worker may struggle to recognise the quality of their work and establish their identity. Similar to the observation of nurses by Ladewig and Raaum (1999), the absence of “specific efforts directed towards self-growth” (p.9) within the rehabilitation worker profession can lead the professional to “identify themselves not by who they are, but by the tasks they performed and the...populations they served” (*ibid*). It became clear during Study 1 and 3 that the rehabilitation worker has limited access to formal knowledge development activities and resources, such as research reports, literature, texts, peer review, second level training, professional supervision (from a rehabilitation professional) and the informal learning activity of peer discussion. This situation appeared to manifest in an uncertainty or lack of confidence in the application of their practice, with many of the participants feeling that their work was in some way just acceptable or adequate in meeting the needs of their clients who are older people. This appeared to manifest in an underlying sense of uncertainty – permeating participant responses in Study 1 and 3 – that often leaves the worker feeling unfulfilled or uncertain that they are effective in their practice.

In recent years rehabilitation studies courses have developed in their academic status to the QCF Level 5 (BTEC Diploma, Foundation Degree), a process which has seen the ‘how’, ‘when’ and ‘why’ of the application of rehabilitation strategies developed into the rules and regulations that form the basis of the standardisation required for academic study. Whilst Franks’ (2000) proposal to second lecturing staff into the field in an attempt to bring the



reality of practice back into the classroom was clearly an attempt to resolve the struggle and conflicts between the vocational and academic elements of rehabilitation courses, it would appear that this conflict between – what the participants in these studies exposed to be outdated – theory and current and relevant practice has remained on the whole unresolved. This apparent lack of attention to bridging the gap between theory and practice confounds the capturing of experiences that through dialogue promote the refinements to practice required to improve and develop opportunities for both professional development and theoretical refinement (Benner, 2001). Leaving rehabilitation workers with no option but to ‘fend for themselves’ offers limited options to either take a chance and develop new paradigms of practice (which requires high levels of confidence) or to stick to the rules taught during training. Analysis of the data from Study 1 and 3 showed that regardless of which approach was adopted, there was a sense of transgression and uncertainty evident within the rehabilitation workers’ reflections on experiences of adapting their working practice. In many instances it would appear that the common sense approach to working with an individual is substituted for an adherence to the theoretical rules of practice provided during rehabilitation worker training. Consequently, the practising rehabilitation worker may struggle to assimilate the array of experiences required to develop the innate responses required for them to progress along the novice to expert continuum (Dreyfus and Dreyfus, 2005).

### **DEVELOPING GOOD PRACTICE GUIDELINES FOR WORKING WITH OLDER PEOPLE**

The five major causes of visual impairment in the UK are refractive error, age-related macular degeneration, cataract, glaucoma and diabetic retinopathy (RNIB, 2013b). Affecting people over 50 years of age, age-related macular degeneration (AMD) is commonly described as the most prevalent cause of sight loss in adults (Action for Blind People, 2013; RNIB, 2013a; Royal College of Ophthalmologists, 2009). The advancing age of those people experiencing

this eye condition is encapsulated by the rehabilitation workers' use of the term 'older people'. The findings of Study 3 showed that when encountering older people the rehabilitation workers' acknowledgment of the disabling effect of a visual impairment and subsequent rejection of the popular assumption that vision loss is an "inevitable consequence of growing older" (Crawford and Walker, 2008, p.116), epitomises social care good practice. However, although they are clearly well prepared by their training to challenge the issues presented by sight loss, they appear to be less equipped to assimilate the biopsychosocial impact of ageing into their rehabilitative intervention. An illustration of this can be seen in the participant reports (in the three studies presented in this thesis) of their experiences of working with older people in which they had experienced low motivation in their clients towards the concept of rehabilitation. On the part of the older person, this presented as a stoic acceptance of their situation in which they cope with their lot and reject help or support. A finding that mirrors that of Pavey *et al* (2008) who – although focussed on older visually impaired people with a hearing loss – found a similar pragmatic acceptance of "nothing can be done, you've got to get on with it" (p.174). Participants also described experiences in which older people appeared inflexible or torpid towards undertaking rehabilitative activities. Finding they had limited strategies to challenge this perspective, the professional respectfully accepted their older person's rejection as an indication that rehabilitation training was not appropriate. This appears to leave the rehabilitation worker with a sense of impotence, feeling that they had missed something or not been able to meet their clients' needs.

Given that older people comprise the rehabilitation worker's largest client group, the supposition is that the physical, psychological and social changes accompanying old age would be fully addressed during their training. An underpinning knowledge of this kind would enable the practising professional to not only challenge the rejection of services

effectively but also to conceptualise the value of their own working practice as effective.

However, with the participants of Study 1 and 3 reporting feelings of uncertainty in their application of rehabilitative strategies with older people and being unsure that their approach was 'right', 'correct' or 'good practice', there appears to be a gap in the applicability of the rehabilitation worker's training.

In contrast to the concerns about managing the psychosocial implications of ageing and perhaps indicative of the dominant focus of psychomotor development in the genre of O&M, the participants in all three studies appeared confident in addressing the more observable physical effects of age. Making changes to their pedagogical methodology for older people, the rehabilitation workers who participated in Study 3 seemed at ease when slowing the pace of the sessions, adapting the content and decreasing the number of the sessions accordingly (in line with the suggestions of Crews and Clark, 1997). There were, however, extremes of practice described by the participants of Study 3 (Chapter 6), ranging from an 'age is not important' perspective – in which the impact of age appeared to be rejected as a generalisation – to an opposing position in which the client is at the very centre of the decision-making and control process. As mentioned in the Literature Review (Chapter 2), in the absence of underpinning theoretical knowledge the practising professional is compelled to develop their knowledge from personal and work experiences. Illustrated in a number of the participant reports, the rehabilitation worker had risen to this challenge and developed their working practice of O&M to include strategies that address the biopsychosocial implications presented by their older clients. From an idealistic perspective, this diversity is to be commended, but with limited guidelines, the appropriateness of these perspectives makes judgements by the practising professional of suitability impractical.

The findings of the Study 2 survey – that aimed to answer the question: How do experts define good practice in relation to O&M training with older people with a visual impairment? – culminated in the production of an expert-approved consensus of opinion on the constitute elements of good practice for delivering effective O&M with older people. This empirical evidence goes some way to supporting the rehabilitation worker in recognising the quality and effectiveness of their practice and enhancing opportunities for professional development by addressing the lack of research, literature and evidence (as discussed previously).

### **NOVICE TO EXPERT IN REHABILITATION PRACTICE**

The inability to measure methodological validity that has dogged the rehabilitation worker profession for many years may have caused uncertainty and a lack of opportunity for professional development. However, it appears that the close working partnership with the client developed by the rehabilitation worker has offered them the opportunity to contest this shortfall and validate their working practice in other ways. Valuing the client's expertise (in their situation and experience), their performance, achievement and opinion appears to become the measure (albeit the sole measure) of the effectiveness of practice. This solution of validating the effectiveness of performance suggests the development of a practical knowledge that has moved away from the objective context free performance of the novice towards the subjective understanding of the expert (Dreyfus and Dreyfus 2005, 1986; Benner, 2001). The majority of participants in this programme of three studies are lone workers and autonomous in their activities. This leaves them without the opportunity to benefit from the exchanges with other professionals that facilitate effective professional growth and offer a "bridge between education and appropriate application experiences in the work setting" (Kramer, 1999, p.117). Therefore, the lessons learnt by each individual rehabilitation worker from their interactions with their clients may not be effectively assimilated into their working

practice or circulated to other professionals. In addition, an overreliance on the expertise of the client, rather than demonstrating an understanding of the subjective social context of the working relationship may indicate transference of responsibility from the worker to the client. Whilst this may be commendable from a power balance perspective in which the visually impaired person maintains the dominant power, this situation further confounds the effective development of the practice-based paradigms required for a professional to develop from the novice worker to the expert.

One element of the findings of the research presented in this thesis that may indicate a development towards expertise was found in the responses of many of the rehabilitation workers who struggled to describe the details of their practice. In these cases they often (as discussed above) used a default response of ‘it all depends on the individual’. Whilst this response has political connotations for a worker delivering person-centred interventions, as Dreyfus and Dreyfus (2005) have suggested, the inability to articulate the details of an action can be seen as an expert trait, using ‘gut’ instinct – based on vast experience – to respond to a situation in an innate reactive fashion. However, a lack of appropriate support during the reflective process could leave the professional questioning their own knowledge and skills, leading to feelings of insecurity in their practice (as expressed by many of the participants). For the novice lone worker, the development of a client/worker relationship requires a considerable leap of faith from the context free application of theory. This, for many who do not have the professional support of other rehabilitation workers, can be a daunting prospect and also a very steep and inconsistent learning curve.

## ADAPTING CLASSICAL O&M

It became clear during these surveys that one area of specialism that could be refined was the adaptation of the classical two-point touch cane technique. The data gathered further shows that in the majority of cases this technique is adapted to suit the needs of older people. As might be expected, many physical and psychological variances can impact upon the development of a good cane technique (Dodds, 1988). A recognition of the impact age can have on the physical attributes of a person with a visual impairment may be the root cause of a common adaptation used in the UK but for which there is limited literature. This involves the use of a roller tip now commonly provided as standard with the long cane in place of the traditional nylon (pencil) tip of the long cane. The technique for using a long cane effectively (as described in Chapter 2) is similar regardless of whether a roller tip or pencil tip is used. In basic terms, by moving the long cane from side to side in front of the traveller, the traveller “preview[s] the immediate environment for (1) objects in the path for travel...(2) changes in the surface of travel...and (3) the integrity of the surface upon which the foot is placed” (Farmer and Smith, 1997, p.231). This enables the traveller to be confident that they are safe whilst attending to their orientation and using their senses such as vision, hearing, tactual and kinaesthetic. Interestingly, point (3), the integrity of the surface, is questionable with research suggesting that “foot placement preview” is not achievable (*ibid*). Effectiveness aside, the main differences between a roller tip and pencil tip is that the former remains in touch with the ground as the cane is swung from side to side whilst the latter is touched gently on the ground left and right. Both of these techniques require the user to hold the cane in the correct position and walk in step (Hill and Ponder, 1976; Jacobson, 2008).

It has become clear that the knowledge provided during the rehabilitation worker’s training is invaluable for safe, effective adaptation but there appears to be limited knowledge of the

impact these adaptations can have on the individual. In the cases discussed, participants described making adaptations to the grip and cane position (two of the seven elements) to address the biological implications of age. The finality of their descriptions seem obvious but, although these adaptations appear minor, arguably each one results in an adaptation of at least five of the additional seven elements. For instance, by adapting the cane position, the movement of the cane tip (as described above) in relation to the ground and traveller body also changes. This could suggest that the relationship between the seven elements has not been fully realised. Although the implications may not be evident, the participants of these studies reported that their measure of the effectiveness and value of the cane technique is safety; if safety is achieved it could be argued that the adaptations made are effective. That said, as highlighted earlier there is very little academic literature discussing the O&M needs of older people and the implications of adaptive rehabilitative strategies of this type. This lack of theoretical support is evident throughout the rehabilitation profession with many professionals expressing that the adaptation they make to the techniques they deliver to older people are in many ways a second best option. These feelings are potentially damaging to a worker's motivation who by measuring the standard of their work by the safety achieved by their clients, is likely to experience a lack of achievement and value when offering training in techniques that they consider to be of a poor or low quality.

## **REHABILITATION, O&M AND THE SOCIAL MODEL OF DISABILITY**

As discussed in Chapter 2, the relationship between the social model of disability and rehabilitation has been a topic of much academic debate. Interestingly, although there was opportunity for the participants of the three studies presented in this thesis to discuss any elements of their practice that they felt were important their focus was predominantly on the person-centred elements of their intervention. This is perhaps not surprising with both the

findings of Franks (2000) and Villeneuve-Smith (2002) showing that these individual focussed skills are the predominant focus of both the rehabilitation worker's day-to-day role and their training. After all, concentrating on helping their client develop skills that promote their safety and enable them to travel within complex and busy environments is not necessarily where the social model of disability is placed. It is important to note that although this approach appears to empower the disabled person and, therefore, offers a challenge to Oliver's (1996) concerns (as discussed in Chapter 2) over the imbalance of power within rehabilitation methods, the measurement of safety is dependent on the rehabilitation worker's opinion (based on their personal experience). This not only sways the power balance in favour of the rehabilitation worker but also indicates isolation in working practice in which professional judgement is unsupported.

However, the accepting of the social model ideology as an underpinning theme (as called for by Oliver 1996) is required to ensure balance of power within the working relationship is sensitively monitored and managed. Although the participants of these studies did not formally discuss social model working, they did recognise the importance of developing trusting relationships with their clients and how the balance of power between them is weighted. It appeared that this focus was on the balance of power between them as an 'agent of the state' and an older person, not necessarily between them and a disabled person. It may be the case, therefore, that whilst the rehabilitation worker is accustomed to the impact they have when working with an individual with a sight loss, there may be an unrecognised complexity in working with older people that challenges the suitability and relevance of vision rehabilitation strategies. In an attempt to satisfy this conflict it appears that the rehabilitation worker rests the balance of power firmly within the grasp of their older client, who in turn becomes the ultimate decision maker in the relationship. This approach to



resolving the conflict of power exemplifies Whalley Hammell's (2006) argument that "many – perhaps most – rehabilitation professionals believe themselves to be acting in the best interests of their clients" (p.148). However, it must also be recognised that this relinquishing of power could unwittingly shift the client's locus of control from external (the rehabilitation worker) to the internal (the client). It could be argued that, if this was instigated by professionals with a limited understanding of the implications of the ageing process, this could be considered a powerful act that results in the disempowerment of the individual, and, therefore, is an oppressive act that is devised to maintain the status quo of powerful and powerless. Whilst it is unlikely that a rehabilitation worker would knowingly instigate this situation, it is important to heed the arguments of professionals and academics such as Whalley Hammell (2006), Oliver (1996) and Shakespeare and Watson (2002) and appreciate the ethical dilemmas and ideologies present within disability, rehabilitation and person-centred working.

The aim of Study 2 was to seek an answer to the question: How does a rehabilitation worker's experience of practice align with the good practice defined by experts? As discussed above, the reality of a person-centred working practice has exposed the intricacies of the working relationships rehabilitation workers have with their client. Whilst this offers little insight into the political positions and aspirations of rehabilitation workers, it does expose the sensitivities required by these professionals to deliver effective rehabilitative interventions to visually impaired people. In doing so, the findings of Study 3 complement those of the antecedent studies, adding colour and the texture of reality to the good practice guide developed by the experts.

## **REFLECTING ON THE METHODS USED IN THE THREE STUDIES**

Study 1, as described in Chapter 4, aimed to explore the rehabilitation workers' opinions of the relevance of their training to their practice and the needs of their clients. The limited empirical research on this subject offered little foundation upon which a study could be launched. Therefore, to ensure the process maximised the opportunity to expose issues that were important to the participants, a semi-structured questionnaire was developed. In doing so it was envisaged that this would offer practice narratives that rehabilitation workers could use to reflect upon their own experiences. This type of assimilation relies on the skills of the reader to transfer the findings to their own practice; however, for the rehabilitation worker this may be compromised by a lack of research experience resulting from the dearth of empirical evidence on this subject. Although the use of a semi-structured questionnaire facilitated the exploratory nature of the research and enabled the participants to talk about what was important to them, upon reflection, the data produced may be hard for the professional to transfer to their practice. Whilst confidence in the transferability of the data captured via a qualitative interview can be considered high, in this field of work this may be compromised by the experience of those transferring the findings. In this case a further publication of the findings in the format of practice guidelines may be required for the act of transferability to be achieved.

In Study 1 the semi-structured questionnaire provided a basic focus for the researcher to follow whilst also offering an opportunity for the researcher to delve into, enquire and respond to the needs of the participant. This enabled the participant to be an informant rather than a respondent, and it allowed themes important to the participant to emerge in the interview. Adopting the position of "involved interpreters of events, responding and changing as new information appears" (Thomas, 2013, p.134), this type of process "should not be set in

stone, ready to be replicated exactly by the next researcher” (*ibid*). However, securing the dependability of the process with full and in-depth documentation (as contained within this thesis) does offer the reader (or next researcher) an opportunity to appreciate and understand the relevance of the structure, the data capture, analysis and findings. Whilst not offering the opportunity to exactly replicate the study, this level of detail does provide the information required to undertake similar surveys.

From a logistical perspective, a weakness of the face-to-face interviews was the requirement for the participant to make some of the arrangements. Whilst arranging to meet the participant in their work setting offered security and comfort for the participant, for the busy professional the responsibility of providing a quiet and uninterrupted space was an additional burden which, in some cases, could result in the participant withdrawing from the study. It is not clear if this was an influencing factor in the participants’ decision-making process but this does need to be carefully considered when inviting working professionals to participate in research.

Following these interviews the data was collated and analysed. Whilst this process offered limited opportunity for the data to be member checked, which limits the credibility of the findings, the level of detail captured during the process and the stories and experiences relayed by the participants do offer transferability to the reader – especially in a field with little peer support. This is supported by the publication of results (Dodgson and McCall, 2009) within a peer reviewed journal (BJVI) offering evidence of confirmability.

The second of the three studies utilised a Delphi survey method, which aimed to capture expert opinion of good practice O&M with older visually impaired people. As discussed throughout this thesis, there is limited empirical evidence that underpins the rehabilitation

worker's practice. Therefore, it was considered that the Delphi method, being a potentially powerful "research instrument when there is incomplete knowledge about a problem of phenomenon" (Skulmoski *et al*, 2007, p.1), would suit the creative focus of this study's aim.

The Delphi method employs a process of iteration in which the data of each of the three rounds is summarised and returned to the participants for confirmation that it represents their responses. The participants of this study were training providers (of which there are only a small number); therefore, the member checking of responses (through iteration) offered a highly structured credibility check. Although the participants were all practiced rehabilitation workers, the transferability of the findings to the reality of working with older visually impaired people is vulnerable. However, for the practising professional this theoretical interpretation can provide the underpinning knowledge required to validate their practice, offering opportunities to reflect on how their practice has developed, and a tool for suppliers of services to describe the ideal working practice for older visually impaired people.

Another strength of the Delphi process is the anonymity it offers the panel members. Whilst this process is designed to counter the influence of others, commonly seen within nominal group research, it is questionable whether this was fully achievable. The field of rehabilitation is small, so whilst the participants may not know exactly who their co-participants were they may be able to guess. Therefore, their answers could be influenced by who they think may be reading their responses. In this way they could seek to protect their professional standing by either responding with comments they feel are acceptable to others or that are standardised by the available literature. Within such a small population (such as the field of vision rehabilitation) it would difficult to counter this type of influence; however, when planning

Delphi surveys, increasing the numbers and diversity of the panel is an option that offers a challenge to this type of participant bias.

One interesting element of an e-mail-administered Delphi survey is the distance it creates between the researcher and the participants and the time to think they have, both before responding and between rounds. Unlike the face-to-face or telephone questionnaires used in Study 1 and 3 in which the participant is required to respond almost immediately, the participants of this study had time to think and reflect. This, combined with the member checking process in which each of the rounds is summarised and returned to the participants for comments and approval, can promote credibility within the data. Logistically this process caused lapses in response time during each round of the process. It was found that although the participants were given deadlines to return their responses by, these continually needed to be followed up and encouragement offered to speed up the process. Unlike more immediate data capture methods, this aspect needs to be carefully considered especially when the group becomes larger, as suggested above.

Whilst the distance created between the researcher and the participant during the Delphi process is to be applauded, it also eliminates the opportunity to support the participants with additional information and materials. This was considered an important factor in Study 1, which incorporated the use of video and researcher involvement to help the participants focus their responses. Whilst the experts involved in this programme may not need this level of support, as their role as faculty and training organisation staff should afford them familiarity with research structures, processes and contributions, it is still important to recognise the role a lack of research experience within this field may have on the participant involvement and responses.

Upon reflection a nominal group activity such as this offered the means to capture the data required to answer the research question. It may have been more efficient (in time) to capture data from a single face-to-face focus group but this would result in a loss of some of the more unique, if protracted, features of the Delphi process.

The final Study (3) aimed to answer the question: How does a rehabilitation worker's experience of practice align with the good practice defined by experts? It was considered that in order to achieve an answer to this question, rehabilitation workers with an interest in and experience of the subject were required. Therefore, participant recruitment took the form of an open invitation to rehabilitation workers across the UK. Given the geographic spread of the participants, the method of a telephone-based questionnaire was used. This facilitated access to the participants at times and in locations that suited them, without an adverse financial impact on this self-funded study.

The telephone interviews were generally over an hour in length and were digitally recorded. Although this provided a wealth of data, the intensity of transcribing each session for analysis was at times overwhelming. Conversely, a benefit of undertaking this activity was the immersion of the researcher within the data; this facilitated an intense familiarity with the issues raised by participants. Interestingly, whilst elements of interaction (e.g. body language) are controlled within the telephone questionnaire process, during the conversations there was the opportunity to offer support in the form of clarification and rephrasing of questions (as in the support offered in Study 1), an important element considering the rehabilitation workers' experiences of research (as discussed earlier).

It has become clear through reflection that the techniques for data capture employed during the three studies have a range of strengths and weaknesses. Nevertheless, the three studies

employed a range of imaginative and successful methods; for example, showing the participants a video (during the Study 1 questionnaire); offering participants the member checking opportunity (during the Study 2 Delphi process); and producing structured grounded analysis from a wealth of data captured from rehabilitation workers from across the UK (Study 3). While the methods could have been improved, as described in this and the previous section, combined together they offered the whole study a degree of trustworthiness (credibility, transferability, dependability and confirmability).

## **CONCLUSION**

The aim of this chapter has been to discuss the findings of the three studies presented in this thesis.

Considering the evolutionary development of the rehabilitation profession, this chapter began by proposing that the practical approach of the rehabilitation worker was borne from a lack of empirical research into the suitability and relevance of the strategies they employ. With the research suggesting that the classical techniques of O&M do not fully suit the characteristics of the rehabilitation worker's predominant client group, this chapter progressed to discuss how the rehabilitation worker adapts their practice to counter this lack of relevance and suitability.

In investigating how rehabilitation workers develop their practice it has become evident that they focus on delivering a person-centred style of working in which they value the individualism of their client. Identifying an absence of formal and informal learning activities, the rehabilitation worker does not have access to the developmental opportunities required to assimilate their experiences into theory, or to develop new paradigms of practice required for their progression along the continuum from novice to expert. Interestingly, this issue is

mirrored in the academic development of the rehabilitation training course which appears to adhere to the traditional perspectives in the absence of a mechanism that affords the assimilation of good practice models into the training programmes. This issue has been offered clarity in this chapter by further discussing the rehabilitation workers' interactions with their major client group, older people.

Whilst respecting the value of their client's experience, this chapter progressed by exposing the feelings of inadequacy experienced by rehabilitation workers when adapting their practice to incorporate the biopsychosocial impact of ageing. Identifying a lack of support and theoretical basis and limited guidelines from which these adaptations can be employed, feelings of transgression were clearly evident.

The themes discussed in this thesis were developed from the findings of three independently funded, sequential (in time and focus) studies into the working practice of rehabilitation workers. Reflecting on the methods used to capture data in the three studies uncovered the contextual nature of trustworthiness. Whilst it is accepted that all methods have strengths and weaknesses, the mixture of methods employed across the three studies has offered exciting and innovative opportunities to investigate the practice of the rehabilitation worker.

The grounded nature of the analysis aimed to generate ideas from empirical observation (Dey, 2007); therefore, the process of data capture, analysis and the role of the researcher are integral to the evolution of the themes discussed in this chapter. These aspects of the research are reflected upon and proposals for outcomes and further research are presented in Chapter 8, Conclusion and Recommendations which follows



## **CHAPTER 8: CONCLUSION AND RECOMMENDATIONS**

### **CHAPTER OVERVIEW**

Undertaking three sequential studies over a seven-year period leaves much to be reflected upon. This chapter will present reflections on the research process and the reflexivity of the researcher associated with each of the three studies presented in this thesis.

This chapter begins with a review of the aims and research question of each of the three studies and will consider the validity of the links between them. This will include conceptualising the overall methodological perspective of the researcher (author of this thesis) through critical evaluation of the reliability of the studies and the method of data gathering each one employed.

This is followed by a reflection on the challenges of bias presented by a researcher who is an experienced and well-known rehabilitation practitioner. By exposing the implications this has on the decision-making process, selection of participants and the data analysis it is intended that the qualitative research stalwarts of credibility, transferability, dependability, confirmability and rigour are supported.

Finally this chapter aims to establish the relevance of these three studies to the field of rehabilitation, offering a number of recommendations for further research and the publication of a UK text on delivering O&M training with older people. The latter is proposed as a resource for the practising rehabilitation worker to support their autonomous development from novice to expert and for training providers to develop the elements of their courses that focus on O&M with older visually impaired people.

## **THE AIMS OF THE STUDIES**

### **Study 1**

As described in Chapter 2, the Literature Review, there has been limited research undertaken within the field of vision rehabilitation. With a lack of the empirical evidence required to underpin the focus of the first study (presented in this thesis), combined with the researcher's concerns that findings should be relevant and useful to the field in which the study was taking place, it was perhaps inevitable that the first study would be exploratory in nature and emergent and flexible in design.

The study explored the rehabilitation worker's opinions and experiences of their practice to capture the characteristics that 'they' felt were important and were of high priority. However, (as discussed in Chapter 4) the role of the rehabilitation worker is broad and therefore the subject of O&M was chosen as this domain is considered to be one of their specialisms.

Seventeen face-to-face interviews were undertaken with a convenience sample of rehabilitation workers from London and the South East. Seeking to answer the question: In what ways do rehabilitation workers think their training aligns with their professional practice and client needs?, the following concepts were investigated:

- The relevance of the O&M delivered during rehabilitation worker training to their practice.
- How the classical long white cane techniques are adapted in practice to suit the needs of people with a visual impairment.
- What types of O&M training are delivered in rehabilitation workers' practice.
- How the rehabilitation worker measures the standard and quality of their work.

- What professional development opportunities are available to the rehabilitation worker.

The findings of this study offered some confirmation of the researcher's conjecture that the rehabilitative O&M techniques taught to rehabilitation workers during their training was delivered in a classical form similar to the techniques introduced into the UK in the mid-1960s. Another important finding that supported this speculation was although the value of these techniques was recognised by rehabilitation workers, only a small percentage of their client group required this type of training. In addition to this, when it came to adapting the techniques to suit their predominant client group (a group described by them as older people) there was evidence of a sense of transgression that created professional unrest. The findings of this study also showed that the rehabilitation worker has limited access to professional development opportunities and as a result their development from novice to expert practitioners is over reliant on unstructured and ad hoc practice experiences.

When these findings are considered alongside the proposition of the initial literature search (described in Chapter 2), it became clear that not only is there a gap in empirical research into this subject, but there is also a gap between the rehabilitative theory taught during the rehabilitation workers' prevocational training and the skills they require to meet the needs of visually impaired people. The importance of this link between theory and practice is described in Benner's (2001) application of the Dreyfus model of novice to expert progression in which she states that:

While the Dreyfus model outlines the process of advancement from novice to expert based on experience, the model assumes that theory and principles allow the practitioner safe and efficient access to clinical learning, provide the background knowledge that enables the clinician to ask the right questions and

look for the correct problems. The person with limited background knowledge will lack the tools needed to learn from experience. (p:184)

Therefore, to be able to offer practitioners and training providers an update to the background knowledge required for effective working and development, this investigation was advanced by exploring the delivery of O&M to older people in more detail. With an overarching aim of providing empirical evidence of rehabilitation workers' practice to professionals and training providers, the aims were to:

- Investigate what are considered to be 'good practice methods in O&M for older people.
- Explore the experiences of rehabilitation workers' delivery of training to their predominant client group.

## **Study 2**

Building on the findings of Study 1, this second study aimed to capture a consensus of opinion of what would constitute good practice O&M training with the rehabilitation workers' predominant client group (older people). With a focus of enquiry that appreciates the importance of underpinning theoretical accuracy, a five-member expert panel of university faculty and training company professionals was formed for a three-round Delphi survey that asked the fundamental question: How do experts define good practice in relation to O&M training with older people?

The findings of this study offered a consensus of expert opinion of good practice in which were identified the following core and individual-specific elements of O&M practice with older people:

- Core – family, mobility aids, public transport, assessment, orientation, sighted guide, the individual, road crossing and the senses.
- Individual specific – other professionals.

However, to establish the relevance of the findings “the theoretician must always depend on the practitioner for clinical knowledge development and for finding puzzles and questions that current theorizing does not predict” (Benner, 2001, p.187). Therefore, the themes produced by the experts needed to be complemented by practising rehabilitation workers’ real-life experiences of delivering O&M training to older visually impaired people and, in doing so, add a rich tapestry of qualitative understanding.

### **Study 3**

Developing a flexible telephone interview schedule based on the domains of good practice provided by experts, 29 participants (who responded to an open invitation to participate) undertook interviews that aimed to ask the question: How does a rehabilitation worker’s experience of practice align with the good practice defined by experts? Finding 19 axial and 34 theoretical codes, the data produced descriptions of rehabilitation workers’ practice that offers details of:

- the changes they make to their O&M practice to meet the needs of older visually impaired people;
- their rationale for the adaptations they make to the theoretical underpinning knowledge of O&M required to meet the needs of their clients;
- the influence and importance of developing partnership-style working relationships with older visually impaired people; and

- the value of the inclusion of experience and ability when planning training with older adults.

The links and progress between the three studies presented in this thesis appear strong, not only are they sequential in time but also in focus and content. The challenge presented to the researcher is to disseminate these findings in a format digestible to both academics and practitioners. In a field that has suffered from a lack of empirical evidence, transforming this data into reality is likely to be complex; however, there are a number of options available (discussed in more detail below) and after seven years of research the author's motivation is high.

## **REFLEXIVITY**

It is perhaps obvious to the reader of this thesis that the author is immersed within the field of vision rehabilitation, not only working in this field as a practitioner and training provider but also as a researcher. The research in this thesis can be contrasted to the normative perspective that Cohen *et al* (2007) describe, i.e. research with an interest in behavioural responses to external or internal stimuli with a resulting focus on “the cause of the behaviour [that] lies in the past” (p.21). Having worked with people for over 20 years the researcher's perspective was one of “concern for the individual [and a drive] to understand the subjective world of human experience” (*ibid*) and was, therefore, clearly interpretivist. This interpretivist approach is one which adopts a flexible, qualitative, exploratory approach to the focus, data gathering and analysis in the three studies presented in this thesis.

The key drivers for this approach was a deep-rooted interest in the autonomy of the individual and the future orientated nature of their intentional behaviour supported by the researcher's development of the skills that Robson (2011) attributes to a “practitioner working with

people” (p.134). These include “having an *open and enquiring mind*, being a ‘*good listener*’, general *sensitivity* and *responsiveness to contradictory evidence*” (*ibid*).

The challenge of researcher bias was evident during the planning, participant selection, data gathering and analysis processes of these studies. Recognising this and employing the “notion of the ‘researcher-as-instrument’” (Robson, 2011, p.157) exposed the potential for influence and in doing so accepted that this bias is an integral element of the qualitative research process. Aiming to acknowledge this at every stage, personal and supervisory reflexivity were combined throughout the data gathering and analysis process to offer a multi-perspective understanding of research influence from both insider and outsider viewpoints (Mruck and Mey, 2007).

The author’s commitment to the respect, autonomy and dignity of others is encapsulated in his membership of the BPS and adherence to:

...value the dignity and worth of all persons equally, with sensitivity to the dynamics of perceived authority or influence over others and with particular regard to people’s rights including those of privacy and self-determination (BPS, 2009, p.10).

This perspective was refreshed within a research environment that offered an opportunity for researcher reflexivity which, as Charmaz (2010) suggests, exposes and includes the activities of the researcher within the research process. In addition, she describes this activity as “allowing the reader to assess how and to what extent the researcher’s interests, positions, and assumptions influenced [the] inquiry’ (p.188). Therefore, to offer some clarity from the onset, the author’s involvement in the field of rehabilitation as a rehabilitation worker and provider of training was explored to assess their potential confounding effects on the research process. These potential include:

- **Decision making.** During the supervisory process, the direction of the studies was assessed with regard to the researcher's interests as a training provider and the perceived advantages of this privileged position. Exposing this potential bias – for external scrutiny through the supervision process – and accepting the involvement of the researcher as part of the research process ensured that the evidence gathered was empirical and the analysis grounded in the data.
- **Influencing the selection of participants.** As a well-known rehabilitation worker and trainer, there was an opportunity for the researcher to select participants who share similar interests and perspectives. Whilst the convenience sampling of Study 1 was particularly vulnerable to this influence, the selection processes of Study 3 – an open invitation – was designed to counter this effect. Identifying experts for Study 2 was equally susceptible to researcher bias; however, the process of the survey in which the panel generate and monitor the findings creates a distance for the researcher that increases confidence in the reliability of the process.
- **Analysis.** Having a long standing practical background and theoretical knowledge of rehabilitation offers an insider perspective to the analysis that ensures the findings are relevant and accessible to practitioners in the field. Accepting the bias this will bring to the analysis does not fully justify its existence; therefore, the role of the supervisor in reviewing and monitoring the process offered a valuable objective perspective, which supported the rigour and credibility of the analysis process.

Challenging these issues on a regular basis through the process of supervision in which “ethical values, professional codes of conduct and high standards of integrity” (Phillips and Pugh, 2005. p.154) are respected, alongside the researcher's development of their understanding of the constituent elements of good ethical values, were cornerstones in the



development and evaluation of each stage of the three studies presented in this thesis. In addition the step was taken to expose the process to greater scrutiny and validation by peer review. Consequently the findings of Study 1 were published as a research report in the BJVI, entitled 'From novice to expert: an investigation into the professional development of rehabilitation workers through a study of practice in technical rehabilitation interventions' (Dodgson and McCall, 2009). The objective recognition of this external appraisal formed the credibility upon which the focus of Study 2 was developed.

As the Delphi process dictates, "the responses from each individual [were] collated, and all responses [were] passed on in an unedited and unattributed form to all members of the group" (Robson, 2002, p.57). The distance created by this electronic Delphi process, in which the only contact between the researcher and participants was by e-mail, clearly offered the opportunity to control bias during the data capture process. This, combined with the procedural activity of enabling the participants to validate the accuracy of the findings of the study through iteration, not only promoted the credibility of the results but also the relevance of the findings to the field of practical rehabilitation and rehabilitation training. The limited researcher influence and the participant review and approval process offered an opportunity to secure the credibility of these findings.

Researcher reflexivity was a paramount concern during the data gathering and analysis processes of Study 3. From a grounded perspective that proposed an objectivity in which "the 'cream' (essential information) would rise to the top and stick in the investigator's mind" (Noerager Stern, 2011, p.118), the researcher's knowledge, experience and interest in the field was confounding. Therefore, in contrast to the recommendations of Glazier, to avoid verbatim recording (*ibid*) the interview data was digitally recorded, transcribed verbatim and processed

through the QSR qualitative data processing tool NVivo 10. Furthermore, a change in supervisory support at the University of Birmingham – due to retirement – offered an opportunity for the emerging themes to be reviewed from a new perspective by an experienced supervising team. More recently the researcher was invited to present an up-date on this research programme at the Refreshing Rehab conference hosted by BCU (on the 4<sup>th</sup> September 2013). Whilst not offering peer review opportunities, the invitation to present would suggest there is professional interest in the focus and findings of the research and subsequent publications (as described in Recommendations below).

### **THE VALUE OF THE STUDIES TO REHABILITATION WORKER TRAINING AND PRACTICE**

Compiling the findings of the three studies has offered the opportunity to uncover the reality of rehabilitation worker practice and to build a significant resource of theory and practice of O&M training for older visually impaired people.

Finding the lack of UK-based research and published literature on the subject of rehabilitation was both liberating and confounding. For example, it was an exciting opportunity to develop a programme in a field in which very little study had already taken place; however, when the rehabilitation worker's role is so varied and broad the identification of an appropriate focus for the research that would be relevant to both training providers and practising rehabilitation workers was challenging. In addressing this, the role that the initial literature search had in establishing the direction of the research cannot be underestimated.

The basic but extremely powerful broad (initial) survey of published and unpublished literature uncovered the seminal 'Birmingham Study' of Franks (2000), which at this early stage offered a firm empirical foundation upon which a research programme could be

launched. In contrast to the underpinning security offered by the findings of Franks, the study also exposed the broadness and complexity of the role of the rehabilitation worker. Therefore, in order to choose an aspect of the practice role that was researchable, the practical experience of the researcher as a rehabilitation worker and trainer of rehabilitation workers was called upon and the subject of O&M was identified as not only a specialism of the field but also a subject known to be taught on the rehabilitation worker courses. Interestingly, this process of combining empirical evidence with the researcher experience, although not realised at the time, hints at the value of researcher involvement argued by Mruck and Mey (2007) to offer a “stock of accessible knowledge” combined with the “personal characteristics and experiences ...[that]...influence the decision for a research topic” (p.519).

Although recent research suggests that ‘reversing blindness’ is becoming a possibility (Age UK, 2013b), for many people, the loss of sight through illness, disease or injury is a long-term unchanging (or degenerative) condition. With such a prognosis it is arguably unusual to apply the medical model intervention of rehabilitation (Shakespeare and Watson, 2013) that aims to restore to health this long-term disability. However, considering rehabilitation in its broadest sense, rather than the restoration of biological ‘health’ or ‘normal life’, in visual impairment terms, the process aims to facilitate the restoration of psychosocial health through the recognition of an individual’s “strengths and limitations, and their psychological adjustment to these” (Dodds, 1993, p.18). Delivering a number of non-visual skills that challenge the impact of a visual impairment, the rehabilitation of a person with a visual impairment aims to enable an individual to function independently. This emancipatory element of vision rehabilitation directly challenges the power balance (as proposed by Oliver, 1996) of the rehabilitation worker and rehabilitation recipient. As might be expected from over 20 years’ (1992 to date) experience of working with visually impaired people and training rehabilitation

workers (2000 to date) the author of this thesis has developed an acute ethical awareness of the imbalance of power that exists within the rehabilitation partnership. This understanding of a concept, that is also evident in the researcher/participant relationship, he was able to bring to his doctoral studies and will underpin the recommendations for future research and published literature (below).

It could be argued that research of this kind is an opportunity to empower visually impaired people. However, as argued by Robson (2011) this does not necessitate “direct action where the study itself leads to change” (p.39) but can have a more indirect approach in which the focus is to change policy or, in this case, working practice. To facilitate an opportunity for change, the detailed descriptions of data and the research process contained within this thesis offer the visually impaired older person, rehabilitation worker, training provider and service deliverer a number of immediate opportunities:

**Older people** – Knowledge is arguably the key to effective decision making. The knowledge of rehabilitative strategies contained within this thesis can assist older visually impaired people to: recognise the strengths and weaknesses of the services offered to them; question the suitability of the services they receive; and understand the value of effective rehabilitative intervention. In addition, the narratives of working practice described within this thesis may offer the tools to challenge perspectives of what is possible and enable older visually impaired people to champion a flexible and effective rehabilitative provision that is designed to meet their needs. However, assimilation of the information provided in this thesis requires in-depth knowledge of the theory of O&M and its practical rehabilitative application. Therefore, a series of jargon free guides to O&M may be required to ensure the value of this thesis can be

assimilated by older visually impaired people who do not possess a technical knowledge of this field.

**Practice narratives** – With approximately 650 practising rehabilitation workers in the UK, many find themselves either working in isolation or in small teams. Therefore, access to the knowledge and experiences of others by sharing experiences and evaluating the effectiveness of rehabilitative strategies is often ad hoc (see Study 1). The data and analysis contained within this thesis offers the practising rehabilitation worker immediate access to the knowledge and experience of others. In the context of the nursing profession, Benner (2001) describes these types of experiential narratives as offering an opportunity to “create a self-study of clinical knowledge that identifies strengths of practice” (p.vii). For the practising rehabilitation worker it is intended that the narratives and analysis contained within this thesis will offer similar opportunities for them to reflect on, contrast with or validate their own practice.

**Training provider foundation** – The lack of empirical evidence available to the training provider leaves them with no option but to maintain their current curriculum. Whilst consistency is not necessarily a bad thing, a lack of evidence to support the rationale for curriculum design can result in the alignment between prevocational training and practice being questioned. The findings of these studies offer training providers immediate access to empirical evidence and expert opinion (in the form of the good practice guidelines) that enables them to validate or reform elements of their curriculum and to align prevocational training and practice.

**Service provider evidence** – At a time of austerity and cuts within the social care system, evidence of the effectiveness of rehabilitative techniques offers the service provider the option

to refine or develop the services they provide. The findings presented in this thesis clearly describe good practice that aims to address the needs of older visually impaired people. This not only offers the opportunity to maintain effective services but also the support to develop services that will ultimately improve the experiences of older visually impaired people.

## **RECOMMENDATIONS**

This investigation has provided a glimpse of the complex tapestry of professional knowledge required by a rehabilitation worker to deliver effective O&M training to older visually impaired people. The findings suggest that the multifaceted expertise required to provide effective O&M interventions to older people with a sight loss is far in excess of the knowledge of classical techniques delivered during rehabilitation workers' training. Although these results go some way to addressing the lack of research that confounds the validity of this profession, this is only the tip of the iceberg. With such a vast range of clients (children, adults, older people), a wealth of further research is required. Therefore, the recommendations proposed are:

- **Publication** – With the 'older people' sector of society being the rehabilitation worker's largest client group (and predicted to expand) there is a pressing need for detailed literature describing effective rehabilitative models of working practice that suit older visually impaired people to be made available to practising rehabilitation workers and training providers. Therefore, it is the author's intention that upon completion of this thesis the academic and practice experts' opinions are captured in three detailed good practice texts:
  - For the practising rehabilitation worker – 'Good Practice Guidelines for the practitioner in O&M with Older Visually Impaired People'.

- For the service provider – ‘Features of an effective O&M service for Older Visually Impaired People’.
- For the training provider – ‘O&M for Older Visually Impaired People’.
- **Continued professional development** – It has been argued in this thesis that rehabilitation workers have limited access to relevant research and second level training. To challenge this, the field of vision rehabilitation would benefit from a structured programme of professional development. This should include:
  - Professional development lectures, seminars and workshops aimed at disseminating new research into practice.
  - Informal discussion-based activities in which rehabilitation workers are able to share their experiences and working practice, to support their own and others’ skills development.
  - Structured reflective practice, within which case studies are communicated amongst rehabilitation workers to share knowledge and promote expertise in practice.
- **Research** – The range of services provided by rehabilitation workers is broad and empirical evidence of the value of these services is scarce. Challenging this lack of evidence over such a field of work is complex. Further research should include:
  - **Longitudinal studies.** Complementing the three studies that are presented in Chapters 4, 5 and 6 of this thesis, the stakeholder viewpoint of visually impaired people would validate and contextualise the evidence with reality experience.

**Stakeholder surveys.** Undertaking studies that empower disabled people is a commitment that the field of vision rehabilitation should promote. The findings of this thesis confirm the

dearth of empirical evidence concerning the value of rehabilitative training, including communication skills, daily living skills and information technology. Therefore, it is the responsibility of a field that promotes independence and equality to investigate these domains fully from the visually impaired persons and rehabilitative professionals' perspectives.

### **Finally...**

The three studies presented in this thesis span several years of doctoral study. The intense research focus on the practice of O&M during this time did not escape the author's own practice. Repeatedly questioning and critically reviewing practice whilst reflecting upon the data gathered from the three studies was a transformative experience, which has allowed the author of this thesis to develop as both a researcher and rehabilitation worker.

Looking back, simultaneously gathering a better understanding of O&M training, and research methods and process, has qualitatively increased the service offered by the author as a rehabilitation worker to people with a visual impairment and as a researcher to the field of rehabilitation. The development of practice in O&M is reflected upon positively and while offering an opportunity to recognise progression, any perceived shortfalls in professional skills are assimilated and contextualised as learning experiences. Likewise, reflection on the research undertaken over the last seven years suggests this could undoubtedly be improved. An example can be found in the support and expertise of the staff at the University of Birmingham. As a sole researcher working in a sector within which very little research is undertaken, this proved invaluable and a testament to collaborative working. It became clear that – although not possible within current logistical constraints – the progression and development of the three studies presented in this thesis could be improved with the support of visually impaired people and the professional rehabilitative community. Although in



hindsight things could have been changed, it is important to recognise the value of the journey from which so much has been discovered as in Rogers' (1995) perspective that life is "a process, not a state of being. It is a direction, not a destination" (p.186). The value of the journey – for the researcher and author of this thesis – was undeniably in the experience and the personal development. It is intended that in addition to this personal growth as a researcher and rehabilitation professional, the production of this thesis will offer the field of vision rehabilitation an opportunity to undergo a transformation (similar to that of the author) that will ultimately offer visually impaired people effective rehabilitation that promotes their choice, their wellbeing and quality of life.

## LIST OF REFERENCES

- Abrams, D., Eilola, T. and Swift, H. (2009). **Attitudes to Age in Britain 2004-08. Department of Work and Pensions, Research Report No 599.** HMSO, Norwich.
- Action for Blind People (2013). **Facts and Figures About Issues Around Sight Loss** [online]. Available at: <http://www.actionforblindpeople.org.uk/about-us/media-centre/facts-and-figures-about-issues-around-sight-loss/> [Accessed 22/05/2013].
- Age UK (2011). **Loneliness and Isolation Evidence Review.** Age UK, London.
- Age UK (2013a). **Challenges of an Ageing Population – Age UK Report** [online]. Available at <http://www.ageuk.org.uk/latest-press/archive/vision-and-imagination-critical-to-meet-challenges-of-ageing-population/> [Accessed 04/06/2013].
- Age UK (2013b). **Later Life in the United Kingdom, June 2013.** Age UK, London.
- Alzheimer's Association (2014) **What is Dementia?** [online]. Available at <https://www.alz.org/what-is-dementia.asp> [Accessed 23/03/2014].
- Association of Directors of Social Services (ADSS) (2002). **Progress in Sight: National Standards of Social Care for Visually Impaired Adults.** Disabilities Committee of the Association of Directors of Social Services, London.
- Baddeley, A. (1994). **Human Memory, Theory and Practice.** Lawrence Erlbaum Associates, Hove.
- Baltes, P. B., Freund, A. M. and Li, S. (2005). "The Psychological Science of Human Ageing." In Ericsson, K. A., Charness, N., Feltovich, P. J. and Hoffman R. R. (eds.) **The Cambridge Handbook of Expertise and Expert Performance.** Cambridge University Press, Cambridge.
- Bannister, P., Burman, E., Parker, I., Taylor, M. and Tindall, C. (2002). **Qualitative Methods in Psychology, A Research Guide.** Open University Press, Buckingham.
- Bengtson, V. L., Putney, N. M. and Johnson, M. L. (2005). "The Problem of Theory in Gerontology Today." In Johnson, M. L., Bengtson, V. L., Coleman, P. G. and Kirkwood, T. B. L. (eds.) **The Cambridge Handbook of Age and Ageing.** Cambridge University Press, Cambridge.
- Benner, P. (2001). **From Novice to Expert, Excellence and Power in Clinical Nursing Practice.** Prentice Hall Health, New Jersey.

- Benner, P. and Benner, R. (1999). "The Clinical Practice Development Model: Making the Clinical Judgment, Caring, and Collaborative Work of Nurses Visible." In Haag-Heitman, B. (ed.) **Clinical Practice Development Using Novice to Expert Theory**. Aspen Publishers Inc., Maryland.
- Berliner, D. C. (2004). Describing the Behaviour and Documenting the Accomplishments of Expert Teachers. **Bulletin of Science Technology and Society**, 24: 200.
- Blasch, B., Wiener, W. and Welsh, R. (1997). **Foundations of Orientation and Mobility, Second Edition**. AFB Press, American Foundation for the Blind, New York.
- Bledsoe, C. W. (1997). "Originators of Orientation and Mobility Training." In Blasch, B., Wiener, W. and Welsh, R. (eds.). **Foundations of Orientation and Mobility**. 2<sup>nd</sup> edition. AFB Press, American Foundation for the Blind, New York.
- Bledsoe, C. W. (2010). "Originators of Orientation and Mobility Training." In Wiener, W., Welsh, R. and Blasch, B. (eds.). **Foundations of Orientation and Mobility, Volume 1, History and Theory**. 3<sup>rd</sup> Edition. AFB Press, American foundation for the Blind, New York.
- British Psychological Society (BPS) (2009). **Code of Ethics and Conduct**. BPS, Leicester.
- British Psychological Society (BPS) (2010). **Code of Human Research Ethics**. BPS, Leicester.
- Brown, B. B. (1968). **Delphi Process: A Methodology Used for the Elicitation of Opinions of Experts**. The Rand Corporation, California.
- Brown, J. R. (1994). **Smoke and Mirrors: How Science Reflects Reality**. Routledge, London.
- Bryant, A. and Charmaz, K. (2011). **The Sage Handbook of Grounded Theory**. Sage Publications Ltd., London.
- Burman, E. (2002). "Interviewing." In Bannister, P., Burman, E., Parker, I., Taylor, M. and Tindall, C. (eds.). **Qualitative Methods in Psychology: A Research Guide**. Open University, Buckingham.
- Centre for Policy and Ageing (2009). **Ageism and Age Discrimination in Social Care in the United Kingdom: A Review from the Literature**. Centre for Policy on Ageing, London.
- Charles, N. (2007). Estimates of the Number of Older Visually Impaired People in the UK. **British Journal of Visual Impairment**, 25 (3): 199-215.

Charles, N. (2011). **A Brief Guide to Carrying out Research about Adult Social Care Services for Visually Impaired People, Methods Review 3**. School for Social Care Research, London School of Economics and Political Science, London.

Charles, N. and Manthorpe, J. (2009). An Exploratory Qualitative Study of Equity and the Social Care Needs of Visually Impaired Older People in England. **British Journal of Visual Impairment**, 27 (2): 97-109.

Charmaz, K. (2010). **Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis**. Sage Publications Ltd, London.

Charness, N. and Czaja, S. J. (2005). "Adaptation to New Technologies." In Ericsson, K. A., Charness, N., Feltovich, P. J. and Hoffman, R. R. (eds.). **The Cambridge Handbook of Expertise and Expert Performance**. Cambridge University Press, Cambridge.

**Chronically Sick and Disabled Persons Act 1970** (c.44 ). Great Britain. HMSO, London.

Cianciolo, A. T., Mathew, C., Sternberg, R. J. and Wagner, R. K. (2009). "Tacit Knowledge, Practical Intelligence, and Expertise." In Ericsson, K. A., Charness, N., Feltovich, P. J. and Hoffman, R. R. (eds.). **The Cambridge Handbook of Expertise and Expert Performance**. Cambridge University Press, Cambridge.

Cohen, L., Manion, L. and Morrison, K. (2007). **Research Methods in Education**, 6<sup>th</sup> Edition. Routledge, Oxon.

Comber, N., Hedges, A. and Copestake, P. (2012). **Quick Wins... and Missed Opportunities**. Office for Public Management & RNIB. London.

Community Care (2013). **Direct Payments, Personal Budgets and Individual Budgets** [online]. Available at: <http://www.communitycare.co.uk/2007/01/05/direct-payments-personal-budgets-and-individual-budgets/#.UnAnJahFCpo> [Accessed 29/10/2013].

Cope, D. G. (2014). Methods and Meanings: Credibility and Trustworthiness of Qualitative Research. **Oncology Nursing Forum**, 41 (1) 89-91.

Cox, A. (2005). What are Communities of Practice? A Comparative Review of Four Seminal Works. **Journal of Information Science**, Sage Publications, London.

Crawford, K. and Walker, J. (2008). **Social Work with Older People**. 2<sup>nd</sup> Edition. Learning Matters, Exeter.

Crews, J. E. and Clark, H. C. (1997). "Orientation and Mobility for the Older Person." In Blasch, B., Wiener, W. and Welsh, R. (eds.). **Foundations of Orientation and Mobility**. 2<sup>nd</sup> Edition. AFB Press, American Foundation for the Blind, New York.

Crotty, M. (2005). **The Foundations of Social Research: Meaning and Perspective in the Research Process**. Sage Publications, London.

Daatland, S. O. (2005). "Quality of Life and Ageing." In Johnson, M. L., Bengtson, V. L., Coleman, P. G. and Kirkwood, T. B. L. (eds.) **The Cambridge Handbook of Age and Ageing**. Cambridge University Press, Cambridge.

**Data Protection Act 1998** (c.29). Great Britain. HMSO, London.

Davis, S. (2006). **Rehabilitation the Use of Theories and Models in Practice**. Churchill Livingstone, Elsevier, London.

Davis, S. and Madden, S. (2006). "Rehabilitation at a Macro and Micro Level." In Davis, S. (ed.). **Rehabilitation: the Use of Theories and Models in Practice**. Churchill Livingstone, Elsevier, London.

Department for Transport (DfT) (2008). **Transport Statistic Bulletin National Travel Survey: 2008**. DfT, London.

Department of Health (DoH) (2001a). **National Service Framework – for Older People**. Department of Health, London.

Department of Health (DoH) (2001b). **The Expert Patient a New Approach to Chronic Disease Management for the 21st Century**. DfH, London.

Department of Health (DoH) (2005). **Research Governance Framework for Health and Social Care**. DoH, London.

Department of Health (DoH) (2013). **Certificate of Vision Impairment Explanatory Notes for Consultant Ophthalmologists and Hospital Eye Clinic Staff** [online]. Available at: <http://www.dh.gov.uk/publications> [Accessed 14/06/2013].

Department for Work and Pensions, Department of Health and Department for Communities and Local Government. (2009). **Building a Society for all Ages; Presented to Parliament by the Secretary of State for Work and Pensions (Cm 7655)**. The Stationary Office, London.

Dey, I. (2007). "Grounding Categories." In Bryant, A. and Charmaz, K. (eds.). **The Sage Handbook of Grounded Theory**. Sage Publications Ltd., London.

Dodds, A. (1988). **Mobility Training for Visually Handicapped People: A Person–Centred Approach**. Croom Helm, London.

Dodds, A. (1993). **Rehabilitating Blind and Visually Impaired People: A Psychological Approach**. Chapman and Hall, London.

Dodds, A. (1996). The Way We Were: The Genesis of Training for Specialist Staff. **British Journal of Visual Impairment**, 14 (3): 90-92.

Dodds, A. and Howarth, C. (1995). The Blind Mobility Research Unit 1965-1995. **British Journal of Visual Impairment**, 13 (3): 108-113.

Dodgson, A. and McCall, S. (2009). From Novice to Expert, an Investigation into the Professional Development of Rehabilitation Workers Through a Study of Practice in Technical Rehabilitation Interventions. **British Journal of Visual Impairment**, 27 (2): 159-172.

Douglas, G., Corcoran, C. and Pavey, S. (2006). **Network 1000, Opinions and Circumstances of Visually Impaired People in Great Britain: Report Based on over 1000 Interviews**. Visual Impairment Centre for Teaching and Research, School of Education, University of Birmingham, Birmingham.

Douglas, G., McCall, S., McLinden, M., Pavey, S., Ware, J. and Farrell, A. (2009). **International Review of the Literature of Evidence of Best Practice Models and Outcomes in the Education of Blind and Visually Impaired Children**. National Council for Special Needs, Trim, County Meath.

Dreyfus, H. L. and Dreyfus, S. E. (1986). **Mind over Machine, The Power of Human Intuition and Expertise in the Era of the Computer**. Free Press, New York.

Dreyfus, H. L. and Dreyfus, S. E. (2005). Peripheral Vision: Expertise in Real World Contexts. **Organization Studies**, 26 (5): 779-792.

Drivers Medical Group (2012). **For Medical Practitioners. At a Glance Guide to the Current Medical Standards for Fitness to Drive**. DVLA, Swansea.

Edwards, E. S., Hall, J. and Zautra, A. (2012) **Elder Care. A Resource for Interprofessional Providers. Resilience in Aging**. Donald W. Reynolds Foundation, Arizona.

Ericsson, K. A. (2009). "The influence of Experience and Deliberate Practice on the Development of Superior Expert Performance." In Ericsson, K. A., Charness, N., Feltovich, P. J. and Hoffman, R. P. (eds.). **The Cambridge Handbook of Expertise and Expert Performance**. Cambridge University Press, Cambridge.

Ericsson, K. A., Charness, N., Feltovich, P. J. and Hoffman, R. P. (2009). **The Cambridge Handbook of Expertise and Expert Performance**. Cambridge University Press, Cambridge.

Farmer, L. W. and Smith, D. L. (1997). "Adaptive Technology." In Blasch, B., Wiener, W. and Welsh, R. (eds.). **Foundations of Orientation and Mobility**. 2<sup>nd</sup> Edition. AFB Press, American foundation for the Blind, New York.

Fazzi, D. L. and Petersmeyer, B. A. (2001). **Imagining the Possibilities**. AFB Press, American foundation for the Blind, New York.

Fischer, C. T. (2006). **Qualitative Research Methods for Psychologists**. Academic Press, Elsevier, London.

Fiske, A. and Jones, R. S. (2005). "Depression." In Johnson, M. L., Bengtson, V. L., Coleman, P. G. and Kirkwood, T. B. L. (eds.). **The Cambridge Handbook of Age and Ageing**. Cambridge University Press, Cambridge.

Foddy, W. (2001). **Constructing Questions for Interviews and Questionnaires, Theory and Practice in Social Research**. Cambridge University Press. Cambridge.

Franks, J. (2000). **A Study of Practitioner's Perspectives on Rehabilitation Work with Blind and Partially Sighted People in the UK**. Unpublished PhD thesis. University of Birmingham, Birmingham.

Gabb, J., Balen, R., Gibbs, G., Hall, C. and Teal, A. (2006). Vitoria Climbie inquiry Data Corpus Project: Using the Delphi Method in Multidisciplinary Child Protection Research. **British Journal of Social Work**, 36: 577-596.

Gillespie, L. D., Robertson, M. C., Gillespie, W. J., Lamb, S. E., Gates, S., Cumming, R.G. and Rowe, B. H. (2010). **Interventions for Preventing Falls in Older People Living in the Community (Review)**. The Cochrane Collaboration, John Wiley & Sons, Ltd., West Sussex.

Goodpaster, B. H., Park, S. W., Harris, T. B., Kritchevsky, S. B., Nevitt, M., Scwartz, A. V., Smmonsick, E. M., Tylavsky, F. A., Visser, M and Newman, A. B. (2006) "The Loss of Skeletal Muscle Strength, Mass and Quality in Older Adults: the Health Aging and Body Composition Study." **Journal of Gerontology: Medical Sciences**. 61 (10): 1059-1064.

Gottwald, M. (2006). "Health Promotion Models." In Davis, S. (ed.). **Rehabilitation the use of Theories and Models in Practice**. Churchill Livingstone, Elsevier, London.

Gray, P. and Todd, J. (1967). **Mobility and Reading Habits of the Blind**. Ministry of Health, HMSO, London.

Griffin-Shirley, N. and Welsh, R. L. (2010). "Teaching Orientation and Mobility to Older Adults." In Wiener, W., Welsh, R. and Blasch, B. (2010). **Foundations of Orientation and Mobility, Volume II, Instructional Strategies and Practical Applications**. 3<sup>rd</sup> Edition. AFB Press, American foundation for the Blind, New York.

Gross, ., D. (1993). **Psychology The Science of Mind and Behaviour**. 2<sup>nd</sup> Edition. Hodder and Soughton, Kent.

Guba, E. G. and Lincoln, Y. S. (1994). "Competing Paradigms in Qualitative Research." In Denzin, N. K. and Lincoln, S. (eds.) **Handbook of Qualitative Research**. Sage Publications, California.

Guide Dogs for the Blind Association (1995). **Examination Rules for the Diploma of Higher Education in Rehabilitation Studies**. Burghfield, Reading.

Haag-Heitman, B. (1999). **Clinical Practice Development Using Novice to Expert Theory**. Aspen Publishers, Inc., Maryland.

Hanson, J., Percival, J. and Zako, R. (2002). **Research Findings, Number 1 - The Housing and Support Needs of Older People with Visual Impairment**. Thomas Pocklington Trust, London.

Hart, C. (2005). **Doing a Literature Search: A Comprehensive Guide for the Social Sciences**. Sage Publications, London.

Help the Aged (2006). **Demographic Fact Sheet** [online]. Available at: <http://www.helptheaged.org.uk/NR/rdonlyres/972B5831-4587-4EB6-A1E0-D3E15A8CEFF6/0/demographicfactsheet.pdf> [Accessed: 3 May 2009].

Hicks, R. (2007). **Age - Related Macular Degeneration** [online]. Available at: <http://www.bbc.co.uk/health/conditions/amd.shtml>. [Accessed 3 November 2007].

Hill, E. and Ponder, P. (1976). **Orientation and Mobility Techniques A Guide for the Practitioner**. AFB Press, American Foundation for the Blind, New York.

Holstein, J. A. and Gubrium, J. F. (2004). "The Active Interview." In Silverman, D (ed.) **Qualitative Research, Theory, Method and Practice**. 2<sup>nd</sup> Edition. Sage Publishing, London.

Holton, J. A. (2007). "The Coding Process and its Challenges." In Bryant, A. and Charmaz, K. (ed.). **The Sage Handbook of Grounded Theory**. Sage Publications Ltd. London.

The Information Centre. (2006). **Registered Blind and Partially Sighted People Year ending 31 March 2006 England**. The Information Centre, Adult Social Services Statistics. London.

Jacobson, W. (1993). **The Art and Science of Teaching Orientation and Mobility to persons with visual impairments**. AFB Press, American Foundation for the Blind, New York.

Jacobson, W. (2008). **The Art and Science of Teaching Orientation and Mobility to persons with visual impairments**. AFB Press, American Foundation for the Blind, New York.



James, P. (1996). The Present Scene: A critique of Current Training. **The British Journal of Visual Impairment**, 14 (3): 93-96.

Jones-Smith, E. (2012). **Theories of Counseling and Psychotherapy An Integrative Approach**. Sage Publications, Inc., California.

Kalache, A., Barreto, S. M. and Keller, I. (2005). "Global Ageing: The Demographic Revolutions in All Cultures and Societies." In Johnson, M. L., Bengtson, V. L., Coleman, P. G. and Kirkwood, T. B. L. (2005). **The Cambridge Handbook of Age and Ageing**. Cambridge University Press, Cambridge.

Kavanagh, M. (2006). "The Canadian Model of Occupational Performance." In Davis, S. (ed.) **Rehabilitation the Use of theories and Models in Practice**. Elsevier, Philadelphia.

Kelle, U. (2007). **The Development of Categories: Different Approaches in Grounded Theory** in Bryant, A., Charmaz, K. (2011). **The Sage Handbook of Grounded Theory**. Sage Publications Ltd., London.

Kirk, J. and Miller, M. L. (1986). **Reliability and Validity in Qualitative Research**. Sage Publications Ltd., London.

Kirkwood, B. L. (2005). "The Biological Science of Human Ageing." In Johnson, M. L., Bengtson, V. L., Coleman, P. G., Kirkwood, T. B. L. (2005). **The Cambridge Handbook of Age and Ageing**. Cambridge University Press, Cambridge.

Knowles, M. S., Holton III, E. F., Swanson, R. A. (2005). **The Adult Learner, Sixth Edition**. Elsevier, London.

Koestler, A. (2004). **The Unseen Minority: A Social History of Blindness in the United States**. American Foundation for the Blind, New York.

Kolb, D. A. and Yeganeh, B. (2011). "Deliberate Experiential Learning, Mastering the Art of Learning from Experience." In Elsbach, K., Kayes, C. D. and Kayes, A. (eds.). **Contemporary Organizational Behavior in Action (1st Edition ed.)**. Pearson Education, New Jersey.

Kramer, A. (1999). "Coaching: An Integral Component." In Haag-Heitman, B. (ed.). **Clinical Practice Development Using Novice to Expert Theory**. Aspen Publishers, Inc., Maryland.

Labbett, S. (2008). **Talking Point, are Rehab Workers Really Necessary?** Interview by Sarah Underwood. NB, The sight loss and eye health magazine. Royal National Institute of the Blind. London.

- Labouvie-Vief, G. (2005). "The Psychology of Emotions and Ageing." In Johnson, M. L., Bengtson, V. L., Coleman, P. G. and Kirkwood, T. B. L. **The Cambridge Handbook of Age and Ageing**. Cambridge University Press, Cambridge.
- Ladewig, N. and Raaum, J. (1999). "Vision to Reality: A Historical Perspective." In Haag-Heitman, B. (ed.). **Clinical Practice Development Using Novice to Expert Theory**. Aspen Publishers Inc., Maryland.
- Linstone, H. A. and Turoff, M. (2002). **The Delphi Method Techniques and Applications** [online]. Available at: <http://is.njit.edu/pubs/delphibook/> [Accessed 08/09/2013].
- Long, R. G. and Giudice, N. A. (2010). "Establishing and Maintaining Orientation for Mobility." In Wiener, W., Welsh, R. and Blasch, B. (2010). **Foundations of Orientation and Mobility, Volume 1, History and Theory**. 3<sup>rd</sup> Edition. AFB Press, American foundation for the Blind, New York.
- Mandelstam, M. (2005). **Community Care practice and the Law**. 3<sup>rd</sup> Edition. Jessica Kingsley Publishers, London.
- Margrain, T. H. and Boulton, M. (2005). "Sensory Impairment." In Johnson, M. L., Bengtson, V. L., Coleman, P. G. and Kirkwood, T. B. L. (eds.). **The Cambridge Handbook of Age and Ageing**. Cambridge University Press, Cambridge.
- Mason, J. (2006). **Qualitative Researching**. 2<sup>nd</sup> Edition. Sage Publications. London.
- Martin, M. (2013). **Research Discussion Paper 12 – Falls in older people with a sight loss: a review of emerging research and key action points**. Thomas Pocklington Trust. London.
- Dale, A. (2011) "Using Survey Data." In Mason, J. and Dale, A. (eds.). **Understanding Social Research**. Sage Publications. London.
- Maxwell, J. A. (1996). **Qualitative Research Design. An Interactive Approach Applied Social Research methods Series Volume 41**. Sage publications, London.
- Mearns, D. and Thorne, B. (1994). **Person-centred Counselling in Action**. Sage Publications, London.
- Merriam, S. B. (2009). **Qualitative Research: A Guide to Design and Implementation**. John Wiley and Sons. San Francisco.
- Milgram, S. (2005). **Obedience to Authority**. Pinter and Martin Ltd., London.
- Miller, J. and Glassner, B. (2004). "The "Inside" and the "Outside": Finding realities in Interviews." In Silverman, D. (ed.). **Qualitative Research, Theory, Method and Practice**. Sage Publications, London.

Mitroff, I. I. and Turoff, M. (2002). "Philosophical and Methodological Foundations of Delphi." In Linstone, H. A. and Turoff, M. (eds.). **The Delphi Method Techniques and Applications**. Available at: <http://is.njit.edu/pubs/delphibook/> [Accessed 02/01/2013].

Miyagawa, S. (1999). **Journey to Excellence – Development of the Military and VA Blind Rehabilitation Programmes in the 20<sup>th</sup> Century**. Galde Press, Inc., Minnesota.

Moorfields Eye Hospital. (2006). **Facts about age-related Macular Degeneration**. <http://www.moorfields.nhs.uk/Eyehealth/Commoneyeconditions/Age-relatedmaculardegeneration/Facts> [Accessed 11/07/2013].

Morrow, S. L. (2005) Quality and Trustworthiness in Qualitative Research in Counseling Psychology. **Journal of Counseling Psychology**, 52 (2): 250-260.

Morse, J. M. (2011). "Sampling in Grounded Theory." In Bryant, A. and Charmaz, K. (eds.). **The Sage Handbook of Grounded Theory**. Sage Publications Ltd., London.

Mruck, K. and Mey, G. (2007). "Grounded Theory and Reflexivity." In Bryant, A. and Charmaz, K. (eds.). **The Sage Handbook of Grounded Theory**. Sage, London.

**National Assistance Act 1948** (c.29). Great Britain. HMSO, London.

National Health Service (NHS) (2014). **About Dementia** [online]. Available at: <http://www.nhs.uk/Conditions/dementia-guide/Pages/about-dementia.aspx> [Accessed 17/03/2014]

Office for National Statistics (ONS) (2004). **Focus on Older People**. Great Britain. HMSO, London.

Nazroo, J. and Gjonca, E. (2005). **Research Findings, number 9 – An investigation into the circumstances of older people with sight loss: analysis of the English Longitudinal Study of Ageing**. Thomas Pocklington Trust, London.

Neustadt-Noy, N. and LaGrow, S. (1997). "The Development of the Profession of Orientation and Mobility Around the World." In Blasch, B., Wiener, W. and Welsh, R. (eds.). **Foundations of Orientation and Mobility, Second Edition**. AFB Press, New York.

**NHS and Community Care Act 1990** (c.19). Great Britain. HMSO, London.

Noerager Stern, P. (2011). "On Solid Ground: Essential Properties for Growing Grounded Theory." In Bryant, A. and Charmaz, K. (eds.) **The Sage Handbook of Grounded Theory**. Sage Publications Ltd., London.

Oliver, M. (1990). **The Politics of Disablement**. Macmillan, Hampshire.

Oliver, M. (1996). **Understanding Disability, from Theory to Practice**. Palgrave, Hampshire.

Oliver, P. (2011). **The Student's Guide to Research Ethics**. 2<sup>nd</sup> Edition. Open University Press, Berkshire.

Oppenheim, A. N. (2005). **Questionnaire Design, Interviewing and Attitude Measurement, New Edition**. Continuum, London.

Osborne, G. (2013). **We're fixing the benefits system, and giving a better deal to those in work** [online]. Available at: <http://www.telegraph.co.uk/news/politics/9964373/Were-fixing-the-benefits-system-and-giving-a-better-deal-to-those-in-work.html> [Accessed 04/06/2013].

Parker, I. (2002). "Qualitative Research." In Bannister, P., Burman, E., Parker, I., Taylor, M. and Tindall, C. (eds.). **Qualitative Methods in Psychology: A Research Guide**. Open University, Buckingham.

Pavey, S. A. (2011). **The Provision of Mobility and Independence Education to Children with Visual Impairment in Mainstream Schools**. Unpublished PhD thesis, University of Birmingham, Birmingham.

Pavey, S., Dodgson, A., Douglas, G. and Clements, B. (2009). **Travel, Transport, and Mobility of people who are blind and partially sighted in the UK. Final Report for the RNIB**. Unpublished Report, Royal National Institute of the Blind, London.

Pavey, S., Douglas, G. and Hodges, L. (2008). **The Needs of Older People with Acquired Hearing and Sight Loss: Findings from 20 Case Studies**. Report for Thomas Pocklington Trust [online]. Available at <http://www.birmingham.ac.uk/Documents/college-social-sciences/education/victar/thomas-pocklington-20-case-studies.pdf> [Accessed 11/12/2013].

Pavey, S., Douglas, G., Hodges, L., Bodsworth, S. and Clare, I. (2009). **The Needs of Older People with Acquired Hearing and Sight Loss. Occasional Paper 20**, Thomas Pocklington Trust [online]. Available at: <http://www.pocklington-trust.org.uk/Resources/Thomas%20Pocklington/Documents/PDF/Research%20Publications/OP20.pdf> [Accessed 11/12/2013].

Payne, M. (2005). **Modern Social Work Theory**. 3<sup>rd</sup> Edition. Palgrave Macmillan, Hampshire.

Pearce, J. (2011). **Has Rehabilitation got a future in the Brave New World?** [online]. Available at: <http://www.vision2020uk.org.uk/ukvisionstrategy/news.asp?section=23&sectionTitle=Latest+News&from=&to=&itemid=283> [Accessed 04/06/2013].

- Penrod, W. M. (2012). Practice Report. A Seamless Approach to Transitioning Cane Skills from the Diagonal to the Two-Point-Touch Technique. **Journal of Visual Impairment and Blindness**. 106 (4): 235-239.
- Perakyla, A. (2004). "Reliability and Validity in Research Based on Naturally Occurring Social Interaction." In Silverman, D. (ed.). **Qualitative Research, Theory, Method and Practice**. 2<sup>nd</sup> Edition. Sage Publishing, London.
- Pey, T., Nzegwu, F. and Dooley, G. (2007). **Functionality and the Needs of Blind and Partially-Sighted Adults in the UK**. The Guide Dogs for the Blind Association, Reading.
- Phillips, E. M. and Pugh, D. S. (2005). **How to get a PhD. A Handbook for Students and their Supervisors**. 4<sup>th</sup> Edition. Open University Press, Berkshire.
- Polit, D. F. and Beck, C. T. (2010) Generalization in Quantitative and Qualitative Research: Myths and Strategies. **International journal of Nursing Studies**, 47 (11): 1451-1458.
- Ponchillia, P. E. and Ponchillia, S. V. (1996). **Foundations of Rehabilitation Teaching with Persons who are Blind or Visually Impaired**. AFB Press, New York.
- Porter-O'Grady, T. (1999). "Forward." In Haag-Heitman, B. **Clinical Practice Development Using Novice to Expert Theory**. Aspen Publishers, Inc., Maryland.
- Ramscar, M., Hendrix, P., Shaoul, C., Milin, P. and Baayen, H. (2013). The Myth of Cognitive Decline: Non-Linear Dynamics of Lifelong Learning. **Topics in Cognitive Science**, 6 (1): 5-42.
- Rapaport, J., Stevens, M., Manthorpe, J., Hussein, S., Harris, J. and Martineau, S. (2008). Weighing The Evidence: A Case for Using Vignettes to Elicit Public and Practitioner Views of the Workings of the Pova Vetting And Barring Scheme. **Journal of Adult Protection**, 10 (2): 6-17.
- Ravenscroft, J. (2012). Editorial. **The British Journal of Visual Impairment**, 30 (2): 59-60.
- Rehabworker (2008). Available at: <http://www.rehabworker.co.uk/> [Accessed 18/12/08].
- Robson, C. (2002). **Real World Research**, 2<sup>nd</sup> Edition. Blackwell publishing, Oxford.
- Robson, C. (2011). **Real World Research. A Resource for Users of Social Research Methods in Applied Settings**. 3<sup>rd</sup> Edition. John Wiley and Sons Ltd., Chichester.
- Rogers, C. R. (1995). **On Becoming a Person: A Therapist's View of Psychotherapy**. Houghton Mifflin Company, New York.

Rowe, G. and Wright, G. (1999). The Delphi Technique as a Forecasting Tool: Issues and Analysis. **International Journal of Forecasting**, (15) 353-375.

Royal College of Ophthalmologists. (2009). **Age-related Macular Degeneration Guidelines of Management**. Scientific Department, The Royal College of Ophthalmologists, London.

Royal National Institute of Blind People (RNIB) (2012a). **Older People and Sight Loss: Facts and Figures** [online]. Available at: [http://www.rnib.org.uk/professionals/socialcare/services/olderpeople/research/Pages/older\\_people\\_and\\_sight\\_loss\\_facts\\_and\\_figures.aspx](http://www.rnib.org.uk/professionals/socialcare/services/olderpeople/research/Pages/older_people_and_sight_loss_facts_and_figures.aspx) [Accessed 29/05/2013].

Royal National Institute of Blind People (RNIB) (2012b). **Sight Loss UK 2012. The latest Evidence**. RNIB, London.

Royal National Institute of Blind People (RNIB) (2013a). **Age-related Macular Degeneration (AMD)**. RNIB, London UK. Available at: <http://www.rnib.org.uk/eyehealth/eyeconditions/conditionsac/Pages/amd.aspx> [Accessed 28/06/2012].

Royal National Institute of Blind People (RNIB) (2013b). **Key Information and Statistics** <http://www.rnib.org.uk/aboutus/research/statistics/Pages/statistics.aspx>. [Accessed 22/05/2013].

Royal National Institute of Blind People (RNIB) (2013c). **NB Magazine** [online]. Available at: [http://www.rnib.org.uk/professionals/health/services/nbmagazine/Pages/nb-magazine.aspx?utm\\_source=short\\_url&utm\\_medium=direct&utm\\_campaign=nbmagazine](http://www.rnib.org.uk/professionals/health/services/nbmagazine/Pages/nb-magazine.aspx?utm_source=short_url&utm_medium=direct&utm_campaign=nbmagazine) [Accessed 12/06/2013].

Royal National Institute of Blind People (RNIB) (2013d). **Sight Loss Data Tool** [online]. Available at: <http://www.rnib.org.uk/aboutus/Research/statistics/Pages/sight-loss-data-tool.aspx> [Accessed 14/06/2013].

Royal National Institute of Blind People (RNIB) (2013e). **Symbol Canes**. RNIB, London UK. Available at: [http://www.rnib.org.uk/shop/Pages/Category.aspx?Category=symbol\\_canes](http://www.rnib.org.uk/shop/Pages/Category.aspx?Category=symbol_canes) [Accessed 28/06/2012].

Rutherford, T. (2012). **Population Ageing: Statistics**. House of Commons Library, Social and General Statistics, London.

Samuel, M. (2011). **Expert Guide to Direct Payments, Personal Budgets and Individual Budgets** [online]. Available at: <http://www.communitycare.co.uk/Articles/2011/08/19/102669/direct-payments-personal-budgets-and-individual-budgets.htm> [Accessed 03/06/2013].

Sauerburger, D. and Bourquin, E. (2010). Teaching the Use of a Long Cane Step by Step: Suggestions for Progressive, Methodical Instruction. **Journal of Visual Impairment and Blindness**, 104 (4): 203-214.

Sawkut, R., Seetanah, B., Sanassee, V. and Lamport, M. (2010). **Learning Theories: A Review. Oxford Business and Economics Conference Programme, St Hugh's College.** Oxford University, Oxford.

Saxon, S. V., Etten, M. J. and Perkins, E. A. (2010). **A Guide for the Helping Professions. Physical Change and Aging.** Springer Publishing, New York.

Schraagen, J. M. (2009). "Task Analysis." In Ericsson, K. A., Charness, N., Feltovich, P. J. and Hoffman, R. P. (eds.). **The Cambridge Handbook of Expertise and Expert Performance.** Cambridge University Press, Cambridge.

Searle, J. R. (2006). **Social ontology: Some basic principles. Anthropological Theory.** Sage Publications, London.

Shakespeare, T. and Watson, N. (2002). "The Social Model Of Disability: An Outdated Ideology?" In Barnartt, S. N. and Altman, B. M. (eds.). **Exploring Theories and Expanding Methodologies: Where we are and where we Need to Go. Research in Social Science and Disability**, 2: 9-28. Emerald Group Publishing Limited, Bingley.

Skills for Care and Development. (2008). **National Occupational Standards for Sensory Services**, Skills for Care and Development, Leeds.

Skovdal, M. and Abebe, T. (2012). Reflexivity and Dialogue: Methodological and Socio-Ethical Dilemmas in Research with HIV-Affected Children in East Africa. **Ethics Policy and Environment**, 15 (1): 77-96.

Skulmoski, G.J., Hartman, F. T. and Krahn, J. (2007). The Delphi Method for Graduate Research. **Journal of Information Technology Education**, (6):1-21.

Small, M. and Marin, L. (2007). **Building Confidence One Step at a Time.** Paper presented at the SWOMA Conference, San Antonio.

Smith, G. (1996). Editorial – Designer Drugs and Reliable Transport. **The British Journal of Visual Impairment**, 14 (3): 88-89.

Stevens, R. (2002). **Understanding the Self.** Sage Publications, London.

Stone, J. (1996). Mobility: Providing Trained Personnel to Facilitate Independent Travel. **The British Journal of Visual Impairment**, 14 (3):107-108 .

Strauss, A. (1987). **Qualitative Analysis for Social Scientists**. Cambridge University Press, Cambridge.

Sutcliffe, F. E. (1968). **Rene Descartes, Discourse in Method and The Meditations**. Penguin, London.

**The future of Rehab meeting, Minutes**. (08 May 2012).

Tindall, C. (2002). "Issues of Evaluation." In Bannister, P., Burman, E., Parker, I., Taylor, M. and Tindall, C. (eds.). **Qualitative Methods in Psychology: A Research Guide**. Open University, Buckingham.

Thomas, G. (2013) **How to do your Research Project, A Guide for Students in Education and Applied Social Sciences. Second Edition**. SAGE Publications Ltd., London.

Thornton, W. (1968). **Cure for Blindness**. "In seeking the cure for blindness the secret is the will to win" Hodder and Stoughton, London.

Tsui, A. B. M. (2003). **Understanding Expertise in Teaching: Case Studies of ESL Teachers**. Cambridge University Press, Cambridge.

UK Vision Strategy. Royal National Institute of Blind People (RNIB) (2013) **Vision 2020 UK. Appendix C of the UK Vision Strategy 2013. Adult UK sight loss pathway** [online]. Available at:  
<http://www.vision2020uk.org.uk/ukvisionstrategy/page.asp?section=299&sectionTitle=Adult+UK+sight+loss+pathway> [Accessed 29/10/2012].

Villeneuve-Smith, F. (2002). **Customer Needs Exercise, Findings**. The Guide Dogs for the Blind Association, the School of Vision and Rehabilitation Studies, Surrey.

Wall Emerson, R. S. and Corn, A. L. (2006). Orientation and Mobility Content for Children and Youths: A Delphi Approach Pilot Study. **Journal of Visual Impairment and Blindness**, 100 (6): 331-342.

**Welfare Reform Act 2012** (c5.). Great Britain. HMSO, London.

Wetherell, M. (2002). **Identities, Groups and Social Issues**. Sage Publications, London.

Whalley Hammell, K. (2006). **Perspectives on Disability and Rehabilitation: Contesting Assumptions; Challenging Practice**. Churchill Livingstone, Elsevier, Philadelphia.

Wiener, W. and Siffermann, E. (1997). "The Development of the Profession of Orientation and Mobility." In Blasch, B., Wiener, W. and Welsh, R. (eds.). **Foundations of Orientation and Mobility**. 2<sup>nd</sup> Edition. AFB Press, American foundation for the Blind, New York.



Wiener, W., Welsh, R. and Blasch, B. (2010). **Foundations of Orientation and Mobility, Volume I, History and Theory**. 3<sup>rd</sup> Edition. AFB Press, American foundation for the Blind, New York.

World Health Organization (WHO) (2002). **Towards a Common Language for Functioning, Disability and Health ICF**. WHO, Geneva.

Yin, R. K. (2003). **Applications of Case Study Research**. 2<sup>nd</sup> Edition. Sage Publications, London.

Young, B. (2012). **Forward. State of the Nation 2012 England**. Diabetes UK, London.

Zebehazy, K. T., Zimmerman, G. J. and Fox, L. A. (2005). Use of Digital Video to Assess Orientation and Mobility Observational Skills. **Journal of Visual Impairment and Blindness**, 99 (10): 646-658.

Zimmerman, B. J. (2009). "Development and Adaptation of Expertise: The Role of Self-Regulatory Processes and Beliefs." In Ericsson, K. A., Charness, N., Feltovich, P. J. and Hoffman, R. R. (eds.). **The Cambridge Handbook of Expertise and Expert Performance**. Cambridge University Press, Cambridge.

## APPENDIX 1

# British Journal of Visual Impairment

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**From novice to expert: an investigation into the professional development of Rehabilitation Workers through a study of practice in technical rehabilitation interventions**

Andrew Dodgson and Steve Mccall

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# **From novice to expert: an investigation into the professional development of Rehabilitation Workers through a study of practice in technical rehabilitation interventions**

**ANDREW DODGSON** *Provision Solutions Ltd, London*

**STEVE MCCALL**

*Vision Impairment Centre for Teaching and Research (VICTAR),  
University of Birmingham, UK*

**ABSTRACT** Using the five-stage model of skill acquisition originally proposed by Dreyfus and Dreyfus (1986), this study investigates the professional development of Rehabilitation Workers (RWs) in the UK through analysis of their practice in training people with a vision impairment in the area of orientation and mobility. From interviews with RWs a clearer picture has emerged of the lack of professional development opportunities and the access to the knowledge of others required to facilitate progression from Novice to Expert in this specialized profession.

**KEY WORDS** *expert, mobility, novice, orientation, rehabilitation*

## **INTRODUCTION**

Over the past 40 years Rehabilitation Worker training courses in the UK have increased in academic status, moving from certification by professional bodies to diplomas in higher education (James, 1996). During this period a range of providers has been involved in training and, while there has been some variation in content and focus, the programmes appear to share a common and fixed view of the principles of technical rehabilitation, many of which are based on interventions developed in

## APPENDIX 2

### **Form EC2 for POSTGRADUATE RESEARCH (PGR) STUDENTS**

#### **MPhilA, MPhilB, MPhil/PhD, EdD, PhD IS**

This form must be completed by ALL students studying for postgraduate research degrees and can be included as part of the thesis even in cases where no formal submission is made to the Ethics Committee. Supervisors are also responsible for checking and conforming to the ethical guidelines and frameworks of other societies, bodies or agencies that may be relevant to the students work.

#### **Tracking the Form**

- I. Part A completed by the student
- II. Part B completed by the supervisor
- III. Supervisor refers proposal to Ethics Committee if necessary
- IV. Supervisor keeps copy of the form and sends the original to the Student Research Office, School of Education
- V. Student Research Office – form signed by Management Team, original kept in student file

#### **Part A: to be completed by the STUDENT**

NAME: Andrew Dodgson

COURSE OF STUDY (MPhil; PhD; EdD etc): MPhil

POSTAL ADDRESS FOR REPLY:

CONTACT TELEPHONE NUMBER:

E-MAIL ADDRESS:

DATE: 8<sup>th</sup> January 2007

NAME OF SUPERVISOR: Dr Steve McCall

PROPOSED PROJECT TITLE:

Theory to Practice. Identifying the factors relevant to the interpretation of Orientation and Mobility theory into practice and the professional development of the O&M instructor from Novice to Expert.

## BREIF OUTLINE OF PROJECT:

Over the years, a number of research projects have proposed to identify the needs of people who are visually impaired which in turn has influenced governmental legislation and local government resource management. These research projects have also been interpreted by organisations of the voluntary sector, such as Guide Dogs and the Royal National Institute of the Blind to develop the curriculum content of the rehabilitation studies courses, delivered in partnership with the Universities of Birmingham, and Central England. As a result of this interpretation and the academic requirements of the educational institutions the current and past Rehabilitation Studies courses have differed greatly in content, focus and style of delivery. Although research into the needs of visually impaired people has been prolific, there is a marked lack of research into the knowledge base and continued professional development requirements of practising professionals delivering services to people who are visually impaired. In order for the rehabilitation studies curriculum to be effective, consistent and to match practice needs, evidence of the factors relevant to the transposition of theoretical knowledge into practice and those required for effective post qualifying professional development is required.

This research project, aims to collect qualitative data through active semi-structured interviews with qualified rehabilitation workers. Focussing on the interpretation of academic Orientation and Mobility theory and the practising professionals perception of the influence, environment, education, personal development and professional support has on their professional development and practice in this area. This will be supported by independent analysis of videoed Orientation and Mobility training sessions, with the aim of identifying rationale for technique adaptation as a measure of progression from novice to expert.

## MAIN ETHICAL CONSIDERATION(S) OF THE PROJECT

The participant sample for data collection is to be randomly selected from the current population of rehabilitation workers. All participants will be adults, employed and hold relevant qualifications in rehabilitation studies. Some of the participants may have a disability, however the interview schedule is structured to control and restrict discussion and focus to educational development, professional experience and associated opinion.

Participant details will need to be collated; it is intended to keep this to the bare minimum of name and work telephone number, date of interview and date of video session. These details will be stored on Excell spreadsheet. The stored information will not be linked in any way to interview data.

The data collection also involves the use of video and accompanied audio recordings of Orientation and Mobility training sessions involving a rehabilitation worker and a client (a service user of the agency supplying services to people who are visually impaired). The client is considered to be vulnerable and as a result, hierarchical permission will be sort from the appropriate representatives of the organisation supplying the Orientation and Mobility service. The client will be recruited by the research participant and informed consent will be sort by the participant and the researcher prior to the video event.

These recordings will be examined, for analysis by an independent expert who may be able to identify both the rehabilitation worker and the client. The video recording will be manipulated to eliminate any possibility of identification via facial recognition. The accompanying audio track of verbal instruction and discussion may inform the analyst of identity but due to the importance of hearing both the conversation and intonation this cannot be manipulated as a result the independent expert will be expected to agree to a confidentiality agreement prior to seeing any recordings.

RESEARCH FUNDING AGENCY (if any):                      None

DURATION OF PROPOSED PROJECT:

DATE YOU WISH TO START DATA COLLECTION:

**Please provide details on the following aspects of the research:**

1. What are your intended methods of recruitment, data collection and analysis?

The intended method of recruitment is via personal contact by the researcher, either face-to-face or via telephone to establish participant agreement. Following this, the permission of the appropriate professionals from the senior management hierarchy of the organisation will be secured. Once agreements are in place, the worker will be instructed in the recruitment of a client with whom they intend to deliver mobility training (attachment 1). The client's informed consent will be checked by the researcher prior to the video recording of the training session.

The interview method of data collection is intended to be through a 1 to 1 ½ hour 'active semi-structured interviews', undertaken within the participants workplace at a time and location convenient to them. The interview will be digitally recorded and stored, and handwritten researcher notes taken. For analysis the original handwritten notes will be transcribed and the digital recordings reviewed by the researcher.

The Orientation and Mobility training session will be recorded as a digital sequence via camcorder and once manipulated will be displayed directly from the recorded tape to television/monitor for analysis. The digital audio recording of the training session will be stored using the same procedure as the interview recording and will be played for analysis at the same time as the video recording.

2. How will you make sure that all participants understand the process in which they are to be engaged and that they provide their voluntary and informed consent? If the study involves working with children or other vulnerable groups, how have you considered their rights and protection?

The purpose and focus of the research project will be discussed during initial recruitment and again prior to undertaking the interview schedule. The participant will be issued with a written 'Interview Brief' (attachment 2) explaining the process, this is designed specifically to ensure their consent is voluntary and informed.

The hierarchal structure of the social services departments and voluntary agencies will be approached, and their agreement sort and documented, prior to undertaking the video recordings.

The client receiving the Orientation and Mobility training will be recruited by the participant, who will choose them specifically for their understanding of the purpose of the researcher's presence and recording. The clients understanding will be checked by the researcher prior to the commencement of the session.

3. How will you make sure that participants clearly understand their right to withdraw from the study?

All participants will be issued with an 'Interview Briefing' (attachment 2) document, which clearly explains their right to withdraw without prejudice. The right to withdraw will be discussed with the participant immediately prior to the interview and agreement to proceed obtained.

4. Please describe how you will ensure the confidentiality and anonymity of participants. Where this is not guaranteed, please justify your approach.

A Microsoft Excel database will be created holding the name and telephone contact details of the participants, only accessible to the researcher and used to avoid duplication and aid effective progress.

The written and digitally recorded data will be identified by numerical code only with no link between the database and recordings.

All video recording will be manipulated to make facial recognition impossible.

The analysis of the video and audio recording, by an independent expert may expose the identity of the participant and the client to that person; as a result a formal confidentiality agreement (attachment 3) will be undertaken when recruiting and prior to analysis.

5. Describe any possible detrimental effects of the study and your strategies for dealing with them.

The possible detrimental effects of the interview process may include feelings of professional concern about opinions stated and the interpretation of information supplied. To avoid any confusion or concern over misinterpretation, following the collation of data received during the interview, participants will be provided with a transcript of the interview for them to add comments/amendments. They will also be shown the video and audio recordings and encouraged to discuss and comment on the content.

It may also be the case that some participants may question their professional opinions and performance. All participants will be issued with an 'Interview Brief' (attachment 2) stating contact details of the researcher, and encouraged to contact the interviewer if they would like to discuss any aspects of the interview or related feelings that occur within one month of

participating in the process. This opportunity will be highlighted by the researcher at the end of the interview.

6. How will you ensure the safe and appropriate storage and handling of data?

All audio, written and word processed data will be stored on Compact Disk, using only numbered coding for identification. Video recordings will be stored on their original tape format, using the same numbered coding system for identification. All data will be kept in a locked filing cabinet. The researcher has sole access to data and recordings.

7. If during the course of the research you are made aware of harmful or illegal behaviour, how do you intend to handle disclosure or nondisclosure of such information?

All participants will receive an 'Interview Brief' (attachment 2) prior to the interview, which states clearly that any disclosure of illegal behaviour will be reported to the appropriate authority.

8. If the research design demands some degree of subterfuge or undisclosed research activity, how have you justified this and how and when will this be discussed with participants?

This research design does not require subterfuge or undisclosed research activity, as a result no provision for this will be arranged.

9. How do you intend to disseminate your research findings to participants?

The research findings are intended to supply data and analysis for completion of a research degree programme. Following completion of the study the findings (subject to the University of Birmingham policy) will be available to all participants upon request.

### **Client Selection**

Please select a client who:

- I. has not received Long Cane training
- II. has been assessed for Long Cane mobility training
- III. will be the recipient of Long Cane mobility training
- IV. understands the purpose of this research project
- V. agrees to take part in the research project
- VI. agrees to being videoed during the training session
- VII. understands that all information will be stored securely and confidentially
- VIII. understands that the recording will be viewed by an independent expert
- IX. is aware that their abilities and performance are not the focus of the recording

Please read the following statement to the client who has agreed to be part of the video recording for this research project.

Thank you for agreeing to be part of this research project.



This research project is part of a post graduate degree programme delivered by, the Visual Impairment Centre for Teaching and Research at Birmingham University. The projects aims are to investigate how the O&M techniques, delivered during O&M instructor and rehabilitation studies courses, are interpreted, adapted and used in practice, and the factors relevant to effective interpretation of academic instruction and continued professional development.

Please feel free to talk openly and behave a normal during the mobility training session. The analysis of the recording will not focus in any way on your performance or abilities; it is solely focussed on the O&M techniques and their delivery.

The recordings will be manipulated to make facial recognition impossible and will be numerically coded for storage. The video and audio recordings will be used for the sole purpose of this research project and no reference to your name or personal details will be available to the researcher or stored with the recording.

Following analysis of the video and audio recording they will be erased. No individuals will be identifiable from references made in the final report.

If at any time you wish to withdraw your participation in this research project please indicate this to the rehabilitation worker. You may withdraw at anytime without prejudice.

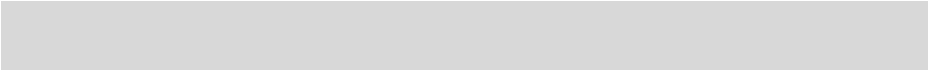
This research project may require further video/audio recordings, when asked, please indicate if you would be available for follow-up contact. Contact will only be made through your rehabilitation worker and all discussion and videoing will be in the presence of the rehabilitation worker.

Prior to the session the researcher (Andrew Dodgson) will check that you are happy for him to be present and record the session, please feel free to withdraw your consent at this point. The researcher will also be available at the end of the session to briefly discuss any concerns or issues that you may have.

Are you happy to take part in this research project?

## **Confidentiality agreement**

Andrew Dodgson



University of Birmingham

Analysts Name:

Address:

[Date]

Dear

**Re: Theory to Practice. Identifying the factors relevant to the interpretation of**

**Orientation and Mobility theory into practice and the professional development of**

**The O&M instructor from Novice to Expert.**

I write with reference to the above project ("the Project") which we are in the process of discussing. As part of the Project we will provide you with access to certain confidential information and images of rehabilitation workers and individuals with a visual impairment receiving Orientation and Mobility training ("the Confidential Information") and in consideration of me providing to you such Confidential Information you hereby undertake to me to accept and comply with the following terms and conditions:

- 1.1. You will maintain the Confidential Information in the strictest confidence and will not divulge any of the Confidential Information to any third party without our prior written permission.
- 1.2. You will not make use of the Confidential Information other than for the purpose of evaluating and facilitating the proposed Project ("the Purpose").
- 1.3. You will not make use of any of the Confidential Information in connection with any similar project undertaken by you or on your behalf.
- 1.4. You acknowledge our proprietary rights in the Confidential Information and that the disclosure of the Confidential Information shall not be deemed to confer upon you any rights whatsoever in respect of any part thereof.

- 1.5. You will confirm to us in writing at any time on request that you have complied with the provisions hereof and if so requested shall provide a statutory declaration to the effect that no Confidential Information (in whatever medium) has been used or disclosed to any third party by you in breach of the terms of this letter.
2. You further acknowledge and confirm as follows:
  - 2.1. Neither we, nor our employees, nor any of our advisers nor any of our agents, officers or employees accept responsibility or liability for or make any representation, statement or expression of opinion or warranty, express or implied, with respect to the accuracy or completeness of the Confidential Information or any oral communication in connection therewith unless and save to the extent that such representation, statement or expression of opinion or warranty is expressly incorporated into any written agreement subsequently entered into between us in connection with the Project.
  - 2.2. The provisions of this letter shall continue in effect notwithstanding any decision by either of us not to proceed with the Project but shall cease only in accordance with the terms of this letter.
  - 2.3. You acknowledge that:
    - 2.3.1. the Confidential Information is highly confidential and sensitive;
    - 2.3.2. disclosure may cause irreparable damage to us and the people represented in the video and audio recording;
    - 2.3.3. any use or outside knowledge of the Confidential Information may be highly damaging to the confidentiality of the people represented in the video and audio recording.
    - 2.3.4. damages alone would not be an adequate remedy for any breach by you of the provisions of this letter and, accordingly, without prejudice to any and all other rights or remedies that we may have, we shall be entitled without proof of special damage to the remedies of injunction, specific performance and other equitable relief for any threatened or actual breach of the provisions of this letter.
3. We both agree that the obligations of confidentiality and non-use imposed pursuant to this letter shall apply for a period of 50 years from the date hereof.
4. Nothing in this letter shall be construed to grant to you any licence or rights in respect of the Confidential Information or in connection with the Project.
5. You accept full liability for and will indemnify and keep us fully indemnified against all and any loss whatsoever and howsoever arising from any disclosure or unauthorised use of the Confidential Information by you, your advisers, agents or representatives or any associated company.
6. The restrictions on use or disclosure of the Confidential Information will not apply to:

- 6.1 any information which is generally available to the public (provided this has not happened because of a breach of this Agreement or any other duty of confidentiality);
  - 6.2 any information received by you from third parties who are not subject to any confidentiality obligations in respect thereof;
  - 6.3 any information which is required by law to be disclosed pursuant to an Order of a Court or equivalent authority.
- 7. The foregoing constitutes the entire Agreement between us with respect to the Confidential Information and supersedes and cancels any prior representation, understanding and commitment (whether oral or written) between us with respect to our Confidential Information. The terms of this letter Agreement can only be changed by a written document, agreed upon by both of us and signed by duly authorised persons.
  - 8. If at any time any provision of this agreement is found to be illegal, unenforceable or invalid in whole or in part then the remaining portions of such provisions and other provisions of this Agreement continues to be binding and in full force and effect.
  - 9. The provisions hereof shall be governed and construed by English law, and by your acceptance hereof you agree to submit to the exclusive jurisdiction of the English Courts.

Please indicate your acceptance of the above by signing and returning the enclosed copy of this letter.

Yours faithfully

Andrew Dodgson

## **Form EC2 for POSTGRADUATE RESEARCH (PGR) STUDENTS**

### **MPhilA, MPhilB, MPhil/PhD, EdD, PhD IS**

This form must be completed by ALL students studying for postgraduate research degrees and can be included as part of the thesis even in cases where no formal submission is made to the Ethics Committee. Supervisors are also responsible for checking and conforming to the ethical guidelines and frameworks of other societies, bodies or agencies that may be relevant to the students work.

### **Tracking the Form**

- VI. Part A completed by the student
- VII. Part B completed by the supervisor
- VIII. Supervisor refers proposal to Ethics Committee if necessary
- IX. Supervisor keeps copy of the form and sends the original to the Student Research Office, School of Education
- X. Student Research Office – form signed by Management Team, original kept in student file

### **Part A: to be completed by the STUDENT**

NAME: Andrew Dodgson

COURSE OF STUDY (MPhil; PhD; EdD etc): PhD

POSTAL ADDRESS FOR REPLY:

CONTACT TELEPHONE NUMBER:

E-MAIL ADDRESS:

DATE: 9<sup>th</sup> September 2010

NAME OF SUPERVISOR: Dr Steve McCall

PROPOSED PROJECT TITLE:

**The Art in the Science of Rehabilitation** – *Expert interpretations of theoretical techniques of Orientation and Mobility that meet the rehabilitative needs of Older Visually impaired people.*

BREIF OUTLINE OF PROJECT:

The discipline of 'Orientation and Mobility' relates to the development of the knowledge, understanding and skills required by visually impaired people for dependent and independent

travel. Training in this area is commonly delivered by rehabilitation workers and is based upon the application of classical Orientation and Mobility techniques, skills and methodology originally developed for war-blinded servicemen.

Current research suggests that there are between 1.6 and 2.2 million people in the UK aged 65 and over who have registerable eye conditions (Charles 2007). Indeed Age Related Macular Degeneration (ARMD) accounts for almost 50% of all people registered as blind or partially sighted (Royal College of Ophthalmologists, 2000). Older People therefore constitute the RWs' major client group (Dodgson *et al* 2009), and with the proportion of the population aged 65 -75 years likely to increase by 60% over the next 25 years, with an even higher increase (70%) in the number of people over the age of 75 (Help the Aged 2006) this client group is set to increase.

The effects of ageing also include movement and hearing problems (DoH 2001), which, when combined with a visual impairment, have a complex and multiplicative impact upon independence. As a result the rehabilitation worker working with Older Visually impaired people usually has to adapt the classical Orientation and Mobility strategies they are taught in their training to meet the biopsychosocial needs of the individual. To date there has been no detailed guidance issued to rehabilitation workers about the principles of adapting their practice to meet the needs of Older People.

This research project aims to uncover the practice based paradigms of Orientation and Mobility developed by rehabilitation workers for intervention with Older Visually impaired people.

#### MAIN ETHICAL CONSIDERATION(S) OF THE PROJECT

This project aims to gather data from rehabilitation workers, a profession with somewhere in the region of 550 practising professionals. The majority of these professionals are employed in social services or the voluntary sector. The data required is opinion and perspectives of working practice, which in some cases may contradict the theoretical processes taught during rehabilitation worker training. For this data to be obtained these professionals must feel free to express their opinions and perspectives without fear of professional judgement or disciplinary action resulting from misinterpretation or misunderstanding of their application and adaptation of theory. To challenge these issues a transparent research agenda and schedule must be maintained along with secure and anonymous storage of data.

RESEARCH FUNDING AGENCY (if any):                      None

DURATION OF PROPOSED PROJECT:                      6 months

DATE YOU WISH TO START DATA COLLECTION:

#### **Please provide details on the following aspects of the research:**

1. What are your intended methods of recruitment, data collection and analysis?

**Sample Recruitment:** All participants will be adults, employed within social services or the voluntary sector and hold relevant qualifications in rehabilitation studies. The participant sample for data collection is to be selected from the current population of rehabilitation workers. This will be achieved by personal invitation at the Social Care Association annual conference and by e-mail invitation through the website [www.rehabworker.co.uk](http://www.rehabworker.co.uk).

**Data Collection:** Participant details will be collated for analysis; this will include Name, Gender, Employer, Job Title, Qualifications Held, Years in Practice, E-mail and Telephone contact details. In addition to the general information, the research data will consist of digitally recorded telephone interviews and handwritten notes. All data will be stored electronically and password protected for the sole use of the researcher and University supervisor, no reference to the source of the recording will be published or documented.

**Analysis:** Research data will be subject to a mixed method of quantitative and qualitative analysis, undertaken by Andrew Dodgson (Researcher). This data and analysis will also be reviewed by Dr S McCall (University of Birmingham) and available for analysis by University appointed representatives.

2. How will you make sure that all participants understand the process in which they are to be engaged and that they provide their voluntary and informed consent? If the study involves working with children or other vulnerable groups, how have you considered their rights and protection?

The purpose and focus of the research project will be discussed during initial recruitment. Prior to submitting the 'General Information' questionnaire participants will receive a 'Research Brief' (attached) clearly stating the research schedule and participant commitment. Participants will also be asked to confirm their informed consent prior to undertaking the telephone interview.

3. How will you make sure that participants clearly understand their right to withdraw from the study?

All participants will be issued with an 'Interview Briefing' (attached) document, which clearly explains their right to withdraw without prejudice. The right to withdraw will be discussed with the participant immediately prior to the interview and agreement to proceed obtained.

4. Please describe how you will ensure the confidentiality and anonymity of participants. Where this is not guaranteed, please justify your approach.

A Microsoft Excel database will be created holding the name, e-mail and telephone contact details of the participants, this will be used solely by the researcher to facilitate contact, avoid duplication and for data analysis. The written and digitally recorded data will be identified by a referenced numerical code linked to personal details. This code will be solely known to the researcher.

5. Describe any possible detrimental effects of the study and your strategies for dealing with them.

The possible detrimental effects of the interview process may include feelings of professional concern about opinions stated and the interpretation of information supplied. To avoid any confusion or concern over misinterpretation, following the collation of data received during the interview, participants can request a transcript of the interview for them to add comments/amendments.

It may also be the case that some participants may question their professional opinions and performance. All participants will be issued with an 'Interview Brief' (attachment 2) stating contact details of the researcher, and encouraged to contact the interviewer if they would like to discuss any aspects of the interview or related feelings that occur within one month of participating in the process. This opportunity will be highlighted by the researcher at the end of the interview.

6. How will you ensure the safe and appropriate storage and handling of data?

All audio, written and word processed data will be stored on an independent storage device (external hard drive), using only numbered coding for identification. All data will be password protected with sole access for the researcher.

7. If during the course of the research you are made aware of harmful or illegal behaviour, how do you intend to handle disclosure or nondisclosure of such information?

All participants will receive an 'Interview Brief' (attached) prior to the interview, which states clearly that any disclosure of illegal behaviour will be reported to the appropriate authority.

8. If the research design demands some degree of subterfuge or undisclosed research activity, how have you justified this and how and when will this be discussed with participants?

This research design does not require subterfuge or undisclosed research activity, as a result no provision for this will be arranged.

9. How do you intend to disseminate your research findings to participants?

Following completion of the study the findings (subject to the University of Birmingham policy) will be available to all participants upon request. The research findings are intended to supply data and analysis for completion of a PhD research degree programme and for peer reviewed publication.



## APPENDIX 3

NB Invitation

### **Research Participants Needed.**

#### **Investigating Orientation and Mobility practice that meets the needs of visually impaired people.**

Dear Colleague

I am currently undertaking a research programme supervised by Dr Steve McCall of the University of Birmingham Visual Impairment Centre for Teaching and Research. The overarching aim of the study is to identify 'best' Orientation and Mobility practice in relation to typical adult clients. Achievement of this aim is intended to inform rehabilitation worker practice, Service Providers and Training Organisations by revealing essential factors of Orientation and Mobility practice required to meet the needs of visually impaired people.

I am inviting all qualified rehabilitation workers/Officers to participate in this research, during which they will have the opportunity to reflect upon their practice, share experiences and contribute to the development of a detailed knowledge base of effective 'real life' Orientation and Mobility intervention. It is intended that this research programme will propose a model of 'Good Practice' **this model will be made available 'free of charge' to all research participants.**

Participants in this programme will be asked to:

- Complete a general information questionnaire
- Undertake a 45-60 minute telephone discussion of their opinions of Orientation and Mobility practice.

If you are a qualified rehabilitation worker/Officer and would like to participate in this project please contact me at [REDACTED]

Alternatively if you would like to discuss this research further I can be contacted directly on [REDACTED]

Thank you

Andrew Dodgson

## **APPENDIX 4 – STUDY 1 SURVEY MATERIALS**

### **APPENDIX 4.0 STUDY 1 – INTERVIEW SCHEDULE**

#### General information

Date: Interview Length: Gender: M/F  
Age: Date Qualified: Training Body:  
Qualification type: Current employment position:

#### **Overview of background and current situation**

1. What motivated you to become a RW?
2. How would you describe your current main environment of work?
3. What is the predominate client group demographic in your location?
4. How many O&M clients do you have on average per year?
5. What types of O&M do you teach in general?

#### **Relating O&M theory to practice**

6. Looking back – was your training in O&M easy to apply in practice?
7. Were the techniques ‘fit for purpose’ without adaptation or did you need to change them?
8. What aspects of your training in O&M have you never applied in practice?
9. Have you been able to expand your O&M knowledge, understanding & skills since you trained?

#### **Adaptation of Long Cane Techniques**

Watch this video it presents the basic techniques of two point touch technique.

10. Was this how two-point-touch was taught to you?
11. Do you insist that your clients adopt all of these techniques?
  - 11a. How do you adapt these techniques?
12. To what extent are your clients involved in the adaptation process?
13. What percentage of your clients successfully achieve the Long Cane training goals you set for them?

### **O&M Practice**

14. At what point in your practice did you feel confident in your delivery of O&M training?
- 14a. what were the factors that led you to feel confident?
- 14b. do you discuss, consult or seek permission prior to delivering O&M sessions?
15. Describe an O&M session with a client which you feel was the most influential in the development of your practice (Eureka moment)?
16. Describe an O&M session with a client in which you feel your practice was Inadequate?
17. Describe the process of planning you go through before you deliver a long cane training session?

### **Measurement of Quality**

18. How would you rate the quality of the O&M training sessions you deliver?

extremely effective	very effective	effective	fairly effective	ineffective
1	2	3	4	5

19. What factors do you measure your effectiveness by?

### **Professional development**

20. What attributes best describe you as a practitioner?
21. How do you feel about training ancillary workers to deliver O&M Training?

### **Training & Development**

22. How could the training that you received be changed to be more effective?
23. What factors do you consider are important to the development of your confidence in your practice?

## **APPENDIX 4.1 STUDY 1 – PARTICIPANT BRIEF**

Thank you for agreeing to be a participant.

This research project is part of a post graduate degree programme delivered by, the Visual Impairment Centre for Teaching and Research at Birmingham University. The projects aims are to investigate how the O&M techniques, delivered during O&M instructor and rehabilitation studies courses, are interpreted, adapted and used in practice, and the factors relevant to effective interpretation of academic instruction and continued professional development from Novice to Expert.

This will be achieved through a series of interviews with O&M specialists.

This interview will last approximately 1 hour during which you will be asked a variety of questions, to comment on statements, and talk about your experiences of professional development and the learning and teaching of Orientation and Mobility techniques for people who are visually impaired. Please feel free to talk openly about your experiences and views, all information received will be stored electronically for the period of the research project with no indication of its source, name or details of where or from whom the information was received.

These interviews are designed to be undertaken within the workplace, and all data received will be solely used for analysis for this research project. The interview will be digitally recorded and transcribed, following which the digital recording will be erased. No individuals will be identifiable from references made in the final report. If at any time during the interview you would like to take a comfort break or end your participation, please indicate this to the interviewer. You may do so without prejudice.

This research project may require further interview/ discussion sessions, when asked, please indicate if you would be available for follow-up contact. The researcher is obliged to report any disclosure of illegal activity or behaviour to the appropriate authority. If this situation occurs you will be informed of the researcher's intentions.

Following the interview there will be the opportunity for a brief verbal debrief and the interviewer (Andrew Dodgson) will be available throughout the following month on [REDACTED] to discuss any concerns or issues that arise as a result of the interview.

Do you have any questions before the interview? Are you happy to proceed?

## APPENDIX 4.2 STUDY 1 – SUPPORTING LETTER



UNIVERSITY OF  
BIRMINGHAM

School of Education

**Visual Impairment Centre for  
Teaching and Research**

Edgbaston  
Birmingham B15 2TT  
Telephone 0121 414 6733  
Fax 0121 414 4865  
victar-enquiries@bham.ac.uk  
www.education.bham.ac.uk/research/victar

15 January 2007  
Our Ref: SMItrs/Dodgson

*To whom it may concern*

**Re: Andrew Dodgson**

I am pleased to confirm that Andrew is registered for a research degree at the University of Birmingham, School of Education. His chosen research topic is the development of approaches to the development of orientation and mobility skills in adults with visual impairment.

I am supervising Andrew's work and would be grateful for any support you are able to provide to Andrew in his study which we hope will contribute to a better understanding of the processes involved in this key area of independence training. If you would like further information about Andrew's work, either Andrew or myself will be pleased to discuss this with you.

Signed:

Dr Steve McCall  
Lecturer in Visual Impairment (Special Education)

## **APPENDIX 5 STUDY 2 – SURVEY MATERIALS**

### **APPENDIX 5.0 STUDY 2 – VIGNETTE OF A TYPICAL REHABILITATION WORKER CLIENT**

Mrs Juliet Williams lives alone in a 3 bedroom terrace house. She shared this home with her husband for over 40 years, before following a short illness he died 2 years ago. Juliet has a son living abroad who contacts her by telephone every week and a daughter with 2 young children living in the same town, about 15 minutes' drive from her house. Juliet spends every Sunday with her daughter and family at their home; she is picked up by her son-in-law in the morning and returned home late in the afternoon.

Juliet is 73 years old and is in good physical health. She has Age Related Macular Degeneration resulting in registration as sight impaired / partially sighted. She was told at the time of diagnosis that she would retain some peripheral vision.

Juliet was assessed by a member of social services with her daughter present, she was found to be self-sufficient in the home and receiving the benefits available to her. The assessment identified that although she has a number of friends she does not receive any visitors and spends a great deal of time alone. Juliet moves around her home and uses the stairs without difficulty, the assessor observed that she shuffles her feet when she walks.

When asked about going out Juliet said that her daughter gets her shopping, but doesn't have time to take her along, her daughter added that it is impossible for her mother to go out because she cannot see what is in front of her. Juliet said that she would like to go out more but everything takes such a long time, the pavements were so bad that she might fall, and the couple of times she has gone out people bumped into her. Juliet gave detailed descriptions of the local area, the location of shops, her friend's and daughters houses but was concerned about the speed and quietness of traffic and the unruly attitudes of the young people near where she lives.

Juliet has been referred for a mobility assessment.

## **APPENDIX 5.1 STUDY 2 – PARTICIPANT BRIEF**

### **Expertise in Practice**

*Investigating the practice based paradigms developed through experience by rehabilitation workers.*

Thank you for your interest in participating in this research project. This is part of an ongoing research programme being undertaken by Andrew Dodgson and supervised by Dr S McCall of the University of Birmingham Visual Impairment Centre for Teaching and Research. The goal of the programme is to produce a high quality evidence-base to inform the practice of RW training organisations.

### **The Aim of the study**

The Orientation and Mobility (O&M) techniques delivered during rehabilitation worker (RW) training are predominantly based upon those documented in the publications of Hill and Ponder (1976), Blasch et al (1997) and Jacobson (1993). There is currently very little evidence of the suitability of these techniques for the RW's predominant client group (older people). Building on the recommendations of the preliminary research programme (attached), the overarching aim of the study is to identify '*best*' working practice in relation to *typical* adult clients (i.e. older people). Achievement of this aim is intended to inform RW practice and training by:

- Revealing essential factors of O&M practice required to meet the needs of older people
- Identifying critical elements of effective future training programme design and delivery

### **The benefits of contribution**

It is intended that this research programme will benefit both the RW community and rehabilitation studies training providers. Participants will have the invaluable opportunity to reflect upon their practice and share experiences and in the process will contribute to the development of a detailed knowledge base of effective 'real life' O&M intervention

### **How will the data be gathered?**

This programme utilises a Delphi method - a structured process of data gathering from a panel of experts through online communication. Whilst promoting the benefits of team work for problem solving, planning and prediction, this process effectively circumvents the organisational and logistical challenges of managing meetings and the negative aspects of group interactions.

## Commitment

Participation in this research programme requires responses to 8 e-mails over a six month period. Each e-mail should take up to 1 hour to complete and need to be returned to the researcher within 10 working days. When responding to the e-mails participants are requested to be open and honest and document their opinions of the ***ideal way of working with and meeting the O&M needs of older people with a vision impairment***. This may be different from current working practice and organisation policy.

The first e-mail requests general information, (e.g. your qualifications and employment details etc..). Once returned the following process will commence.

<b>Round 1</b>	E-mail 1  Initial Questionnaire	E-mail 2  An anonymised summary of responses for comment, confirmation and modification of responses.
<b>Round 2</b>	E-mail 1  Further Investigation Questionnaire (FIQ) based on round 1 results & summary comments	E-mail 2  An anonymised summary of responses for comment, confirmation and modification of responses.
<b>Round 3</b>	E-mail 1  FIQ – based on round 2 results & summary comments.	E-mail 2  An anonymised summary of responses for comment, confirmation and modification of responses.

Finally an e-mail debrief, will ask for evaluation of the process and experiences of undertaking the research. The researcher will also be available throughout the month following the final contact to discuss any concerns or issues that arise as a result of your participation in this research programme.

## Confidentiality

All information received during this project will be stored electronically for the period of the research with no indication of its source, name or details of where or from whom the information was received. All data received will be used for analysis for this research project and the publication of results. No individuals will be identifiable from references made in the final report or subsequent publications.




The researcher is ethically obliged to report any disclosure of illegal activity or behaviour to the appropriate authority. If this situation occurs you will be informed of the researcher's intentions.

If at any time during the research process you would like to end your participation, please indicate this to the researcher. You may do so without prejudice. This research project may require further interview / discussion sessions, when asked, please indicate if you would be available for follow-up contact.

### **Managing Participation and Work**

The research questionnaires are designed to be undertaken within the workplace. I can send details of the research programme to your line manager with a request for them to facilitate your contribution by affording you the time and space in the workplace to formulate and document your responses. Please indicate to the researcher if this is required.

If you are happy to continue with your participation in this research programme please acknowledge your intention by completing the general information questionnaire and e-mailing it to 

## APPENDIX 5.2 STUDY 2 – GENERAL INFORMATION QUESTIONNAIRE

Please complete the following and return by e-mail within 10 working days.

<b>Name:</b>			
<b>Gender:</b>	Male / Female	<b>Age:</b>	
<b>Employer:</b>			
<b>Employment Title:</b>			
<b>Description of the environment in which your clients live:</b>			
<b>RW Qualification held:</b>			
<b>With which institution did you undertake your RW training?</b>			
<b>Date Qualified:</b>			
<b>Post Qualification Second Level training undertaken:</b>			
<b>E-mail address:</b>			
<b>Telephone:</b>			

## APPENDIX 5.3 STUDY 2 – 1<sup>ST</sup> ROUND DELPHI QUESTIONNAIRE

Please rate the attached ‘vignette’ as a representation of a typical client

*Delete as necessary*

<i>Extremely typical</i>	<i>Very typical</i>	<i>Typical</i>	<i>Fairly typical</i>	<i>Not typical</i>
<i>What additions or changes do you think would improve the vignette to more accurately represent a typical client</i>				

Using the vignette and imagining you can deliver an ideal service outside of institutional, time or financial constraints.

List up to <b>10 targets of O&amp;M training</b> that you think may benefit this client.	Please give your <b>justification</b> for choosing each of the O&M targets.
1)	
2)	
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	

## APPENDIX 5.4 STUDY 2 – 1<sup>ST</sup> ROUND PARTICIPANT RESPONSES

List up to <b>10 targets of O&amp;M training</b> that you think may benefit this client.	Please give your <b>justification</b> for choosing each of the O&M targets.
<p>Road Crossing. Including; awareness and traffic discrimination skills and the teaching of the specific techniques: Indenting crossing with parked cars and strategies for Pelicans Zebras etc</p>	<p>The aim of this target is to: Enable or enhance safe outdoor travel. enable her to decide when to use this technique and apply it to other places. enabling her to determine the period of time she is in the road, deal with parked vehicles, and identify kerbs depth &amp; height Offer support to build confidence in judgement using hearing and residual vision to aid the identification of traffic distance and in which areas she can utilise her vision and hearing in different lighting and weather conditions.</p>
<p>Use of audition for safe road crossing: Focussing attention: Judgement Identifying safe ‘windows’ in which to cross. Evaluating traffic flow, speed and direction. Client responsibility</p>	<p>Fear of traffic</p>
<p>Training in and use of a Mobility Aid. Symbol Cane Guide Cane Long Cane Walking Stick (if needed for support) Discuss advantages and disadvantages of use</p>	<p>The use of a cane may: prevent tripping over the pavement Improve ability to use vision (concentrate on the horizon whilst the cane scans the ground). enhance obstacle detection lead to greater confidence when dealing with the environment. Cannot see what is in front of her. Uneven pavements, people ‘bumping’ into her. A symbol cane may: stop people bumping into Juliet act as sign that she may need assistance in shops Introduces the concept of carrying a white cane but is also relatively discreet (gives the option of folding the cane up when she feels it’s not required). Improve safety when crossing roads and warn motorists of her reduced vision or walking speed</p>
<p>Sighted Guide Skills training for the client and family.  (including teaching the client to be assertive and how to teach family, friends and the public)</p>	<p>Skills to: enable her to manage people by being in control and asking for help. educate family members so that they have a better understanding of Juliet’s eye condition and so that they can guide her appropriately. May also encourage then to think that she can go out if they are educated about what she can see and the benefits of independent mobility. Give her confidence</p>

	<p>enable her to begin thinking of independence with assistance.</p> <p>gives the instructor a chance to assess how she responds to being taught</p>
<p>Learning Routes to:</p> <p>Local Shops</p> <p>Friends &amp; Family</p> <p>use of landmarks</p> <p>route recognition</p> <p>Independent shopping</p>	<p>Including the social element of going shopping and meeting people and may mean Juliet have more choice over what items are purchased (as opposed to daughter deciding).</p> <p>to develop a knowledge of how to build up a route</p> <p>To enable her to travel to the local shops for certain items that are needed in between main shop with daughter.</p> <p>To reduce isolation &amp; improve physical health through regular exercise &amp; promoting self-esteem and reducing dependence</p>
Public transport (Bus)	<p>To visit daughter/friends who may live further away than is a realistic walking distance &amp; improve independence and raise self-esteem.</p> <p>To further achieve a sense of independence</p>
OT intervention	To focus on feet shuffling as this could lead to tripping, especially on edges of rugs.
<p>Family: Awareness of sight loss and impact on daily living.</p> <p>Periodic attendance of training at appropriate points.</p>	<p>Increase knowledge of sight loss – practical hints and tips to assist with tasks.</p> <p>Demonstrate achievement and improve expectation of abilities.</p>
Effective use of residual vision, Eccentric Viewing Strategies and other sensory input for orientation	<p>Training to use residual vision effectively in an O&amp;M context to:</p> <p>enhance orientation</p> <p>build confidence when dealing with traffic.</p> <p>identify people, objects, and landmarks</p>
Motivation	To develop clear aims of what she wishes to achieve and assisting the creation of opportunities to go out.
Environmental assessment	<p>Identification and validation of barriers including:</p> <p>Pavements</p> <p>Attitude of young people</p>
Liaise with medical services (GP, Physiotherapists)	<p>To ascertain if the shuffling of feet is a precursor to:</p> <p>more significant physical problems – e-g- Parkinson's, dementia or a reaction to knowing she has a visual impairment.</p>
Observational assessment	<p>Evaluation of vision, balance, gait, posture, speed, hearing, current mobility, method of orientation, decision making, problem solving.</p> <p>Discussion regarding routes, any medical condition likely to affect training and ethos of training.</p>
Informal assessment of hearing	Road crossing and auditory mobility

Posture and Stride Length (Indoors or Park)	To help reduce the possibility of trips and falls (as body posture and stride length can reduce shuffling)
Dealing with assistance from the public	Identification of strategies for approaching members of the public to ask for assistance, giving options in relation to her own level of ability and independence.
Working together	Decide and agree on commencement of mobility training (or not) and which route to begin with. Enabling her to be a willing participant with almost a contractual agreement – or for the instructor to accept it is her choice not to go

## APPENDIX 5.5 STUDY 2 – 2<sup>ND</sup> ROUND DELPHI QUESTIONNAIRE

### Themes required for effective O&M intervention with older people.

For each of the themes (identified as required for effective O&M intervention with the client represented in the Vignette) please now consider the general application of O&M to older people.

Indicate below which of the themes you consider should remain, be removed or combined – please state why you have made your choice.

Remember –please consider themes that are applicable to the general population of older people

Theme	Remain	Remove	Combine	If Remove or Combine please state why
<b>Family</b>				
<b>Mobility Aids</b>				
<b>Public Transport</b>				
<b>Assessment &amp; Ongoing Review</b>				

*Describe how each of the targets you have chosen can be effectively implemented.*

<b>Orientation</b>				
<b>Sighted guide</b>				
<b>Other professionals</b>				
<b>Working together</b>				
<b>The individual</b>				

<b>Road crossing</b>				
<b>The public</b>				
<b>The senses</b>				



## APPENDIX 5.6. STUDY 2 – 2<sup>ND</sup> ROUND SUMMARY OF PARTICIPANT RESPONSES

The summary of all the panel responses that identified Assessment as a target was as follows.

### ***“Assessment (initial and Ongoing)***

#### ***Target:***

1. *Assessment*
2. *Environmental Assessment*
3. *Observational Assessment*
4. *Observation of movement – Posture & Gait*
5. *Ongoing Reviews*

#### ***Justification:***

1. *To develop clear aims of what she wishes to achieve and assisting the creation of opportunities to go out.*
2. *Identification and validation of barriers including:*
  - a. *Pavements*
  - b. *Attitude of young people*
3. *Evaluation of vision, balance, gait, posture, speed, hearing, current mobility, method of orientation, decision making, problem solving. Discussion regarding routes, any medical condition likely to affect training and ethos of training.*
4. *To monitor safety and achievement, of the client, family and worker, for agency or organisation. To enable the client to view the visits from a professional worker as such rather than as a regular visitor. (in some cases to guard against manipulation when the client or family are still afraid that the person will be harmed)*
  - a. *For the worker to have a professional approach to the training – not to have an open ended caseload.*
  - b. *To enable the resources of the agency to be fairly attributed*

#### ***Implementation:***

##### ***Environmental Assessment:***

*Walk through area for visual assessment of pavements and liaise with LA to request repairs and/or assess for alternative routes, which may be safer*

*Liaise with local Police Community Support Officers and / or local schools if the attitude of young people really is an issue*

*Observational functional assessment:*

*Ask client to take a short walk – use sighted guide if unable to walk without assistance. Ask questions about what can be seen – acuity, colour, distance, contrast. Observe balance – slopes, even and uneven terrain; Gait – light, heavy pronation/supronation etc; Check posture – upright, lean; Use guiding to check current speed and potential speed; Use environmental sounds to evaluate hearing; Observe how they walk – confident, vulnerable image, reckless; Observe and ask questions about what they use to orientate themselves in particular areas; Use what? Where? Why? How? to evaluate decision making and problem solving strategies.*

*Ongoing Reviews:*

*To be clear at the start about the aims and to have specific objectives of the training. (Part of the contractual agreement following assessment)*

*Reviews of the training and requested changes to routes or skills needed should be officially done as reviews, not ad hoc changes*

*When nearing the end of training planned, discuss with client how the final stages will be implemented (e.g. I will observe from a distance 3 times more and then you will do the route completely alone and I will meet you at the end – You can try that on your own and I will ring you to see how you got on*

*Deal with family and carers who do not believe a person with a visual impairment is safe on their own. If needs be have a meeting and/or enable them to observe the person too with the RW explaining the safety aspects*

*To inform the person that the training has now ended or that they are able to ask for a reassessment if they need new routes or if they have a further deterioration in vision or other senses – or if their circumstances change”*

The summary of the panel member's responses on the subject of Family was as follows.

***“Family:***

***Target:***

*Awareness of sight loss and impact on daily living.*

*Periodic attendance of training at appropriate points*

*Feelings and opinions of family members towards training*

***Justification:***

*To Increase their knowledge of sight loss and offer practical hints and tips to assist with tasks.*

*To demonstrate the achievement of the client to their family and improve their expectation of the clients ability to travel without sight.*

*To overcome any objections and allay fear*

***Implementation:***

*Sessions delivered as necessary, until Orientation and Mobility training completed to a safe and satisfactory standard and competencies are demonstrated.*

*Programme structure to include periodic review every four sessions”*

The summary of the responses provided by the panel members covering Mobility Aids was as follows.

***“Mobility Aids***

***Target:***

*Training in and use of a Mobility Aid.*

- 1. Symbol Cane*
- 2. Guide Cane*
- 3. Long Cane*

4. *Walking Stick (if needed for support)*

*Possible training on the use of:*

5. *Electronic aids*
6. *Cap/sunglasses/Visor*
7. *Low vision aids – monocular etc.*

***Justification:***

*A cane can be introduced:*

1. *As the traveller cannot see what is in front of her.*
2. *To detect and avoid uneven pavements & people 'bumping' into her*
3. *To improve safety when crossing roads and to warn motorists of her reduced vision or walking speed*

*The introduction of a cane may:*

1. *prevent tripping over the pavement*
2. *Improve ability to use vision (by offering the opportunity to concentrate on the horizon whilst the cane scans the ground).*
3. *enhance obstacle detection*
4. *lead to greater confidence when dealing with the environment.*

*A symbol cane may:*

1. *stop people bumping into the traveller*
2. *act as sign when seeking assistance in shops*
3. *Introduce the concept of carrying a white cane but is also relatively discreet (gives the option of folding the cane up when it's not required).*

*An electronic aid may*

1. *provide motivation to continue/start independent travel.*
2. *act as a back-up if lost*

3. *provide a more 'sexy' outlook to mobility*

***Implementation:***

*Discuss advantages and disadvantages of cane use*

*Try initial session to see if Juliet likes guide cane/ long cane and then deliver however many sessions are required incorporating other training elements until Juliet is a confident traveller- if walking stick to be used check length (following training by physio).*

*Teach the use of symbol cane (or white walking stick) (how to hold it safely and how to put it away in own body space) with an emphasis on the flexibility that the cane can be put away if feeling vulnerable. Encourage client to make decisions when to use it and when to keep it hidden.*

*One-to-one teaching over 2 or 3 sessions to optimise use of the cane around the familiar area.*

*Multiple sessions over an extended period of time to teach requisite skills and apply these to home area.*

*Re: Electronic aids:*

*Discussion prior to training to evaluate cognitive and physical ability to cope with feedback*

*Use first without cane or additional mobility aid"*

The summary of the panel member's responses that included the theme of orientation was as follows.

***"Orientation***

***Target:***

*Learning Routes to:*

1. *Local Shops*
2. *Friends & Family*
3. *use of landmarks*
4. *route recognition*

5. *independent shopping*
6. *use of sensory input for orientation*

***Justification:***

*To develop a knowledge of how to build up a route, including the social element of going shopping and meeting people, this may also promote choice over what items are purchased (as opposed to daughter deciding).*

*To enable her to travel to the local shops for certain items that are needed in between main shop with daughter.*

*To reduce isolation & improve physical health through regular exercise & promoting self-esteem and reducing dependence.*

*To provide additional motivation and encourage smoother travel*

***Implementation:***

*Training:*

1. *Begin on a known route and explain this is an exercise for choosing landmarks, then work on a less familiar route and work together to find out what suits her.*
2. *To work on use of landmarks and route recognition*
3. *RW to teach routes using clues, landmarks and Juliet's existing knowledge.*
4. *Specifically for shopping in local area*
5. ***Structured*** *indoor programme promoting the use of each sense individually and then combined*
6. *Gradual progression to travel indoor known route without mobility aid*
7. *Self-exploration of unknown indoor route"*

The agreed summary of panel responses relating to ‘Other Professionals’ was as follows.

***“Other Professionals***

***Target:***

1. *OT intervention*
2. *Liaise with medical services (GP, Physiotherapists etc.)*

***Justification:***

1. *To focus on feet shuffling as this could lead to tripping, especially on edges of rugs.*
2. *To ascertain if the shuffling of feet is a precursor to:*
  - a. *more significant physical problems – e-g- Parkinson’s, dementia*
  - b. *or a reaction to knowing she has a visual impairment.*
3. *To highlight any unforeseen but suspected health barriers to training*

***Implementation:***

*Begin by starting conversation with client about the fact that she seems to shuffle her feet. This may be just a habit developed in isolation and that talking about it may make her aware and stop. Monitor and ask if she has had it checked out and get permission to liaise with GP*

*Work with OT to see if improvement of posture can be achieved to prevent feet shuffling.*

*Contact with GP and/or consultant”*

The summary of panel responses covering the use of public transport was as follows.

***Public Transport***

***Target:***

*Public transport (Bus)*

***Justification:***

*To facilitate visiting daughter/friends who may live further away than is a realistic walking distance & improve independence and raise self-esteem.*

*To further achieve a sense of independence*

*Expand on use of sensory input for orientation*

***Implementation:***

*This would be a further stage of training if needed. (However many people with MD find that they have little problems with using buses, especially on routes where there is only one bus.*

*RW to teach travel on public transport over a number of sessions. Including where to find bus stop, how to identify correct bus, use of monocular (if needed).*

*Familiarisation of local buses at depot or bus station - Lesson X 1*

*Route travel on bus accompanied X 2*

*Independent travel under supervision X1*

*Travel route – use sensory information to determine position, route change, stops etc.*

The summary of responses on the subject of Road Crossing, approved by the panel was:

***“Target:***

*Road Crossing.*

*Including: awareness and traffic discrimination skills and the teaching of the specific techniques:*

- 1. Indenting*
- 2. crossing with parked cars*
- 3. strategies for use of crossings - Pelicans Zebras etc*
- 4. Sensory strategies for identifying windows of opportunity for safe navigation.*
- 5. Sensory strategies for identifying traffic flow/speed/direction*



6. *Decision making*
7. *Strategies for coping with the unexpected*

***Justification:***

*To:*

1. *enhance safe outdoor travel*
2. *enable decision making of when to use a technique and apply it to other places*
3. *enable the determination of the period of time spent in the road*
4. *deal with parked vehicles*
5. *identify kerbs depth & height*
6. *determine when it is safe and when it is not – and how to deal with both*

*Offer support to build confidence in judgement using hearing and residual vision to aid the identification of traffic distance and in which areas she can utilise her vision and hearing in different lighting and weather conditions.*

***Implementation:***

*Training delivered by RW, One-to-one teaching over a number of sessions in the home area to provide a familiar environment and enable the client to concentrate on skills acquisition. To:*

1. *help client to be able to judge when it is safe to cross*
2. *find appropriate crossing points*
3. *use controlled crossings*
4. *develop awareness and limitations of tactile paving*
5. *plan routes around safe crossings. Would be difficult to plan routes outside that avoided any road crossings.*

*Explain why indented road crossings are recommended – enable practice. Stand at junctions and asses, then stand at indented crossing point and asses. Enable client to make own decisions, but be clear if it was a place we would NOT recommend that a person with a visual impairment crosses. (Have this documented especially if there is any doubt)*

*Teach indented road crossings - Quiet areas learning technique (Lesson 1) - Parked Vehicles ( Lessons 1) Indented/Outdented Crossings (Lessons X1) Simple Blocks involving above (Lessons X 2) Straight Road Crossings (Lessons X1) More Complex Crossing/s Points (Lessons X 3).*

*Teach crossing with parked cars*

*Explain safety reasons why this would be recommended. Enable practice.*

*Further road crossing strategies Pelicans Zebras etc These may have already been implemented in earlier routes if they have been necessary. Explain safety reasons why this would be recommended. Enable practice.*

***No fixed amount of sessions** to reduce ‘invisible’ pressure to succeed.  
Constant re-evaluation of abilities and lesson structure to promote and feed confidence*

The consensus summary of panel responses on the subject of sighted guide was as follows.

***“Target:***

*Sighted Guide*

*Sighted Guide Skills training for the client and family (including teaching the client to be assertive and how to teach family, friends and the public)*

***Justification:***

*To:*

- 1. enable client to manage people by being in control and asking for help.*
- 2. educate family members so that they have a better understanding of eye conditions and so that they can guide appropriately. May also encourage them to think that she can go out if they are educated about what she can see and the benefits of independent mobility.*
- 3. Give her confidence*
- 4. enable her to begin thinking of independence with assistance*
- 5. give the instructor a chance to assess how she responds to being taught*
- 6. encourage a togetherness – may be all that’s needed at this stage*

***Implementation:***

*Offer teaching of sighted guide techniques to family members. (it may be that the family would find it easier to take the client shopping, or would be encouraged to take her to other places)*

*Teach the client by demonstration and practical walk.*

*Discuss how people who do not know SG would attempt to offer assistance, teach Hines Release*

*Family training could be delivered on a home visit or could invite to an awareness training day where other friends and relatives also invited.*

*Teach these skills including carrying a cane/walking stick, progressing onto family and friends until she is able to apply these skills to those without any knowledge in them.*

*Observe walking with partner”*

The summary of responses approved as representative by the panel was as follows.

***“Target:***

*Individual*

- 1. Posture and Stride Length*
- 2. Motivation*
- 3. Upright posture to promote good breathing and effective use of residual vision.*
- 4. Evaluate the need for other/alternative mobility aids*

***Justification:***

- 1. To help reduce the possibility of trips and falls (as body posture and stride length can reduce shuffling)*
- 2. To develop clear aims of what the client wishes to achieve and assisting the creation of opportunities to go out.*

***Implementation:***

- 1. Training Indoors or Park*

- a. *By using simple indoor routes time can be given to increasing confidence and the ability to walk and stride more appropriately.*
- b. *Lessons X 3 (As above)*
2. *Liaise with local provision of services depending on interests of client.*
  - a. *Provide incentives to go out and develop other social skills.*
  - b. *Find out why friends do not visit at home – would they appreciate a visit from the client?*
  - c. *Some of this role could be achieved through delegation to assistance staff or use of volunteers.*

*View in different environments to establish true picture of ability”*

The panel approved the following summary of their responses on the subject of interacting with the public.

***“Target:***

*Dealing with assistance from the public*

***Justification:***

*Identification of strategies for approaching members of the public to ask for assistance, giving options in relation to her own level of ability and independence.*

***Implementation:***

*Instruction, discussion and practical training in:*

1. *Teach Hines release*
2. *The importance of good Sighted Guide techniques*
3. *Discuss whether to use “your help needed cards” or whether the person would approach a member of the public directly. (More important with Deafblind)*
4. *Soliciting help when needed*
5. *The use of positive body language including:*

- a. *“I am quite capable, but I am a bit unsure at the moment” and “I need help”*
6. *How the public may offer assistance*
  - a. *Assertiveness*
  - b. *Declining help*
  - c. *Length of time expected to wait for assistance*
  - d. *Why help may not be offered*
7. *Discuss how the person should refuse help from someone that they do not feel they could trust – e.g. a person who sounds drunk”*

The summary of this theme, agreed by the panel was.

***“Target:***

*Develop effective use of the senses for O&M including:*

1. *Effective use of residual vision*
2. *Eccentric Viewing Strategies*
3. *Other sensory input for orientation*
4. *Draw attention to specific sensory input and how it can be utilised*
5. *Walking without mobility aids*

*Use of audition for safe road crossing including:*

1. *Focussing attention*
2. *Judgement*
3. *Identifying safe ‘windows’ in which to cross.*
4. *Evaluating traffic flow, speed and direction.*
5. *Client responsibility*

***Justification:***

*To address the clients fear of traffic and develop road crossing and auditory mobility*

*Training to use residual vision effectively in an O&M context to:*

- 1. enhance orientation*
- 2. build confidence when dealing with traffic*
- 3. identify people, objects, and landmarks*
- 4. Reduce dependency on residual (flawed) vision*

***Implementation:***

*Informal assessment of hearing*

*Check verbally first. Go to fairly quiet road and ask client to say when she first hears a car. Then discuss how to listen for safe crossing window, Practice several times without crossing*

*Create exercises both indoors and outdoors that introduce and develop sensory input. Focus on particular sense one at a time. Implement these into real life situations.*

*Carrying out a functional vision assessment & training in eccentric techniques and then implementing these by walking through different environments and locations. Initially under sighted guide, before placing in context with the training programme reinforcing at all times*

*Lessons X 3 (if 1 to 1.5 hours in duration)*

*Identify direction of traffic, speed, visual and hearing capabilities, complex sounds of two or more vehicles and background noise. Include a variety of weather conditions*

*Lessons X 4*

*One-to-one teaching over 2 or 3 sessions (combined with work on use of hearing) in the home area to provide a familiar environment and enable the client to concentrate on skills acquisition.*

*Train in controlled indoor area*

*Concentrate on one particular sense then move to combination(s)*

*Progress to walking indoors without mobility aid*

*Add mobility aid and train in conjunction*

*Move to outdoor arena “*

The following documentation of the target ‘working together’ was approved by the panel members as representative of their responses.

***“Target:***

*Working together*

***Justification:***

*Decide and agree on commencement of mobility training (or not) and which route to begin with. Enabling her to be a willing participant with almost a contractual agreement – or for the instructor to accept it is her choice not to go*

***Implementation:***

*Open and frank discussion. Clear person centred planning agreement/*

*Must be realistic achievable goals*

*Discuss programme – establish clear objectives and review periods to allow either party to exit”*

## APPENDIX 5.7 STUDY 2 – 3<sup>RD</sup> ROUND DELPHI QUESTIONNAIRE

In order to design a comprehensive O&M service for older visually impaired people the **core** service (available to all clients regardless of needs) and the **individual specific** elements (dependent on individual need) need to be identified.

Imagine you are designing a **comprehensive** O&M service for Older Visually impaired people and document below the attributes of each theme that you consider should be **core to an ideal service** and those that are **Individual specific**.

In formulating your answers you may wish to refer to the attached document (*Themes required for effective O&M intervention with older people*).

***Please remember when writing your comments to do so from a perspective of what you consider (in your experience) to be the ideal way of working with and meeting the O&M needs of older people with a vision impairment. This may be different from your training, current working practice or the organisational policies you have experienced.***

Example:

<i>Theme</i>	<i>Core Elements</i>	<i>Individual Specific Elements</i>
<b>Mobility Aids</b>	<i>(Everybody should be issued with a) Symbol cane and instruction in how to use it</i>	<i>(In addition) Training in the use of - Guide Cane - Long Cane - Walking (should be made available as required by the client)</i>

<b>Theme</b>	<b>Core Elements</b>	<b>Individual Specific Elements</b>
<b>O&amp;M Assessment</b>		
<b>Other Professionals</b>		
<b>Road Crossing</b>		
<b>Public Transport</b>		
<b>The Individual</b>		



<b>The Senses</b>		
<b>Orientation</b>		
<b>The Public</b>		
<b>Family</b>		
<b>Sighted Guide</b>		
<b>Mobility Aids</b>		

If you would like to include further themes not covered above please add them below.

<b>Theme</b>	<b>Core Elements</b>	<b>Individual Specific Elements</b>

If you have any comments on the themes, core/Individual specific elements or O&M Services please add them below:

<b>Additional Comments</b>

## **APPENDIX 5.8 STUDY 2 – SUMMARY OF PARTICIPANT RESPONSES**

### **O&M Assessment**

*The majority of Panel members suggested that an O&M assessment was essential and that it should be a core to an O&M service for older people with a vision impairment.*

*It was proposed that this process should be based on individual requirements and was vital in order to find out what an individual wanted to achieve and to plan a training programme. In addition it was expressed that this procedure should include an observation of the service user's current level of O&M.*

*Some also suggested that the assessment process should be ongoing with periodic reviews.*

*Those elements of an Assessment that were considered to be individually specific were:*

*Environmental assessment (if individual wants to go outside)*

*Ongoing reviews*

*Liaising with family/carers (if any)*

### **Road Crossing**

*The responses received suggested that as the majority of routes include road crossing this theme should be considered as a core element of an O&M service for older people and should include observation of travel, advice and instruction in crossing strategies.*

*It was also suggested that although core the level at which this element is provided is dependent individual ability and need, the difficulty of the crossing and the volume of traffic.*

*Panel members identified individual specific elements such as – sheltered accommodation and access to amenities that do not require road crossings as those in which this core service may not be required. More complex crossings such as. Pelicans, Puffins and dual carriageways and the ability of the individual to transfer skills from one setting to another were also identified as individual specific elements..*

### **Public Transport**

*Although individual needs dictate that this element of O&M training may not be required by all older people, it was suggested that as Bus travel is such a*

*commonly used mode of transport this should be a core element of an O&M service for older people.*

*Recognised as dependant on the location and need it was suggested that this type of travel should be encouraged for older people for whom car driving is not a possibility.*

*Individual specific elements were identified by Panel members as further public transport training on trains, trams, underground etc dependent on location and individual specific need.*

### **The Individual**

*All Panel members suggested that it is important for O&M for older people with a vision impairment to be 'individual focussed' in order to address need, identify and problem solve and to provide a comprehensive and holistic service.*

### **The Senses**

*The majority of Panel members suggested that training in the effective use of the remaining senses should be a core element of an O&M service for older people with a vision impairment. A particular emphasis for this service user group would be on recognising the impact of a dual sensory loss.*

*Panel members highlighted individuality and recommended that training in the use of residual vision/hearing/ touch should be tailored to the specific attributes of the individual.*

### **Orientation**

*This element was considered by the majority of Panel members to be an integral part of mobility and as a result should be a core element of an O&M service for older people with a vision impairment. It was highlighted that in reality many older people will have a good idea of the orientation in the area they live and where they need to get to, but this training would enable the traveller to know where they are at any given time.*

*With particular reference to this service user group it was highlighted that the older person with a vision impairment is likely to retain peripheral vision and as a result may require just a few sessions aimed at confidence building.*

*It was suggested that the individual specific elements of orientation need to take into account the needs and travel ambitions of the individual. Along with this Panel members suggested that other causes for loss of orientation such as Stroke or Alzheimer's need to be considered. It was also suggested that*

*Electronic aids (such as Trekker) should be considered for those with the ability to use it and the need to go to unfamiliar places.*

### **The Public**

*It was suggested by the majority of Panel members that everyone undertaking independent travel will interact with the public at some point, so training in approaches to dealing with this is essential. As a result this was considered to be a core element of an O&M service for older people with a vision impairment. This element was particular focussed on soliciting help and 'fending' off unwanted help.*

*The individual specific element of this theme identified individuality suggesting that the level of training required depended on the environment and travel needs of the individual and may include assisted public transport travel.*

### **Family**

*Working with family members was considered by the majority of Panel members to be core to an O&M service for older people with a vision impairment. But should only be undertaken with the consent of the service user. This element was focussed on raising awareness of sight loss especially in relation to the difficulties the individual may have with their sight impairment and may be extended to care staff in the absence of family members.*

*The individual specific element suggested by Panel members was recognition of unique circumstances requiring a case-by-case assessment.*

### **Sighted Guide**

*This was considered by the majority as a core service that should be provided to service users, family members and other professionals to facilitate safe and comfortable navigation of the environment when being guided.*

*This should include all elements of the guiding process and should be extended to cover how to teach others, the confidence to adapt skills as required and the assertiveness to influence interaction and not have to accept poor guiding.*

*Panel members suggested that the Individual specific elements of this element should include adaptation of sighted guide techniques to address specific needs of service user and Wheelchair guiding for those who require it.*

### **Mobility Aids**

*It was considered as core that the individual should be offered an appropriate mobility aid and training in its use. All older people with a vision impairment should be offered a symbol cane and instruction on how to use it (or more importantly how not to use it)*

*Individual specific elements of an ideal O&M service identified by Panel members were: the use of white walking sticks as a symbol cane - Electronic mobility aid training - Guide Cane and Long Cane issue and training.*

### **Other Professionals**

*Panel members suggested that contact with other professionals was not required for an effective O&M service for older people.*

*This was an individual specific element of a service that if required should be with relevant professionals and maintained throughout to ensure consistency of approach and the appropriate addressing of issues relating to individual circumstances.*

## APPENDIX 6

### APPENDIX 6.0 STUDY 3 – INVITATION TO PARTICIPATE

#### *Research Participants Needed.*

#### *Investigating Orientation and Mobility practice that meets the needs of visually impaired people.*

Dear Colleague

I am currently undertaking a research programme supervised by Dr Steve McCall of the University of Birmingham Visual Impairment Centre for Teaching and Research. The overarching aim of the study is to identify 'best' Orientation and Mobility practice in relation to *typical* adult clients. Achievement of this aim is intended to inform rehabilitation worker practice, Service Providers and Training Organisations by revealing essential factors of Orientation and Mobility practice required to meet the needs of visually impaired people.

I am inviting all qualified rehabilitation workers/Officers to participate in this research, during which they will have the opportunity to reflect upon their practice, share experiences and contribute to the development of a detailed knowledge base of effective 'real life' Orientation and Mobility intervention. It is intended that this research programme will propose a model of 'Good Practice' **this model will be made available 'free of charge' to all research participants.**

*Participants in this programme will be asked to:*

- *Complete a general information questionnaire*
- *Undertake a 45-60 minute telephone discussion of their opinions of Orientation and Mobility practice.*

*If you are a qualified rehabilitation worker/Officer and would like to participate in this project please contact me at [REDACTED]*

*Alternatively if you would like to discuss this research further I can be contacted directly on [REDACTED]*

*Thank you*

*Andrew Dodgson*

## APPENDIX 6.1 STUDY 3 – PARTICIPANT BRIEF

### *Participation Brief*

Thank you for your interest in participating in this research project. This is part of an ongoing research programme undertaken by Andrew Dodgson and supervised by Dr Steve McCall of the University of Birmingham Visual Impairment Centre for Teaching and Research. The goal of the programme is to produce a high quality evidence-base of rehabilitation workers practice for rehabilitation workers and Rehabilitation Studies training providers.

### **The Aim of the study**

The Orientation and Mobility (O&M) techniques delivered during rehabilitation worker (RW) training are predominantly based upon those documented in the publications, *Orientation and Mobility Techniques, A Guide for the Practitioner* (Hill and Ponder 1976), the *Foundations of Orientation and Mobility (Second Edition)* (Blasch et al 1997) and *The Art and Science of Teaching Orientation and Mobility to Persons with Visual Impairments* (Jacobson 1993). There is currently very little evidence of the suitability of these techniques for the RW's client group. The overarching aim of the study is to identify 'best' working practice in relation to *typical* adult clients. Achievement of this aim is intended to inform RW practice, service providers and training organisations by revealing essential factors of O&M practice required to meet the needs of visually impaired people.

### **The benefits of contribution**

During this project participants will have the opportunity to reflect upon their practice, share their experiences and contribute to the development of a detailed knowledge base of effective 'real life' O&M intervention

It is intended that this research programme will produce documented evidence of the type of O&M training RW's are delivering in practice and propose a model of 'Good Practice'. **These will be made available 'free of charge' to all research participants.**

### **Data Gathering**

This programme will gather data via questionnaire and recorded telephone interviews.

### **Commitment**

Participation in this research programme requires:

1. Completion of a General Information Questionnaire (via e-mail)
2. Contribution to a 45 - 60 minute recorded telephone interview

3. Further contact may be required for detail clarification or additional information

### **Confidentiality**

All information received during this project will be stored electronically for the period of the research with no indication of its source, name or details of where or from whom the information was received. All data received will be treated as **Confidential** and used solely for this research project and the publication of results. No individuals will be identifiable from references made in the final report or subsequent publications. If during this project an illegal activity is reported the researcher is ethically obliged to report this disclosure to the appropriate authority. If this situation occurs participants will be directly informed of the researcher's intentions.

### **The Right to Withdraw**

If at any time during the research process you would like to end your participation, please indicate this to the researcher. You may do so without prejudice.

### **Managing Participation and Work**

The research questionnaires are designed to be undertaken within the workplace. I can send details of the research programme to your line manager with a request for them to facilitate your contribution by affording you the time and space in the workplace to formulate and document your responses. Please indicate to the researcher if this is required.

If you would like to discuss any aspect of this research programme please contact Andrew Dodgson on : [REDACTED] or at [REDACTED]



## APPENDIX 6.2 STUDY 3 – GENERAL INFORMATION QUESTIONNAIRE

<b>Name:</b>					
<b>Gender:</b>	Female	Male	<b>Age:</b>		
<b>Employer:</b>					
<b>Job Title:</b>					
<b>Description of the environment in which your clients live:</b>					
<b>Which RW Qualification do you hold?</b>	RW Cert Dip HE BTEC Prof Dip	Mobility Officer Cert Foundation Degree			
<b>Where did you do your training?</b>					
<b>In what year did you qualify?</b>					
<b>Have you undertaken any Post Qualification training:</b>				<b>Yes</b>	<b>No</b>
<b>If yes please list.</b>					
<b>E-mail address:</b>					
<b>Telephone:</b>					

**Which age group best defines your major client group?**

0-4                  5-17                  18-49                  50-64                  65-74                  75+

**What term do you use to describe this client group?**

Children                  Teenagers                  Adults                  Older People                  Elderly People

**Which of the activities below do you commonly undertake with this client group?**

Assessment                  O&M Assessment                  Work with family members  
 Training in dealing with members of the public                  Orientation Training  
 Sensory Orientation Training                  Public Transport Training  
 Sighted Guide Training                  Cane Training – Symbol - Guide – Long Cane  
 Road Crossing Techniques                  Electronic mobility aid training  
 Training Reviews

**Are you willing to take part in a telephone interview based on the above information?**

Yes No

## APPENDIX 6.3 STUDY 3 – FURTHER INFORMATION QUESTIONNAIRE

### FURTHER INFORMATION ABOUT YOUR WORKING PRACTICE

Name: | |

<b>BASED ON YOUR EXPERIENCE OF DELIVERING REHABILITATION SERVICES TO OLDER VISUALLY IMPAIRED PEOPLE PLEASE ANSWER THE BELOW AS ACCURATELY AS POSSIBLE.</b>				
Including yourself, how many RW's work in your team?				
Do you receive supervision from a rehab qualified member of staff?	<input type="checkbox"/> Yes <input type="checkbox"/> No			
What is the size of your current caseload?				
How many clients are you normally able to see in a week?				
What percentage of your time do you spend doing paperwork?				
What percentage of your clients are aged?	Under 50	50-64	65-74	75+
What percentage of your clients over 50 have a visual impairment that is?	Early onset (prior to 50)		Late onset (over 50)	
For each age group - what percentage have an additional disability?	Under 50	50-64	65-74	75+
For each age group - how many O&M training sessions on average does a client receive in total?	Under 50	50-64	65-74	75+

For each age group - how long is your average individual O&M session?	Under 50	50-64	65-74	75+
	[ ]	[ ]	[ ]	[ ]
How long is your average O&M session with a younger person?	[ ]			
For each age group - what is the main motivator to undertake Orientation and Mobility training?	Under 50	[ ]		
	50-64	[ ]		
	65-74	[ ]		
	75+	[ ]		
What percentage of your clients who are 75+	Live Alone	With Relatives	Care/nursing home	
	[ ]	[ ]	[ ]	
Do you consult with other professionals in relation to your O&M work with clients?	<input type="checkbox"/> Yes <input type="checkbox"/> No			
For each age group - which professional are you most likely to consult with in relation to your O&M training sessions?	Under 50	[ ]		
	50-64	[ ]		
	65-74	[ ]		
	75+	[ ]		

My practice when working with older people is determined mostly by?	<input type="checkbox"/> Departmental Directives <input type="checkbox"/> Personal, Professional Judgement <input type="checkbox"/> Other
---	---

	If Other please explain [            ]
Do you have practice guidelines specifically for your work with older people?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If yes please summarise these guidelines in a few sentences [            ]	
Please add additional comments about your practice with older clients [            ]	

## APPENDIX 6.4 STUDY 3 – INTERVIEW SCHEDULE

### Orientation and Mobility intervention for older people

#### Telephone Interview Schedule

<b>Name:</b>	<b>Date:</b>	<b>Length of Interview:</b>
As the role of the RW is so wide ranging I would like to ask you a few general questions about your practice with older people followed by some specifically about O&M with older people.		
<b>General Questions about your work with older people</b>		
<b>1.</b>	<b>Have you found there to be any major differences between the way you work with older people and younger people?</b>	
<i>Prompt: Can you give me a specific example?</i>		
<b>2.</b>	<b>In your opinion which of the following present the most risk to independence for people over the age of 65?</b>	
Daily Living Skills - Information and Advice - Communication skills - O&M - Benefits & finance - Housing		
<b>3.</b>	<b>What is the size of your current case load?</b>	
<b>4.</b>	<b>What percentage of your clients are over 65?</b>	
<b>5.</b>	<b>Of those clients over 65 what percentage are over 80?</b>	
<b>6.</b>	<b>Thinking about your clients who are under the age of 65:</b>	
What have you found to be their main motivator to undertake O&M training?		
How many O&M training sessions would you deliver?		
How long is an average O&M training session?		
<b>7.</b>	<b>Thinking about your clients between 65 and 79 years of age:</b>	
What have you found to be their main motivator to undertake O&M training?		
How many O&M training sessions would you deliver?		
How long is an average O&M training session?		

<b>8.</b>	<b>Thinking about your clients who are over 80 years of age</b>
<p>What have you found to be their main motivator to undertake O&amp;M training?</p> <p>How many O&amp;M training sessions would you deliver?</p> <p>How long is an average O&amp;M training session?</p>	
<b>9.</b>	<b>Assessment – O&amp;M Assessment</b> Is your process of assessing an older person the same as your process of assessing younger adults?
<p><b>If No</b> – What do you do that is different when assessing an older person compared to when you are assessing a younger adult?</p> <p><b>If Yes</b> – What are the main features of an effective assessment process?</p> <p><i>Prompt: That sounds interesting, can you give me a specific example?</i></p>	
<b>10.</b>	<b>Work with Other Family Members</b> Do you include other family members in your O&M training with older people?
<p><b>If No</b> – Why do you not include family members in O&amp;M training with older people?</p> <p><b>If Yes</b> - In what capacity do you include family members in O&amp;M training with older people?</p> <p>What problems do you experience when including family members in your O&amp;M training?</p> <p><i>Prompt: That sounds interesting, can you give me a specific example?</i></p>	
<b>10a.</b>	<b>Do you include other family members in your O&amp;M training with younger adults?</b>
<p><b>If No</b> – Why you do not include family members in O&amp;M training with younger adults?</p> <p><b>If Yes</b> - In what capacity do you include family members in O&amp;M training with younger adults?</p> <p><i>Prompt: That sounds interesting, can you give me a specific example?</i></p>	
<b>11.</b>	<b>Orientation Training</b> Do you deliver orientation training to older people?
<p><b>If No</b> – Why not?</p> <p><b>If Yes</b> – Is there a difference in the orientation techniques you deliver to older people compared to those you deliver to younger adults?</p> <p><b>If Yes</b> – What are the differences in the techniques?</p> <p><b>If No</b> – What are the orientation techniques you deliver to your clients?</p> <p><i>Prompt: That sounds interesting, can you give me a specific example?</i></p>	

<b>12.</b>	<b>Sensory Development</b> Do you deliver sensory development training to older people?
<p><b>If No</b> – Why not?</p> <p><b>If Yes</b> – What sensory development training do you deliver to older people?</p> <p>Is there a difference in the sensory development exercises you deliver to older people compared to those you deliver to younger adults?</p> <p><b>If Yes</b> – What are the differences?</p> <p><b>If No</b> – What are the sensory development training exercises you undertake with your clients?</p> <p><i>Prompt: That sounds interesting, can you give me a specific example?</i></p>	
<b>13.</b>	<b>Sighted Guide Training</b> Do you provide sighted guide training to older people?
<p><b>If No</b> – Why not?</p> <p><b>If Yes</b> – Is there a difference in the Sighted Guide Techniques you deliver to older people compared to those you deliver to younger adults?</p> <p><b>If Yes</b> – What are the differences?</p> <p><b>If No</b> – What are the Sighted Guide techniques you deliver to your clients?</p> <p><i>Prompt: That sounds interesting, can you give me a specific example?</i></p>	
<b>14.</b>	<b>Cane Training (Symbol, Guide, Long)</b> Which cane, in your experience have you found to be the most beneficial for use by older people?
<p>Symbol – what is it about the symbol cane that suits older people?</p> <p>Guide Cane – what is it about the guide cane that suits older people?</p> <p>Long Cane - what is it about the long cane that suits older people?</p> <p>No Cane – Why do older people not require the use of a cane?</p> <p><b>Do you deliver long cane training to older people?</b></p> <p><b>If No</b> – Why do you not deliver Long Cane training to older people?</p> <p><b>If Yes</b> – Do you make adaptations to Long Cane techniques when working with older people?</p> <p><b>If Yes</b> - What are the adaptations you make?</p> <p><b>If No</b> – What are the Long Cane techniques you deliver to your clients?</p> <p><i>Prompt: That sounds interesting, can you give me a specific example?</i></p>	

<b>15.</b>	<b>Road Crossing Techniques</b> Do you provide Road Crossing training to older people?
<p><b>If No</b> – Why not?</p> <p><b>If Yes</b> – Is there a difference in the road crossing techniques you deliver to older people compared to those you deliver to younger adults?</p> <p><b>If Yes</b> – What are the differences?</p> <p><b>If No</b> – What are the road crossing techniques you deliver to your clients?</p>	
<i>Prompt: That sounds interesting, can you give me a specific example?</i>	
<b>16.</b>	<b>Public Transport Training</b> Do you provide Public Transport Training to older people?
<p><b>If No</b> – Why not?</p> <p><b>If Yes</b> – Is there a difference in the public transport training you deliver to older people compared to those you deliver to younger adults?</p> <p><b>If Yes</b> – What are the differences?</p> <p><b>If No</b> – What public transport training do you deliver to your clients?</p>	
<i>Prompt: That sounds interesting, can you give me a specific example?</i>	
<b>17.</b>	<b>Training in dealing with members of the public</b> Do you provide training in dealing with members of the public to older people?
<p><b>If No</b> – Why not?</p> <p><b>If Yes</b> – Is there a difference in the ‘dealing with members of the public’ training you deliver to older people compared to those you deliver to younger adults?</p> <p><b>If Yes</b> – What are the differences?</p> <p><b>If No</b> – What ‘dealing with members of the public’ training do you deliver to your clients?</p>	
<i>Prompt: That sounds interesting, can you give me a specific example?</i>	
<b>18.</b>	<b>Electronic Mobility Aids</b> Do you provide training in the use of Electronic Mobility Aids to older people?
<p><b>If No</b> – Why not?</p> <p><b>If Yes</b> – What electronic mobility aids do you use with older people?</p> <p>Is there a difference in the electronic mobility aids you use with older people compared to those you deliver to younger adults?</p> <p><b>If Yes</b> – What are the differences?</p> <p><b>If No</b> – What electronic mobility aids do you use with your clients?</p>	



<b>19.</b>	<b>Training Reviews</b> Do you review your O&M training programmes with older people?
<p><b>If No</b> – Why not?</p> <p><b>If Yes</b> – Is there a difference in the training reviews you undertake with older people compared to those you undertake with younger adults?</p> <p><b>If Yes</b> – What are the differences?</p> <p><b>If No</b> – What does a normal Orientation and Mobility training review consist of?</p> <p><i>Prompt: That sounds interesting, can you give me a specific example?</i></p>	
<b>20.</b>	<b>In your experience what are the barriers to effective working with Older People?</b>
<p><i>Prompt: That sounds interesting, can you give me a specific example?</i></p>	