

University of Greenwich

Faculty of Education and Health

**Evaluating D/deaf Learners' Experiences of
Notetaking Support in Higher Education Utilising
a Transformative Framework**

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Doctorate in Education

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Doctorate in Education of the University of Greenwich

DECLARATION

“I certify that this work has not been accepted in substance for any degree, and is not concurrently being submitted for any degree other than that of Doctorate in Education (Ed.D) being studied at the University of Greenwich. I also declare that this work is the result of my own investigations except where otherwise identified by references and that I have not plagiarised another’s work”.

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ABSTRACT

The aim of this study was to ascertain the experiences of D/deaf university learners who had been supported by a notetaker at some point during their studies. Whilst the number of D/deaf learners attending university is steadily increasing, notetaking support continues to be an under-researched area. The two primary research questions examined the current state of notetaking provision in higher education and what, from the perspectives of the co-researchers (D/deaf learners), comprised a successful and positive experience of being supported by notetakers.

A transformative framework (Mertens 2010) was adopted to guide the data collection, foregrounding the voices of the learner and influencing the study as it was acknowledged that the co-researchers were the experts on the subject. Two sequential methods were utilised, firstly an electronic forum (n=7) which then contributed to the second phase, an electronic questionnaire (n=30). The findings showed that whilst the majority of the co-researchers' experiences were positive, there was evidence of poor and variable practice which confirmed the need for common guidelines. The anonymous forum and questionnaire enabled the co-researchers to discuss and/or contribute their experiences in a non-threatening, and non-judgemental environment as suggested by Balch and Mertens:

Focus groups for deaf and hard of hearing can be highly productive on even the most sensitive issues (1999:265).

The intended outcome of the study was the development of the Notetaking Optimising Thorley Effectiveness Information and Guidelines – *NOTE IaG* which provides information for D/deaf learners, their teaching staff, notetakers and their non-D/deaf peers. An unexpected yet positive outcome of the study was the creation of a *NOTE* template which encourages D/deaf learners to add to, and personalise their notes provided by their notetakers.

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GLOSSARY

*adept	Association of Deaf Education Professionals and Trainees
ADA	Americans with Disabilities Act
ANP	Association of Notetaking Professionals
AOHL	Action on Hearing Loss
ASL	American Sign Language
BA	Bachelor of Arts
BBC	British Broadcasting Corporation
BCODP	British Council of Disabled People
BDA	British Deaf Association
B.Ed.	Bachelor in Education
BRITE	Beattie Resources for Inclusiveness in Technology and Education
BSL	British Sign Language
CACDP	The Council for the Advancement of Communication with Deaf People
CAN	Computer-aided Notetaking
CART	Computer Aided Realtime Translation
CDRC	Child Development and Research Center

CHESS	Consortium of Higher Education Support Services for Deaf Students
CP	Communication Professional
CPD	Continued Professional Development
CSIE	Centre of Studies in Inclusive Education
CSL	Chinese Sign Language
CSV	Community Service Volunteers
CSW	Communication Support Worker
DDA	Disability Discrimination Act
Deaf	People who prefer to communicate via sign language; are often part of the wider Deaf community; and who consider themselves a linguistic minority
deaf	People who are hard-of-hearing; who often have hearing aids and/or lipread; and who have spoken language as their preferred mode of communication
DED	Disability Equality Duty
DES	Deaf Education Studies
DSA	Disabled Students' Allowances
DSE	Disability Studies in Education

DRC	Disability Rights Commission
Ed.D	Doctorate in Education
EHRC	Equality and Human Rights Commission
ENT	Electronic Notetaker
HE	Higher Education
HEI	Higher Education Institute
HEP	Higher Education Provider
IaG	Information and Guidance
ICT	Information, Communication and Technology
IDEA	Individuals with Disabilities Education Act
LSP	Language Support Professional/Provider
MA	Masters of Arts
MPhil	Masters in Philosophy
MSc	Masters in Science
MT	Melanie Thorley
NADP	National Association of Disability Practitioners
NDCS	National Deaf Childrens' Society
NMH	Non-Medical Helper

N1, N2, etc.	Notetaker 1, Notetaker 2, etc.
NMIT	Northern Melbourne Institute of TAFE
NOTE	Notetaking Optimising Thorley Effectiveness
NSL	Norwegian Sign Language
OCN	Open College Network
OECD	Organisation for Economic Co-operation and Development
P#F	Page number Forum
P#Q	Page number Questionnaire
PCR	Primary Co-researcher
PCR1, PCR2, etc.	Primary Co-researcher One, Primary Co-researcher Two, etc.
PCR1:#F	Reference for direct quote from forum
PGCE	Post Graduate Certificate in Education
PhD	Doctorate in Philosophy
QTS	Qualified Teaching Status
RAD	Royal Association for Deaf people
RDC	Research Degrees Committee

RIT	Rochester Institute of Technology
RNID	Royal National Institute for Deaf people
RQ1	Research Question One
RQ2	Research Question Two
RQ2b	Research Question Two b
SB	Student initials of contributor who wished to remain anonymous
SCR	Secondary Co-researcher
SCR1, SCR2, etc.	Secondary Co-researcher One, Secondary Co-researcher Two, etc.
SCR#Q	Reference for direct quote from questionnaire
SDP	Supporting Deaf People conference
SEE	Sign Exact English
SENDA	Special Educational Needs and Disability Act
SFE	Student Finance England
SLI	Sign Language Interpreter
SSE	Sign Supported English
STTR	Speech-to-text Reporter

TAFE	Technical and Further Education
TC	Total Communication
ToD	Teacher of the Deaf
UCAS	University and College Admission System
UCLan	University of Central Lancashire
UNIQoLL	University Quality of Life and Learning
UREC	University Research Ethics Committee
USB	Universal Serial Bus
(www.name:date)	Denotes an electronic reference

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CHAPTER ONE - INTRODUCTION

Students learn from the notes...not the lecture itself (Mole and Peacock 2002).

Notetakers, or rather scribes, have been in evidence throughout history, yet many people believe scribes belong to our (illiterate) past ignoring that many people in their day-to-day lives write down information on behalf of someone else, for example, receptionists and court stenographers. This study is pertinent for D/deaf university learners; notetakers who are supporting Deaf and hard of hearing university learners; teaching staff who have a notetaker and a D/deaf learner in their class; and for non-D/deaf learners who have a D/deaf learner and a notetaker in their midst. Information from the now defunct Disability Rights Commission (DRC) (2006) stated 30% of D/deaf adults in the UK live in poverty, twice the number of their hearing peers. It is also estimated that D/deaf adults are seven times more likely to be unemployed than their non-D/deaf counterparts and many D/deaf people are susceptible to mental health difficulties (www.nhs:281013). A university education may benefit a number of D/deaf adults who do not want to be trapped in unemployment and/or poverty.

The numbers of D/deaf learners attending university has increased twofold from 1994/5 - 2012/13 (HESA 2014). It is likely, therefore, that a number of learners in this cohort may require the support of a notetaker at some stage of their tertiary education. Quite often, the notes taken by a notetaker during a teaching session are the only permanent record of

the information given, more so if the learner is Deaf and concentrating on watching a sign language interpreter or communication support worker (CSW); or hard of hearing (deaf) who is concentrating on following a lipspeaker. Lang (2002) has described this situation as 'attending to multiple visual tasks' (p.272). Consequently, a notetaker may alleviate this difficult situation (Thorley 2007b), enabling the D/deaf learner to concentrate on the delivery content.

A transformative framework (Mertens 2012; 2010; 2005) was adopted throughout the study as the experiences of the learners were the central purpose of the research. The framework was adopted to guide the data collection, rather than the study itself being depicted as transformational. It is acknowledged that the outcome has the potential to be transformational should D/deaf learners utilise the resulting guidelines to minimise negative notetaking practices. Additionally, a phenomenological underpinning was selected as the research paradigm itself as the experiences of the D/deaf learners was fundamental to the study. Phenomenology can be applied to sociology, education and disability/Deaf studies, all of which are fundamental to this research. A transformative study will enable a scrutiny and comparison of existing practices which it is anticipated will lead to a greater knowledge of what constitutes good practice which can then be replicated for the future.

I have over seventeen years experience as a qualified notetaker in higher education, I do not have the experience of being supported by a

notetaker and therefore do not regard myself as an expert on the issue. I have adopted the role of a researcher who is a reflective practitioner/friendly ally who can relate to the experiences of the co-researchers rather than as an expert who passes a judgement on the participants. I also needed to acknowledge any personal bias or emotion-laden values. As a researcher-practitioner, I need to acknowledge my subjective views during the study, particularly because I am inviting criticism of a career in which I am still involved and passionate about.

1.1 Rationale and original contribution

Culturally competent researchers endeavour to build rapport despite differences, gain the trust of community members, and reflect on their own biases (Mertens 2012:806).

The numbers of D/deaf (the nomenclature D\deaf is explained and clarified in the review of literature section) learners attending university in the UK pleasingly continues to rise. The Higher Education Statistics Agency (HESA) data from 1994/5 stated that 1,144 D/deaf learners were first year undergraduates compared to 2,085 in the 2012/3 cohort. A number of D/deaf students will require notetaking support at some stage of their tertiary learning to access the information being taught. The foci of this evaluative study are to assess the experiences of the D/deaf co-researchers in order to maximise good practice and minimise the negative experiences of the D/deaf learners we support. My intention is to provide an insight rather than an actual challenge to current practices, in anticipation of providing an impetus for change where needed. Whilst

there is little empirical evidence that shows the numbers of D/deaf learners that receive inadequate or irrelevant notes, anecdotal and informal evidence suggests there are many D/deaf learners who are not receiving the support they are entitled to. Evaluating the experiences of D/deaf learners appears to be the most logical method of analysing the current situation and providing information and guidelines which will hopefully improve the notetaking experiences of D/deaf learner whose needs are not being met.

Professional educational notetakers have only been in evidence in UK universities from the early 1990s. Possibly as a result of the newness of qualified, educational notetakers, there is a dearth of information and/or empirical research regarding this cohort of communication professionals (previously regarded as language support professionals or language support providers – LSPs). Importantly, neither has there been a comprehensive stand-alone study regarding the D/deaf learners we support. A number of studies have incorporated notetakers and learners, especially in the fields of D/deaf Studies and Disability Studies which I will be utilising throughout this study.

As this study is part of a Doctorate in Education, it lies between 'the crossroads of theory and practice' (Butin 2010:5) rather than extending theoretical speculation (Ladd 2003). Consequently, it is my intention to provide:

An in-depth and rigorous examination of a particular issue that provides new knowledge/or perspectives and, as such, contributes to ongoing scholarship and discussion around that issue (Butin 2010:10).

As this subject is so specialised and a relatively new phenomenon, a number of disciplines were examined to provide adequate background information to ensure this study is both comprehensive and relevant. In addition to the different disciplines explored, the practices of communication professionals, such as sign language interpreters, communication support workers (CSWs), and learning support assistants/teaching assistants were examined. Due to the nature of the study, I have also drawn information from anecdotal evidence, grey literature and my own personal experiences and previous research. Prior research includes a study which involved questioning notetakers themselves, especially in the context of their professionalism. Consequently, this thesis could be viewed as an educational/social science hybrid rather than a purely educational or social science study.

Whilst Deaf Education Studies (DES) and Disability Studies in Education (DSE) are relevant to this study, they are often in disagreement, especially in regard to education. In addition to these two major disciplines, the issues of identity, culture and community; communication and technology; compulsory education; higher education; and notetaking support in higher education – the actual foci of this study are examined. These themes provide context and key insights as the literature pertaining to D/deaf university learners working with notetakers is so

limited. Throughout the written thesis, a number of international attitudes and practices, to hopefully enhance the understanding of how D/deaf people have different experiences outside of the UK is acknowledged.

The historical elements are an important component to enable the reader to understand the contemporary context. As education is a fluid process rather than a static entity, the future, both in terms of the positive outcomes and the negative possibilities are acknowledged.

The resulting thesis will endeavour to contribute to an area of knowledge in which there is little evidence and will hopefully assist future D/deaf learners to improve access to their university learning environments. It is also anticipated that notetakers, teaching staff and non-D/deaf learners will utilise the resulting information and guidance to enable D/deaf learners to maximise their learning experiences. Throughout the process, I have adopted the stance of a reflective practitioner (Schön 1983) and a supportive, reflective activist (Mertens 2009) which has enabled me to reflect on both theory and practice, and ultimately improve my disciplinary field. In addition, throughout the first phase of data collection (forum) I portrayed myself as a friendly ally (Napier, McKee and Goswell 2010) to establish and maintain rapport with the primary co-researchers.

In recognition of widening participation and the increasing number of disabled (including dyslexic) undergraduates entering higher education, it is acknowledged that there will be a need to increase the number of notetakers to support students' learning. Preliminary research has

identified that current provision is inadequate. This has led to the two research questions which frame this study:

RQ1: From the perspectives of the co-researchers (the students themselves), what makes a successful and positive experience of being supported by notetakers?

RQ2: How can notetaking provision in higher education be developed to meet student demand?

RQ2b: Will notetaking support for D/deaf learners be needed in the future?

CHAPTER TWO - REVIEW OF LITERATURE

Doing a literature review is so that you can begin to understand the multiple ways to think about your topic – and how different perspectives have different assumptions and implications (Butin 2010:68).

2. The search strategy

In addition to existing literature and documentation, the following databases were accessed to provide a broad survey of research: the Australian Education Index, British Education Index, Education Resource Information Centre, Google Scholar, OECD iLibrary, Sage Journals Online, Sage Journals Online, Swetwise, and Taylor and Francis Online. The databases were accessed every eight to ten months during the period 2008 until December 2013. The search words were as follows: *notetaking, note-taking, note taking, notetaking support, note-taking support, note taking support, notetakers, note-takers, note takers, D/deaf learners, D/deaf students, Deaf learners, Deaf students, deaf learners, deaf students, language support professionals, language support providers, communication support workers (CSWs), sign language interpreters (SLIs), non-medical helpers (NMHs) and classroom dynamics*. In addition, the *Journal of Deaf Studies and Deaf Education* was accessed every three months throughout the study until December 2013.

To complement the database searches, email alerts from publishers Sage Contents and WileyOnLine Library were received throughout the same time period using the same key words. The database searches were not restricted to the United Kingdom as the intention was to ensure an international context to provide a comparison for the current state of

notetaking in higher education in the UK and to examine the degree to which notetaking provision met student demand. However, the journal articles accessed were all written in English regardless of the country of origin. The research articles were overwhelmingly of a qualitative nature, including autobiographical information, which was pertinent to the overall study.

In addition to the research journals, a number of publications pertinent to D/deaf education were also sourced, including but not solely, *Open Your Eyes: Deaf Studies Talking* (2008), *Deaf Students in Higher Education: Current Research and Practice* (2007) and *Deaf Studies, Language and Education* (2003).

Due to there being a dearth of information on notetaking support for D/deaf learners in university contexts, the grey literature (Mertens 2009) was incorporated to increase the knowledge on this niche subject and to complement the traditional research journal articles. The grey literature included conference reports and presentations, blogs, publications targeted at D/deaf readers, web pages and newspaper articles.

A total of 204 research papers (excluding the grey literature) were analysed to identify five interrelated themes relating to notetaking support for D/deaf university learners, which have been used to structure the review of literature which has been divided into two sections:

- i. Context comprising:

- Identity, Culture and Community (Armstrong and Wilcox 2007; Ladd 2005; Dixon, Smith and Jenks 2004; Gregory and Knight 1998).
- Communication and Technology (NDCS 2014; Gallaudet 2013; Zhang, Landmark and Reber 2008; Woll and Ladd 2007).
- Compulsory Education and Post-compulsory Education (British Deaf Association 2014; Barnes, Mercer and Shakespeare 1999; Mowe, Barnes and Nicholson 2008; Groce 1985).

ii. Notetaking:

- Notetaking in Higher Education (Mertens 2012, 2009, 2005; McRae and Turner 2007; Titsworth 2004; Mace 2002).

2.1 Definition of Terms: Deaf or deaf?

The nomenclature of D/deaf can be confusing for people who are unfamiliar with the term. It is a convention which is often used to describe people who are Deaf and people who are deaf *or* hard of hearing. Historically, the way Deaf was written was immaterial for D/deaf people as the majority of Deaf people had no reason to read or write – theirs was a truly visually language, not a translation of English. People working in higher education have to realise that a D/deaf learner is not ‘simply a hearing child who cannot hear’ (Ladd 2005:138).

Deaf, with a capital 'D' generally denotes a person who was born with little or no hearing, or for various reasons may have lost their hearing as a young child. Deaf people tend to use a signed language such as British Sign Language (BSL) or Sign Supported English (SSE). Deaf with a capital 'D' is also depicted as 'strong Deaf' as a matter of pride (Ladd 2003). Signers often regard themselves as part of Deaf culture with a distinct identity, that of a linguistic minority. Medical model terminology would deem this group of people as 'congenitally deaf' or 'pre-lingually deaf' emerging from the medical model ethos of treatment, cure, prevention, and in an extreme example, abnormality (www.cdrc:281013).

Gregory and Knight (1998) suggest self-definition of being Deaf is a move away from the traditional medical pathology. Between 40,000 and 70,000 individuals in the UK regard themselves as Deaf – a distinct community separated from mainstream society via culture and linguistics (attitudinal Deafness) (Corker 1998). The recent work of Ladd (2005; 2003) has further developed the theory of Deafhood to encompass a range of interrelated concepts relevant to D/deaf culture and identity, defining Deaf people as 'uniquely visuo-gesturo-tactile biological entities' (Montgomery 2008:242). In addition, the Royal Association for the Deaf (RAD) suggest 70,000 Deaf people in the UK use BSL as their preferred method of communication. However, the 2011 Census suggested there were 15,000 BSL users and 7,000 people using alternative sign language in England and Wales (www.royaldeaf:281013). Importantly,

educationalists need to acknowledge that the D/deaf learners they come across in their classes and lectures are not always native English speakers.

People who are deaf (with a small d) tend to have some level of hearing and who regard English as their native or first language. They may utilise hearing aids and/or communicate via lipreading. This demographic of learners may benefit from loop systems being installed in teaching environments (www.hearingloop:281013). Ladd (2005) describes lower case deaf as their deafness is an 'audiological experience' (p.17). Hearing loss may be age related or the result of an illness or head trauma.

Regardless of the level of hearing a learner has, the polite and professional stance is to ask the individual learner how the notetaker can support them in their learning to ensure they have the opportunity to reach their potential at university; asking learners whether they regard themselves as Deaf or deaf is neither acceptable nor appropriate. Questions such as '*is there anything I can do to ensure you are not excluded from teaching sessions?*' is far more appropriate and may result in the D/deaf learner becoming an active learner in teaching sessions rather than a passive observer (Mace 2002).

2.2 Identity, Culture and Community

The deaf community is a close-knit, family-like community (Rosen 2008:132).

The key elements of identity, culture and community are fundamental to understanding the two predominant models of Deafness; the previous suppression of communicating via sign language; the historical importance of Deaf Clubs; and the threats to Deaf identity, culture and community due to technology. It is imperative that non-D/deaf students and teaching staff are aware of the importance and relevance of D/deaf culture, identity and community to enable D/deaf learners to become involved in the collegiate nature of learning in a hearing, tertiary environment.

The differences between Deaf and deaf are intrinsic, especially for those people who take pride in being Deaf and part of the wider Deaf community. They often regard deaf or hard of hearing individuals in a similar vein as they do hearing people. Consequently, identity, culture and community can be fundamental aspects for D/deaf learners. Whilst ascribing labels to distinct groups, thousands of Deaf adults embrace the term Deaf as it describes where they see themselves situated within society. As educationalists we need to acknowledge the differences between Deaf learners and deaf learners to ensure the correct mechanisms are in place to ensure all learners are supported appropriately, in addition to the perceived and real threats to D/deaf identity, culture and community, which may or may not impact on their education.

2.2.1 Identity

Modern interest in D/deaf identity originated with Pinter and Paterson in 1916 (Gregory and Knight 1998). As a consequence of their work, two key models of deafness evolved, namely, the clinical/medical model which is outdated but unfortunately still in evidence, for example, the Disabled Students Allowances (DSA) and more recently, the cultural/linguistic model which is favoured by the majority of people who define themselves as Deaf. Ridgeway (1998) suggests:

Identity influences belonging and choices. To define yourself as Deaf via the cultural and linguistic model challenges the medical/individual deficit model of deafness (p.132).

Deaf identity is influenced by three key factors including: marginalisation by the majority of a hearing, mainstream society; the ability to relate to others who face the prejudice and/or discrimination; and a signed, shared language. These factors need to be acknowledged by educationalists to ensure they do not perpetuate the marginalisation of D/deaf learners (Dixon, Smith and Jenks 2004) and to understand the importance of why a D/deaf learner may have the support of a notetaker, and possibly interpreters or communication support workers (CSWs). In addition to providing educational support from specialised staff, universities could employ D/deaf adults and/or alumni who in turn become positive role models (Saltnes 2008).

Although people within the Deaf community come from many backgrounds, many of the members share a sense of culture, history and

experience (Bauman 2008; Ladd 2005). Woodward (2000) also suggests our identities are not only shaped by social structures, we are also capable of forming our own identities via appellation. Identity construction is a useful tool and a number of theorists have built on the Goffman (1963) concept of stigma. French (1997) has also suggested some people with impairments, such as hearing, view the world differently from non-impaired people and/or people with different impairments; consequently, their view of the world may impact on the way they learn and think. Basilier (1964 cited in Ridgeway 1998) coined the phrase *surdophrenia* (deaf mind) to 'diagnose deaf people with conduct and emotional disorders' (p.137). This term is rarely used in the UK and Europe as it is viewed as derogatory, in much the same way as other offensive terminology such as 'deaf and dumb' (www.nad:281013) and 'mutt and jeff' (www.oxfordreference:281013).

Simon (2000) has suggested that D/deaf children are more likely to be with 'like-minded individuals' if attending a specialist D/deaf school a point echoed by Mason (1991) who believes that D/deaf children benefit from contact with D/deaf adults enabling the child to develop a secure sense of identity as a D/deaf person. Rieffe, Meerum, Terwogt and Smit (2003) proposed that a number of D/deaf children may not develop an advanced theory of mind, possibly due to limited communication in a hearing world. Consequently, Deaf culture often discriminates against other disabled people; those who are hard of hearing and hearing people

(Corker 1998). This could be addressed by providing D/deaf individuals with hearing awareness training to explain how different people view the world and their environments.

2.2.2 Culture and community

D/deaf culture and community cannot be claimed to be a given. In the Middle Ages, any disability or impairment was considered a punishment from God and often resulted in D/deaf individuals being condemned by society as outsiders and/or used as court jesters, and other forms of entertainment. The Enlightenment saw a change in attitudes and 'deaf communities and their sign languages were more positively regarded' (Ladd 2005:102). The usage of Deaf as a cultural group was coined in 1982 by James Woodward as an acceptable term (Taylor and Bishop 1991). Deaf culture is identified by a distinct language (BSL) since social identification is not apparent.

The traditional model of deafness, the medical/pathogenic model, has dominated the discourse around Deafness for the majority of Deaf history which viewed the lack of hearing as a deficit which 'blamed the victims for their inability to achieve equality' (Ladd 2005:15). The shift from deaf to Deaf occurred throughout the 1960s emphasising the need to convert thinking about Deafness from a pathological definition to one of a linguistic minority (Bauman 2008). Moving away from the medical/pathogenic model, many D/deaf people now view themselves as

a 'linguistic minority' as their language of BSL is what unites D/deaf people and maintains D/deaf culture (Jones 2004:138). Lahiff (2000) has commented that language is often a defining feature of culture. In addition, Groce (1985) has suggested the variety of dialects within sign language was a direct result of sign language being limited or forbidden historically. Armstrong and Wilcox (2007) have further suggested the acceptance of sign languages has enabled D/deaf people themselves to be heard and to question professionals and experts.

Jarvis (2002) has suggested that a number of D/deaf young people who have experienced mainstream education are excluded from both the Deaf world and the hearing world. An organisation, *Deaf Ex-mainstreamers Group*, was set up by D/deaf adults who had endured a mainstream education, and who felt they did not:

....develop an understanding of the Deaf community and its language and culture and were thus excluded (Jarvis, Iantaffi and Sinka 2003:207).

It has also been proposed that marginalisation is not restricted to the outside world but may occur within the family environment. Hearing parents and/or siblings may only acquire basic signing skills (Gregory and Knight 1998), a particularly pertinent point as 90% of Deaf children are born to hearing parents (www.ndcs:281013). Armstrong and Wilcox (1989) have also suggested that 50% of D/deaf adults suffer from mental illness, possibly as a result of prolonged isolation. This is genuine problem for D/deaf people although not a new phenomenon. Rosen

(2008) has suggested a strong culture was as a result of being shunned and isolated by society.

Regular contact with other D/deaf people via clubs and associations may benefit D/deaf people who feel they do not 'belong'. However for a variety of reasons, the numbers of D/deaf clubs in the UK are declining. These clubs have always been the bedrock for D/deaf identity and culture and it is a genuine concern for older D/deaf people who maybe have not been introduced to the numerous applications of communication and technical aids available.

Traditionally, Deaf clubs were pivotal for the Deaf community which provided 'security and assurance' (1995:23). Members of a Deaf club may view the other members as 'significant others' (Bauman 2008:22), important agents in the lives of the other members who may share the same goals and face similar discrimination from mainstream society. Conversely, due to the nature of the club membership, hearing people were generally regarded as 'outsiders' and a number of D/deaf clubs would not welcome hearing people (Ladd 2003). It appears strange that so few clubs would welcome hearing people who wanted to learn and/or develop their signing skills where hearing people might have a D/deaf family member, D/deaf friends or neighbours; or require signing skills for professional reasons, such as interpreting, teaching and social work.

An interesting concept is that of the cultural hybrid (Schultz 1995), brought about as a result of medical interventions/technologies which

threaten the whole concept of Deaf identity, culture and community. The growing number of cochlear implants is one such threat. Cochlear implants can be fitted at a very early age to enable previously D/deaf youngsters to have some residual hearing. With previously D/deaf children now acquiring speech and hearing, there is little need to start or to continue communicating using BSL. If the next generation of D/deaf children are no longer D/deaf, there is a chance that cochlear implants will become a valid threat to D/deaf culture and D/deaf identity (www.metro:281013). The D/deaf community may view people with cochlear implants as deviant (Bauman 2008; Ladd 2003) for wanting to fit into mainstream society and education. This is because deafness is regarded as the norm in D/deaf culture, not hearing. The British Deaf Association (BDA) amongst others, are not so accepting of such technology suggesting that children and young people suffer psychological harm as they are excluded from both the D/deaf and hearing worlds (www.bda:101013). The confusion may lead the young person to feel like a 'cultural hybrid' (Schultz 1995), on the edge of the two distinct groups but unsure to which group they belong. However, cochlear implants are generally regarded as a positive step forward by hearing people with little or no concept of Deaf culture. Hearing people generally have no incentive or interest in preserving D/deaf culture as their concerns focus on the well-being of their child. Educators within higher education need to be aware that learners with cochlear implants do not

have the same level of hearing as their peers, rather a 'sensation of noise' ([www.bbc:281013](http://www.bbc.com/news/health-281013)) potentially requiring a level of support.

If we can understand the issues around identity and community, educationalists within higher education may be better prepared to provide appropriate support. It is imperative that we respect D/deaf learners if their first language is sign language and attempt to provide a welcoming environment where diversity within teaching environments is embraced. Higher education institutions need to ensure that their curriculum is suitable for a diverse body of university learners, including those who are Deaf or hard of hearing. The following *Communication and Technology* section provides elaboration of the significance of sign languages and the technological advances which have resulted in both positive and negative experiences for D/deaf people.

2.3 Communication and Technology

The key transition will be shifting from a focus on providing equal access to information to a focus on providing equal access to communication
(Katsiyannis, Zhang, Landmark and Reber 2008:61).

Communication and technology are highly relevant for Deaf individuals considering higher education as part of their career path. In this context, communication also refers to the different types of sign language and/or speech methods which have been adopted by D/deaf people. Mainstream education rarely acknowledges that the life experiences of D/deaf learners can be drastically different than for hearing learners. I have therefore

attempted to briefly explain the differences between D/deaf and hearing learners, as educationalists need to be aware of the diverse methods of communication, hopefully enabling the people working in education to be as inclusive as possible for their D/deaf learners.

Advances in communication and technology have both advantages and disadvantages for Deaf people and the wider Deaf culture and community. Until recently, isolation and communication difficulties were problematic for many D/deaf people. Innovations such as hearing aids, cochlear implants and a gamut of mobile technologies have an impact on the way D/deaf people communicate. The introduction of the Internet, webcams, social networking sites, discussion forums and texting facilities have enabled many D/deaf people communicate to an extent never achieved before. A number of universities use these innovations for communicating with learners and/or utilising such systems for lecturing and learning. Consequently, this provides D/deaf learners more autonomy, giving this cohort of learners more power and control over their learning, when it is convenient for them rather than relying on communication professionals.

D/deaf people in the UK are geographically dispersed (with a few exceptions) yet the advancements in communication and technology have enabled communication worldwide. This particularly benefits D/deaf learners who have moved away from the family to attend university. One education authority has introduced an email system which enables

geographically dispersed D/deaf learners to 'network and foster peer support' (Jarvis, Iantaffi and Sinka 2007:216). Webcams are an excellent method of keeping in touch with friends and family if the learner prefers signing to English.

2.3.1 Communication: Sign languages and/or speech

Sign Languages have evolved over hundreds of years and were created by Deaf people for Deaf people. Herodotus and Socrates (Lang 2007) followed by Aristotle and Plato (Woll and Ladd 2007) were among the first writers to champion sign language. British Sign language users, for example, do not have a literary form of BSL, as it is a visual rather than a written language (Marschark and Spencer 2010). The rise in oralism as a pedagogy became widely popular in the mid nineteenth century, to the extreme of punishing pupils who continued to sign, and to some extent, signing was actually forbidden (Rosen 2008). However, evangelical Protestants viewed signing as a method of communicating with D/deaf people in order to convert them and/or access the bible (Najarian 2008). The most contemporary description centres on sign language as 'uniquely visuo-gesturo-tactile' as posited by Ladd (2005:39) in his theory of Deafhood.

Signing Deaf parents tend to prefer BSL when communicating with their D/deaf children. It is essential for a D/deaf child to be able to communicate within their home environment and ideal if a D/deaf learner

can communicate effectively with their classmates and lecturing staff. There is a suggestion learners whose home (native) language is similar to the learning environment will progress substantially better than adjusting to a different mode of communication (www.ied:281013). Monery and Janes (1991) have cited a biographical account of a personal experience at a D/deaf residential school in their research:

Although I was unhappy in the beginning, when I look back now I am glad I went to a Deaf school. I think it's a much more helpful environment for deaf people when they are growing up. The school community builds strength and confidence, especially through the shared communication of sign language (p.104).

There are a variety of signing communication options comprising of: BSL; Total Communication (TC); Natural Auralism; Signed English; Sign Supported English (SSE); bilingualism; cued speech; structured oralism and Paget Gorman (Ladd 2003). Total Communication, the philosophy of D/deaf education which maximises communicative choice through developing as many forms of communication as possible may benefit D/deaf young people when they encounter mainstream society, without threatening D/deaf culture. However, whilst bilingualism and biculturalism are acknowledged as being beneficial for D/deaf children, the individual child may not feel they fit into the D/deaf world, nor the hearing world, resulting in a liminal existence on the peripheries of both cultures. Schultz (1995) has also proposed that hearing people can learn the jargon, dialects and technical terms of a signed language. However, whereas a hearing person can learn to sign they will not have experienced

life as a D/deaf person. Politicised D/deaf people could view hearing people as 'sign-impaired' (Ladd 2005) which places sign language as superior to spoken language, rather than the conventional school of thought which views signing as an inferior method of communication. This study is primarily concerned with BSL/SSE and spoken English as they are the three languages most pertinent to this study.

It is also useful to see how sign language and D/deaf education is approached in an international context. Contrary to public belief, sign language is not universal (Fischer and van der Hulst 2007) although the concept of international sign language is being discussed and taught in a number of institutions. The following examples illustrate practice in a range of other countries:

- In the United States, American Sign Language (ASL) is the fifth most popular minority language (www.lib:281013).
- There is a joint initiative between Norway and China to further develop Chinese Sign Language (CSL) to ensure D/deaf children are taught an equal education (Saltnes 2008).
- In Africa, Gabon and Cameroon have no educational interpreters. However, Ethiopia has recently introduced educational interpreting at secondary level whilst Nigeria has continued to increase the number of interpreters in secondary and tertiary institutions (Abebe 2008).

- In Russia, the government department concerned with sign language communities was entitled the Ministry of Defectology (Ladd 2003).

2.3.2 Advances in communication and technology

Prior to the advent of emails and instant messaging, D/deaf people were reliant on postal services and/or communication relaying systems such as minicomms. Postal services and written material may have been very useful for people who had English as their first language as reading and writing would have been a familiar concept, but for D/deaf people who have British Sign Language, reading and writing English would have been their second or third language, or possibly had no English skills at all and therefore unable to access this medium (Power and Leigh 2007; Ladd 2003).

Advances in technology have enabled a greater number of D/deaf people to have access to independent communication without the need for a third party to be involved. Consequently, this provides more power and control in the hands of people who are directly involved, when and where it is convenient for them. As a result of the range of technologies available, D/deaf people may experience a decrease in feelings of isolation (www.ndcs:080814; Waldon 2002). Conversely, D/deaf people may increase their isolation if they adopt using technology to replace usual face-to-face encounters (Foley and Ferri 2012). Whilst it may be easier

for a tutor to discuss any issues with a D/deaf learner via an electronic system such as by email or WebCT, this should not be a total replacement of face-to-face sessions.

A range of technologies can be adopted to ensure a D/deaf learner can access as much of the university curriculum as possible. Radio microphones and/or loop systems can be utilised, where available, to complement the lecturer delivering the information. Academic and support staff should be notified of technologies which can be incorporated as part of the learning experience. Whilst the majority of learners with a disability or dyslexia can record teaching sessions, this is not practical or worthwhile for learners with hearing loss. It is important to acknowledge that the impact of advances in communication and technology is not always positive. Whilst deafness cannot be 'cured', hearing aids and/or cochlear implants can increase the hearing capabilities for a number of D/deaf children and adults although the use of cochlear implants have become a contentious issue for many people who identify themselves as Deaf (Sparrow 2010).

The advances in communication and technology are enabling D/deaf learners to feel included within the educational environment. Elsedoom (1998) has suggested:

The use of IT in deaf education is slowly beginning to emerge, showing its enormous potential for supporting the development of communication and language skills, as well as for teaching subjects such as geography, maths and biology (p.153).

In the United States, there is federal legislation which enables D/deaf and disabled learners to record teaching sessions, regardless of the views of the lecturer or tutor. Whilst this method will be of little use for Deaf learners, hard of hearing learners may benefit using amplification equipment to play back the recordings. In the UK, we do not have legislation for this scenario, although three organisations (Skill, Disability Rights Commission and National Association of Teachers in Further Education 2006) worked together to draw up guidelines for such situations.

2.3.3 Notetakers in contemporary society

Throughout history and modernity, there are numerous roles where people write notes on someone else's behalf. The earliest reference relates to ancient Egypt and Thoth, the scribe to the gods ([www.bbc:221106](http://www.bbc.com/news/221106)). In today's world, scribes and notetakers are found all around the world and provide a variety of different notetaking services. In Mexico, public scribes compose letters, draw up contracts and fill out forms wherever needed (Kalman 2000). A similar system is in use in North Sudan and 'community literacy scribes' (Mace 2002: xii) are utilised in Nepal to enable non-literate people to contribute to newsletters. Kalman (2000) has noted that scribes in Mexico fluctuate between 'composer' and 'hired hand' (p.86-7).

In the twenty-first century, secretaries, receptionists and prisoners are just a few examples of people who provide notes for someone else. One could argue that a person transcribing text for research purposes could be called an amanuensis (McClimens 2004) as they are writing down every word and nuance which has been recorded.

The issue of sign languages is complex but it is vital for educationalists to acknowledge that standard teaching practices may need to be adapted to embrace learners who depend on a visual language rather than a verbal one. Rather than considering sign languages to be inferior to spoken languages, we all need to acknowledge the rich history of how D/deaf people themselves devised a language which was accessible for them to communicate with each other, and how communication and technology are enabling D/deaf learners to succeed at university. The following *Compulsory Education* section explores the history of how D/deaf learners have been educated in the past and the more recent concepts of mainstream versus specialised provision.

2.4 Compulsory Education

Above all there is a need for a major cultural shift; all in academia need to be more open to inclusive teaching, learning and assessment (Mowe, Barnes and Nicholson 2008:9).

The inclusion of this subheading is important for a number of reasons. It is important for this study to acknowledge the prior educational experiences of D/deaf university learners. Their experiences may have

been positive, negative; or a mixture of the two. Whilst this section is concerned with compulsory education, it also includes a brief synopsis of further education in colleges. This is because the transition for D/deaf learners may be from a school or college.

2.4.1 A historical synopsis of D/deaf Education

Armstrong and Wilcox (1989) have suggested that although D/deaf education was in evidence in Ancient Roman times, it was not until the sixteenth century that the introduction of specialised teaching methods in specific learning environments was available for D/deaf children. In the 1820s, Thomas Hopkins Gallaudet travelled throughout Europe gathering methods of teaching D/deaf children (Marschark and Spencer 2010). Gallaudet, in partnership with Laurent Clerc, opened the first school for D/deaf children in America, the American Asylum for the Deaf at Hartford in 1817, whilst his son, Edward Miner Gallaudet, followed in his father's footsteps in the 1860s (Najarian 2008).

Specific schools for educating D/deaf children were introduced in Edinburgh and Paris in the 1760s and 1770s (Groce 1985). The late nineteenth century witnessed a surge of Deaf schools and other organisations where sign language was revered (Ladd 2003). In the 1920s, the Royal Association of the Deaf (RAD) challenged the medical professionals who misdiagnosed D/deaf children as 'mentally subnormal'. The RAD assisted the children who had been removed from 'mental

asylums' and placed them into specialised schools for D/deaf children (www.royaldeaf.org.uk). Special schools, including specialised schools for D/deaf children are often regarded as antiquated, segregated institutions which no longer have a place in an advanced, civilised society. Paterson and Hughes (1998), for instance, suggests specialist institutions were 'used primarily as instruments for segregative control' (p.158). The use of specialist D/deaf schools are one of the most contested issues between Deaf people and the majority of disability activists.

Bayton (1996) has suggested that D/deaf education was overshadowed by the promotion of manualism as a means of promoting education and the employability for D/deaf people and was in evidence until the middle of the nineteenth century. Finkelstein (1997) has suggested that auditory approaches have historically dominated communication in education, which in turn has excluded learners with little or no hearing. Acknowledging that D/deaf learners may prefer BSL or SSE is an important step for educators to recognise – once educators are aware of the relevance of sign language, the easier it will be for them to create an inclusive learning environment which in turn will not perpetuate the feelings of isolation of previous D/deaf learners.

On an international level, D/deaf education has only been in evidence in China for 120 years (Saltnes 2008) when an American missionary set up the first school in 1887. Deaf discourses are welcomed in China as an estimated 20 million people are D/deaf and education is provided in 644

schools specifically for D/deaf children. This is in total contrast to an article in *The British Deaf-Mute* (1892) which described a German school where 'pupils had their hands tied behind their backs so as to prevent them conversing by sign' (Ladd 2003). Germany has since changed their practices as stated by Cremer (1991) who reported that 69.5% of the 125 D/deaf learners who participated in the study viewed notetakers as important for their success.

2.4.2 Deaf education

The British Deaf Association (BDA) has suggested approximately 90% of D/deaf children now attend mainstream schools (www.bda.org.uk). However, whilst the ideology of special schools is negated by the majority of disability theorists and a number of organisations, there are young D/deaf students and their parents who would prefer a D/deaf learning environment. Research has consistently stated that many D/deaf and hard of hearing children have 'significant language and vocabulary delays' (Schick 2008:19). Whilst some educationalists dispute this sentiment, educationalists in all levels of education from infants to universities need to acknowledge this possibility when teaching D/deaf young people. One possible argument against mainstreaming for D/deaf learners is stated by Russell (2008):

Deaf students are physically placed in the inclusive environment, but in terms of creating positive social connections with non-Deaf students, contributing as a learner in the classroom, and having linguistic input that is complete, Deaf children are more likely to report social isolation, non-participation and academic exclusion (p.4).

The D/deaf community and the disability movement are often at loggerheads regarding D/deaf education. The D/deaf community often prefer segregative education whilst the overwhelming majority of the disability movement members believe placing children with a disability and/or impairment in mainstream schools is the most appropriate learning environment (Corker 1998). However, according to Ladd (2003) mainstreaming D/deaf children can be viewed as a Deaf holocaust or cultural genocide (Najarian 2008) whilst Ladd (2005) regards the pedagogy of oralism is partly responsible for the mental illness experienced by D/deaf adults. Ladd (2003) further describes the oralist methods of the last 120 years which 'removed Deaf educators, Deaf communities and their sign languages from the Deaf education system'.

The previous comment is almost contradictory to the following points proposed by a university which advocates an oral education:

- To enable young D/deaf people to speak for themselves.
- To enable young D/deaf people to communicate with the world at large.

- To enable young D/deaf people to undertake higher education.
- Young D/deaf people taught in an oral environment experience life and education with little, if any difference from their hearing peers (www.entcolombia:121013).

Oliver and Barnes (1997) are among a number of disability theorists who believe all children should receive a mainstream education as they deem special education to 'perpetuate the misguided assumption that somehow disabled people are inadequate' (p.273). As a result of this contention between the different sides of the argument, a number of perspectives have been put forward regarding segregated education:

1. Functionalist – disabled children require additional support which cannot be met in mainstream. The segregated system was largely a result of philanthropy.
2. Conflict – segregation is the result of professionals, such as teachers, excluding what they perceive as problem children.
3. Neo-Marxist – views segregation as a pernicious system of social control' (Barnes, Mercer and Shakespeare 1999).

The debate is whether, as stated previously, special education actually fits into human rights ideology, of what is best for individual children (Barnes,

Mercer and Shakespeare 1999). Treating D/deaf children as one homogenous group has resulted in many children attending a mainstream school which does not suit or meet their individual needs (Foster, Long and Snell 1999). Osguthorpe, Whitehead and Bishop (1978) suggested 'quality educational supports must be provided to mainstreamed deaf students' (p.563). Research by Vonen (2008) suggests a number of D/deaf children in mainstream environments experience serious communication difficulties when attempting to interact with peers and research conducted by Russell (2008) found that all of the D/deaf learners in her study 'did not have friends or meaningful connections to other non-Deaf students' (p.6).

Whilst 'special' schools have been lampooned by experts, 'special schools employed a range of qualified and experienced teachers' (Muir 2008). Creese, Daniels and Norwich (2012) have suggested that many student teachers felt inadequately trained in meeting the needs of children with different and/or special educational needs. Appropriate training is required for teaching and support staff to ensure individual needs, such as language abilities, are met (Jarvis 2002), whilst Osguthorpe *et al.* (1978) observe:

If no training or inadequate training is provided, we run the risk of the injustices of mainstreaming (p.564).

Katsiyannis *et al.* (2009) have suggested the lack of awareness and inability to interact with learners who have a disability maybe responsible for learners receiving an unsatisfactory education. Currently, although secondary teacher training does incorporate learning about how to engage effectively with a mixed class of young people (Winter 2006), there is no national standard for the amount of knowledge a trainee teacher receives on issues of disability and/or special educational needs. The same could be said for graduates undertaking a Postgraduate Certificate in Education (PGCE) for people who have not studied a qualified teaching status (QTS) course and/or who are intending to make a career change (Ofsted 2008). A rather extreme remedy to this situation is found in Norway where teachers have six months training in Norwegian Sign Language (NSL) (Vonen 2008).

The low expectations of a number of mainstream teachers towards D/deaf children (Jarvis 1991) may lead to a negative self-fulfilling prophecy for some D/deaf young people. A disability activist in the States has overheard conversations between teaching staff who discussed disability in 'patronising and disempowering ways' (Michalko 2004). It would not be surprising if disabled alumni feel patronised and disempowered as a result of this bigotry. On a positive note, special education teachers tended to have the most positive beliefs and attitudes regarding inclusion (Avramidis and Norwich 2002). In addition, Jordan, Lindsay and Stanovich (1997) posited established teachers with an interventionist (social)

perspective were more accommodating than teachers with a pathogenic (medical) perspective towards children with a disability and/or special educational need. This has been addressed in China as there has been a cultural shift within compulsory education by providing D/deaf teaching assistants and employing D/deaf adults to work in education (Saltnes 2008).

Pathogenic teaching staff may view D/deafness as an individual deficit whilst interactionists adopt teaching strategies which take into account the learning environment and the individual learner (Avramidis and Norwich 2002). Interactionist approaches to teaching view learners as unique, individual learners. Discovery learning may assist mainstream teaching staff who have D/deaf learners in their teaching sessions (Louis, Brooks, Aldrich and Tenebaum 2011). Consequently, the beliefs and attitudes of teaching staff are fundamental as to whether or not inclusion is successful or not (Avramidis and Norwich 2002; Soodak, Podell and Lehman 1998). Deaf awareness training for staff, and hearing peers, is vital for D/deaf learners to feel included (Jarvis, Lantaffi and Sinka 2003). In addition, Wakefield (1998) has suggested the need for D/deaf awareness training for staff as essential to supporting D/deaf learners. The following comments endorse the need for more staff training:

Teachers new to deaf/hard-of-hearing students can be nervous; but give us time and we'll earn your respect.

Teacher refuses to listen to deaf speech (www.rit.edu/151106d).

Baglieri (2004) has developed methods which enable prospective and existing teachers to utilise deep self-reflection to question their own experiences and knowledge to ensure they are as disability-aware as possible. Najarian (2008) has further suggested that the learning environment is a community which all identities are forged through social interactions. A number of learners from RIT, in the United States put this situation succinctly:

Teacher attitude! If it's great, WOW; if its lousy students can't learn.

By doing well in the course, I changed the professor's attitude from negative to positive.

It's REALLY appreciated when teachers extend themselves (www.rit.edu/~151106d).

Although the overwhelming majority of D/deaf children are primarily visual learners according to Jarvis (2002), learning environments generally utilise acupedia (oral approaches) which relies heavily on hearing where visual clues are minimal, if existent at all (Armstrong and Wilcox 1989). To address this issue, an appropriate strategy would be to adopt captioned video or computer-based presentations (Saltnes 2008).

Parents of children who have speech and/or language difficulties are often concerned the needs of their children will not be met within a mainstream environment. Parents are concerned as to whether the teachers and classmates can understand the child, and as to whether the child will learn in such a one-size-fits-all class (Ripley, Barratt and Fleming 1991). However, the Centre of Studies in Inclusive Education (CSIE) suggests

that disabled children generally develop better social skills and improve their learning in a mainstream school. Residential schools (sometimes referred to as a 24 hour curriculum) may be the last resort if there is inadequate provision for signing students. BSL and SSE users may benefit from the opportunity to communicate effectively, both socially and academically (Morris, Abbott and Ward 2002).

Another strategy is to ensure D/deaf learners do not feel isolated within mainstream environments is to employ D/deaf teaching staff, who are noticeable by their absence in tertiary education. Not only would the D/deaf learner identify with the staff member, other learners and teaching staff would be able to view the D/deaf tutor as a positive role model. This would also impact on hearing staff members who often regard D/deaf teaching staff with negative attitudes. This is exemplified by Clare Nelder, who identifies herself as a Deaf teacher, and who states:

Many people have stereotypes of what deaf people can or cannot do. In reality, just as with hearing people, this is individual and no generalisations can be made regarding our ability to teach. In employment or any new situation in school, my potential problems are the same. 'How can she work with us?' 'How can she discipline the class?' 'What happens if there is a fire?' (cited in SKILL 1999:12).

The majority of hearing learners will not have had the same educational experiences of their D/deaf classmates. D/deaf learners have often experienced some sort of segregated education and/or marginalisation (Dixon, Smith and Jenks 2004) during their compulsory pre-16 education. This is possibly why many D/deaf children have left school with a reading

age of eight for the past 100 years or so (Ladd 2003). One strategy which will hopefully address this situation in the future is to ensure that hearing students have the skills and a positive attitude when interacting with their D/deaf peers (Luckner and Muir 2002).

Whilst the majority of D/deaf children are being taught in mainstream education settings, as long as signing continues, D/deaf culture will remain part of the wider British society. Staff awareness training may enable university staff to acknowledge the previous educational experiences of our D/deaf learners. It is also a step forward to include issues surrounding D/deaf and disabled learners as part of the teacher training programmes. A report conducted by Ofsted (2008) involving 70 schools and 100 trainee teachers, established that the PGCE courses were 'at least satisfactory in terms of preparing trainees' (p.4) to teach disabled learners. However, of 77 lessons observed, 12 were deemed inadequate in supporting such learners.

2.5 Post-compulsory Education

Since 1 September 2003, education providers have to provide auxiliary aids and services as part of their reasonable adjustments duty ([www.equalityhumanrights:2014](http://www.equalityhumanrights.com/2014)).

Although the majority of D/deaf people were previously excluded from tertiary education, recent positive changes have enabled greater numbers to enrol at universities (HESA 2013; Marschark and Spencer 2010). The themes throughout this section will identify the issues which have enabled

more D/deaf learners to consider the option of going to university as a real and viable option for the beginning of their career path. Issues such as how D/deaf learners have fared historically; the transition from school or college to university; possible explanations for the increasing numbers of D/deaf learners going to university; the changes and improvements in legislation; and the specific funding, in particular the Disabled Students' Allowance (DSA) which is now available. The final aspect of this section is a brief synopsis about the additional auxiliary support for D/deaf university learners which is available in universities and which forms the focus of the research undertaken.

2.5.1 D/deaf university learners – transition from school or college to university

Historically, higher education was the bastion of the (mostly) white, male, non-disabled, middle classes; and not the domain of minority groups such as D/deaf learners. However, opening up access to higher education can be viewed as a step towards equal opportunities and empowerment (Fuller, Bradley and Healey 2004; Hurst 1996). Widening access for D/deaf learners is a measure which is in step with social justice and human rights (Bunch and Valeo 2004). At a personal level, a university education also has the capacity to promote independence, self-reliance and the opportunity to further improve socialisation skills (Royal College of Psychiatrists 2001). Lecturers also need to acknowledge the fact that

D/deaf learners often have to work harder than their hearing peers in any teaching environment.

The transition from school/college to university can be an upheaval for all university learners. However, research suggests that disabled and D/deaf learners encounter a number of barriers which their non-disabled classmates do not experience (Tinklin, Riddell and Watson 2004; Fuller 2004b). In addition, Parker (1999) has suggested traumas such as 'stress, breakdown, demoralisation, frustration, depression, disappointment and loneliness' have been cited by a number of disabled learners studying at a HEI in the south east of England. D/deaf learners are generally better equipped for transitions if they are self-aware and given the opportunity to gather information to enable them to self-advocate (Luckner and Muir 2002). Learners entering higher education are 'expected to be functioning as independent individuals responsible for their own learning and living' (Parker 1999). This may be problematic for D/deaf learners if they require the services of a notetaker. If complications arise from a personality clash, or being assigned an undergraduate instead of a qualified notetaker, these issues will impact on the learner's capability to take responsibility for their learning.

2.5.2 Changes and improvements in legislation

The changes and improvements in legislation may be one of the reasons which are enabling an increase in the number of D/deaf learners

attending university. The initial Disability Discrimination Act (DDA 1995) did not address places of learning, such as universities. It was a statutory requirement for universities to adhere to the Special Educational Needs and Disability Act (SENDA) (2001) to remedy the omission of education in the first DDA (www.gov:281014). SENDA expected institutions to adopt 'anticipatory adjustments' towards the requirements of disabled and D/deaf learners (Waterfield and West 2003). The SENDA and DDA legislation has recently been replaced with the Equality Act 2010 which will hopefully protect D/deaf learners from an unsatisfactory educational experience (www.gov.281013b). Whilst it is unfortunate that universities needed further legislation to welcome D/deaf learners, it is better to have some form of legal framework to ascertain the responsibilities of higher education institutions (HEIs) to ensure that adequate resources are available for D/deaf learners who want to pursue a tertiary education.

In addition, the legislation relating to higher education has developed even further with the introduction of the Disability Equality Duty (DED) (2005). The DED requires even more robust responsibilities from HEIs and staff to acknowledge, to include and to value their disabled learners, including those who are Deaf or hard of hearing. The Office of Disability Issues stated one of the requirements of the DED was to encourage participation by disabled people in public life (www.gov:281013b). One of the methods of encouraging D/deaf learners is to actively participate in society through providing suitable education at tertiary level (Thorley

2007a). This has also been aided by the law acknowledging British Sign Language (BSL) as a British indigenous language in 2003 (www.deafaction:281013) However, a word of caution is required here as such policies do not ensure good practice (Piggott and Houghton 2007). However, institutions and individuals need to be aware of the following:

Lack of disability legislative knowledge may also lead to a failure to provide reasonable accommodations and may ultimately result in litigation (Katsiyannis *et al.* 2009:36).

There have been a number of high profile court cases over the past few years (Hirsch and Lagnado 2010) as a result of individuals or HEIs not supporting a learner adequately. As with other practitioners in this field, I have serious reservations for such court cases in the future since the demise of the Disability Rights Commission (DRC). One of their high profile services was to back such complaints, there has not been much evidence of this since the DRC has been subsumed into the Equality and Human Rights Commission (EHRC) which came into effect on 1st October 2007. This is supported by the following quote from Sir Bert Massie:

There's a whole range of issues which are of concern to disabled people which the new commission isn't really pushing at all (www.bbc:171108).

Internationally, the legislation is diverse which is as expected. The United States is unusual in that some of the legislation is federal whilst others are state specific. The Americans with Disabilities Act (ADA) (1990) and

the Individual with Disabilities Education Act (IDEA) (1997) are two examples of federal legislation which is country wide and addresses all levels of education. Whilst the terms 'reasonable adjustments' and 'anticipatory measures' are used in England, the term in American legislation is 'accommodation' (www.siu:281013; Katsiyannis *et al.* 2009). I have also discovered a university (Simmons in Boston, U.S.A.) which has an ADA compliance officer which suggests the institution in question acknowledges the importance of the ADA (www.MY:281013).

2.5.3 Funding for D/deaf Learners

As with the majority of all things educational, funding is vital. D/deaf learners can access the Disabled Students' Allowance (DSA) to enable them to study on par with their hearing peers. The DSA is provided for learners who require human and/or technical support for university learners who have a declared disability and/or learning difficulty. The existing DSA was modified in 1990 as part of the Student Loans Bill (Hurst 1996) with the introduction of a £4000 p.a. allowance, an immense improvement in the previous arrangement of a maximum award of £750 (McCrea and Turner 2007). Currently, the allowance for human support is £20,520 (academic year 2013-14) (www.practitioners:040414) per annum. Whilst this sounds a vast amount of money, if learners require regular support from an interpreter or CSW, this figure does not cover the cost. A number of courses, such as teaching and social work, which have a considerable number of lectures over the academic year can far exceed

the allowances. The 2013 Snowden Trust report calculated the DSA allowance for a postgraduate student would entitle the Deaf learner to just one hour of interpreting support per week ([www.snowdentrust:140414](http://www.snowdentrust.org.uk/140414)). The notetaking and interpreter costs to support one Deaf social work learner at a London university in the academic year 2009/10 exceeded £86,000 (BH, personal communication). It is also noteworthy that learners who access the DSA are less likely to leave university and complete their programmes than learners who do not access the funding, and subsequent support ([www.ecu:281013](http://www.ecu.ac.uk/281013)).

Whilst the DSA funding is welcome, there are a number of negative issues associated to the allowance. The fact that disability is placed within the title perpetuates the medical/pathogenic model of disability whereby if you have an impairment/disability, you may be entitled to additional support (Parker 1999). It should also be acknowledged that many D/deaf learners do not regard, or label themselves 'disabled' (Najarian 2008; Houghton 2005) and therefore may not apply for funding to which they are entitled. Potential barriers also exist to an 'increasingly diverse and international agreement' (McLean, Heagney and Gardner 2003) as learners outside of the European Union are not entitled to DSA. Consequently, until there are changes within the DSA and/or other funding bodies, international D/deaf learners rarely receive adequate support from notetakers and other communication professionals (CPs) whilst studying in the UK.

2.5.4 Additional auxiliary support for D/deaf university learners

In addition to notetakers, D/deaf learners may also benefit from interpreters, communication support workers and/or a Teacher for the Deaf (ToD). Traditionally, provision for all disabled learners (including those who are Deaf or hard of hearing) has been under the remit of Student Services, or similar, which has raised both concerns and criticisms (Houghton 2005; Tinklin *et al.* 2004). This is despite the fact that embedding policy relating to disabled learners within such departments perpetuates the medical/pathogenic model of disability which is a concept deemed outdated by the majority of writers in this field. Information regarding Student Services (or similar) is often available on university websites (Royal College of Psychiatrists 2002), although evidence suggests that it is the responsibility of the individual learners to make initial contact, which learners felt they were being left to get on with it on their own (O'Connor and Robinson 1999).

Interpreters and CSWs are both found in higher education. This is despite the fact that the training for both roles does not require a university education. Research conducted in the US by Kurz and Langer (2004) discovered 45% of more than 2,000 interpreters 'did not have sufficient interpreting skills to be in a classroom' (p.20). Consequently, this lack of knowledge would have a negative impact on the D/deaf learner being supported as they may have no other way of accessing the relevant information. In contrast, a recent survey undertaken by thirteen members of the Association of Notetaking Professionals (ANP) ascertained that the

majority of respondents possessed a postgraduate qualification in addition to their first degrees (Thorley 2007a). A respondent in research conducted by Parker (1999) recommended that it may be necessary to provide disability awareness training to all university staff rather than the voluntary, often *ad hoc* provision which exists in most HEIs. In this context, a lack of awareness maybe viewed as a form of oppression (Tinklin *et al.* 2004). Since 1st September 2003, institutions have had to provide support staff as part of the 'reasonable adjustment' aspects of the legislation (www.drc:281013). Whilst this is a positive step forward, universities interpret 'support staff' differently. In addition, accessing these services can be an additional problem facing a number of learners, such as adopting the role of employee, in addition to concentrating on being a learner (Parker 1999).

Learners, both existing and potential, can be referred to disability and/or D/deaf advisors, if this is declared on the UCAS form (www.ucas:281013). In addition to organising support staff, such as notetakers, and arranging exam provision (Rothstein 2003), advisors can liaise with departmental staff (Avramidis and Skidmore 2004; Gamble 2000; Parker 1999). Advisors can also provide encouragement as well as someone to discuss the formal and informal aspects of university life. Advisors can also tackle negative attitudes towards D/deaf learners who require additional support, often using a combination of persuasion, argument or imposing policies of their institution (Tinklin and Hall 1998). However, in reality,

advisors such as these have limited influence, especially in the context of teaching which is generally viewed as the responsibility of lecturing staff (Tinklin *et al.* 2004).

On an encouraging note, research conducted by Hall and Tinklin (1998) suggested learners regarded their advisors in a positive light and were generally found to be very supportive. Hurst (1999) has reinforced the importance of providing experienced, professional, special support staff, rather than allocating random staff or other learners, to provide the support to which the learners are entitled.

Whilst the majority of HEIs employ counselling and/or mental health professionals, the National Council on Disability (2004) and Beecher, Rabe and Wilder (2004) have proposed many counsellors lack the knowledge and expertise to counsel disabled learners. Fifty per cent of D/deaf adults will experience mental health difficulties at some stage in their life, ranging from mild depression to psychosis (www.nhs:281013). This can be exacerbated further if the learner has sign language as their native language and may be reliant on an interpreter when meeting with a counsellor (www.signhealth:281013). One strategy suggested by counselling staff is for learners to adopt a self-regulated approach to learning which appears to reduce external factors which may prohibit or reduce the ability to learn (Heikkilä and Lonka 2006). It has been acknowledged that disabled learners experience particular disadvantages

and/or challenges within higher education (National Council on Disability 2004; Tinklin *et al.* 2004).

Strategies such as the UNIQoLL initiative being undertaken at an English university which aims to 'monitor student well-being over time, on a university wide basis' (Cook, Bewick, Barkham, Bradley and Audin 2006) may be a system which can provide additional support when needed. On a positive note, Hurst (1999) has stated a number of higher education institutions, primarily former polytechnics, have attempted to develop 'high quality provision', and that:

Since 1992, much has happened and significant progress has been made in the policy and provision for disabled students (p.9).

University staff need to acknowledge the different educational experiences of D/deaf learners to enable us to provide suitable support rather than attempting a one-size-fits-all approach which appears to be the case in the majority of UK universities. Funding continues to be a critical issue within education and is often fundamental in enabling D/deaf learners to access the university curriculum. However, this should not detract from the excellent support which is in place in a number of UK higher education institutions.

The following *Notetaking in Higher Education* section is the final segment of the literature review and background section which hopefully provides an insight to past and current notetaking practices. The recent employment of professional notetakers is very different to previous

educational experiences of the few D/deaf people who attended university before the introduction of the Disabled Students' Allowances.

2.6 Notetaking in Higher Education

If lecturing is a teacher's sacred cow, then notetaking is a student's Holy Grail (Titsworth 2004:138).

This section of the literature review is the most pertinent in addressing my research question of what makes a successful and positive experience of being supported by notetakers. There are a number of important elements within the literature to aid the reader in familiarising themselves with the subject. The review begins by briefly differentiating between professional notetakers and people who provide notetaking support without a professional qualification. The literature review continues with the importance of comprehensive notes, which university learners require to assist with exam revision and coursework. This is followed by a historical synopsis of how notetakers and/or scribes evolved. Again, this is to enable the reader to have some context for how notetakers can facilitate in a number of guises, including the introduction of notetakers into higher education.

There is a general misconception that scribes and notetakers merely copy down what is in front of them or write down the words someone says, word-for-word (Mace 2002). This is explained and negated by clarifying the actual situation and addressing why qualified notetakers have a far

more complex role to play than simply 'copying things off the board'. The question of why notetakers are required by a number of D/deaf learners whilst they are studying at university follows the historical aspects before providing an overview of the different types of notetaking currently being employed in universities; it is no longer a matter of an additional student with some papers and some pens. There are also a variety of different methods and job titles that have slowly evolved over the past twenty years or so, and will no doubt continue evolving as new job titles and new methods of providing notes appear. Universities generally have one of four approaches to supplying notetakers: in-house, utilising student notetakers, engaging freelance notetakers, or via an agency. All four approaches have both negative and positive features which will be discussed in this section.

As with the majority of issues regarding support for D/deaf university learners, there are examples of both good and practice in higher education institutions in the UK. It was the negative experiences still occurring in UK universities which prompted me to undertake this study. My approach was to study these practices in collaboration with a number of D/deaf learners to provide a comprehensive document detailing the support which is preferred by the D/deaf learners themselves, rather than asking D/deaf learners to fit their notetaking requirements to suit the institution. In addition, educationalists need to be aware of the following:

It is important for the lay reader to understand that virtually all discourses about Deaf people have been conceived, controlled and written by people who are not themselves Deaf (Ladd 2003:47).

Through the consultation with D/deaf learners, regarding them as the experts on this subject, their ideas and experiences are conveyed directly, rather than through a paternalistic study where an 'us and them' mentality is evident. My stance in this study was of a professional ally working *with* D/deaf learners rather than a researcher working *on* research participants, as the Deaf co-researchers were regarded as 'consultants and partners, not just research subjects' (Kitchin 1999:25). I did not want to be regarded as a 'paper professional' as posited by Davis (2007) who is critical of researchers who:

Still think it is normal to sit round the table and decided what's best for us (p.198).

Also, by consulting primary and secondary co-researchers who were D/deaf themselves, befits the social model of D/deafness rather than the anachronistic medical and/or pathogenic models. Rosen (2008) has suggested that 'voices from the deaf community were largely muted in scholarly discourse' (p.138). Whilst I have years of notetaking experience, I cannot pretend to know what it is like to be supported by a notetaker. In addition to consulting D/deaf learners, previous research conducted by Thorley in 2008 investigated how professional, qualified notetakers regarded the support they provide.

This section of the literature review therefore continues with (mostly) anecdotal comments, personal experience and information gleaned from 'grey literature' (Mertens 2010:137) which includes electronic references, newspapers and specialist publications. This is due to the lack of empirical evidence on this topic. Hopefully these eclectic sources of information can provide an adequate framework in understanding the range of elements which are important to providing an insight into notetaking support for D/deaf learners in higher education. Whilst there is little empirical evidence about notetakers and notetaking, using search engines on the Internet provides a wealth of guidelines and recommendations from around the globe. A number of universities have allowed public access to their notetaking practices which has also supplied invaluable information as to how different universities support their D/deaf learners with notetaking.

In addition to collaborating with the D/deaf primary and secondary co-researchers, I adopted an alterity stance in voicing the concerns of my fellow qualified notetakers (Breckenridge and Vogler 2001; de Certeau 1984). This is due to rarely having the opportunity to discuss our work as we have a 'seen and not heard' mentality when we are working. How not to conduct yourself as a notetaker is summed up by the following quote:

'I had two really good notetakers out of about 10 different ones. The others were students who kept interrupting the tutor in class, and that's not on' Fredgirl (Thorley 2007a).

2.6.1 What defines a professional notetaker?

Both my fellow notetakers and I have found that inclusive, welcoming institutions provide qualified staff wherever possible. The institutions which consider it acceptable to employ undergraduates and/or postgraduates rather than professional staff, tend to be the universities with a negative reputation. Embedded within this is also a funding issue as university students are less expensive to employ than qualified notetakers. I have worked for both types of university and have the required expertise and ability to tailor my support to suit the individual learner, a skill which is usually lacking in unqualified staff. When working for an institution where I am the only qualified notetaker, I rely upon my professional training, and the codes of practice and conduct as laid down by my professional body – the Association of Notetaking Professionals (ANP).

There is no consensus in terms of the titles ascribed to notetakers which include: scribe, amanuensis, transcriber, copyist, non-medical helper, language support professional, language support provider, dictatee, organic notetaker, manual notetaker and electronic notetaker. Palantypists, stenographers and speech-to-text operators also provide notes in HEIs, but provide a different support system and possess a different skill set utilising different equipment. Consequently, this study concentrates on purely manual and electronic notetaking support which are the most popular forms of notetaking support in universities in the UK.

The Association of Notetaking Professionals (ANP) had its inaugural session and AGM in November 2006. The body was set up by notetakers for notetakers. There are a number of distinct elements which justify the ANP calling itself a 'professional body' as suggested by Downie (1990:19), Eraut (2000, 1994) and Nixon (2001). Laffin (1998) has suggested there has been a decline in the traditional professions and a rise in new professions. I am proposing that qualified notetakers working in higher education is a relatively new and emerging profession. Thomas (2005) applies the following specifically to notetakers, in addition to other support staff working in higher education:

Support workers play a key role in ensuring disabled people can access education on equal terms with their non-disabled peers. There is a growing need to professionalise the role in order to ensure disabled people's needs are met effectively and consistently (p.4).

Of the four classifications of professions, as suggested by Laffin, my fellow qualified peers can be regarded as 'prospectors' – recent and aspiring professionals who are 'staking new claims and recruiting new members' (Peel 2005). Due to the length of experience of my fellow notetakers, I would suggest that qualified notetakers are either 'proficient' or 'expert' as differentiated in the Dreyfus and Dreyfus model of skill acquisition (Eraut 2000). My rationale for this statement is due to the educational qualifications of my fellow notetakers and myself. The overwhelming majority of notetakers on the ANP directory have at least one undergraduate degree. In addition, approximately half of these also

have a Master's degree or similar postgraduate qualification (Thorley 2008).

The commitment of professional notetakers to undertake continuous professional development (CPD) is fundamental to providing an excellent support service for the learners we support (Thomas 2005). As such, we could be regarded as 'learning professionals' as defined by Becher (1996:47) as notetakers 'develop their practical and intellectual skills throughout their lifetime' (Peel 2005:125). This is evident from the responses I received from a previous research study. All of the thirteen notetakers who completed the questionnaire regarded themselves as professional and the following are some of their responses:

N1 I have undertaken nationally recognised training and I adhere to the standards set by the national organisations I belong to.

N2 I am CACDP qualified and am university qualified in support work.

N3 I follow a professional code of practice as stipulated by the guidelines from my place of employment but also in line with ethical practice and guidelines taught when I was qualifying as a notetaker (Thorley 2008).

Whilst a number of universities and organisations provide their own training, the ANP only recognises qualifications from two awarding bodies – Signature (previously CACDP) and the Open College Network (OCN). This helps to reassure the people who use our directory that the notetakers available are suitably qualified. However, the OCN qualification does not integrate Deaf Awareness as part of the training – a fundamental

flaw which can be remedied by undertaking additional Deaf Awareness top-up training. A secondary aspect of the directory states the exact educational and notetaking qualifications of our members enabling people to identify support staff who have the required educational background to support a specific learner. It makes perfect sense to employ a notetaker who has a degree in psychology if this is the subject currently being studied by a D/deaf learner. Specific subject knowledge should enable effectiveness and greater accuracy (Mowe, Barnes and Nicholson 2008). I can also affirm that the majority of ANP members also possess the 'soft skills' as recommended by Collins (2003), who has described the qualities he thinks are important for all support staff. They include:

- Adaptability – to work at the student's pace.
- Writing – must be clear and quick.
- Empathy – for the student.
- Enabling – the learner to take control (p.17).

In the context of notetakers specifically, McCrae and Turner (2007) have cited the following skills as necessary requirements:

- Speed
- Clarity
- Organisation of writing

- The ability to précis
- The ability to paraphrase (p.104).

In the UK, the majority of universities and post-16 educational staff are aware of notetakers. However, in Australia educational notetakers are to be found in primary and secondary schools; TAFE (further education); and universities (www.NMIT:101207).

2.6.2 Are notetakers paraprofessionals?

This is a particularly thorny subject. I regard myself as a paraprofessional as I work alongside lecturing staff and the D/deaf learners access the taught material via the notes provided by a notetaker. A study conducted by Luckner and Muir (2002), which provided suggestions for supporting D/deaf learners in a mainstream environment, coined the term 'paraprofessional notetaker' (p.23). It exemplifies how I regard the role of qualified notetakers working within education. Rather than the conventional dyad of two agents – the lecturer and the learner – a notetaker is also involved in the learning process (Saulnier, Landry, Longnecker and Wagner 2008). The situation is very similar to the 'trilogue' (Monikowski and Winston 2007:351), which describes a situation involving a Deaf person, another and an interpreter. This is illustrated by the communication triangle as described by Thomas (2011:4) where all three partners are required for a successful learning experience:

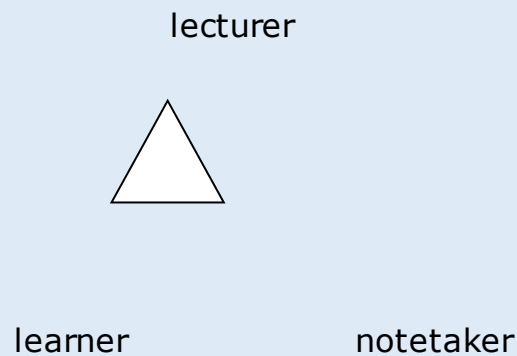


Figure 2.1 – communication triangle

Luckner and Muir (2002) have suggested lecturers and notetakers 'form partnerships' (p.26) to identify problems and implement adaptations which promote learner success although they neglect to mention the role of the D/deaf learner in this partnership. However, my experience is that professional notetakers are often consulted as experts by lecturing staff and non-D/deaf classmates. Whilst this is flattering to some extent, it is actually inappropriate as it is the D/deaf learner who should be consulted on educational matters which are relevant to them, rather than asking a support worker such as a notetaker (Bentley 1981:73). Paraprofessionalism is a potential description of qualified, professional notetakers suggested originally in 1967. Work undertaken by Osguthorpe utilised the term 'paraprofessional' for education staff and/or students who had been trained specifically to support D/deaf learners. I could only locate scant literature defining notetakers are paraprofessionals. It would

appear that notetakers are regarded as professionals or non-professionals; the possibility of qualified notetakers working as paraprofessionals has not been considered in recent years. The exception appears to be limited to Osguthorpe and colleagues (1967; 1978). Osguthorpe, Whitehead and Bishop (1978) and Devin-Sheehan, Feldman and Allen (1976) suggested that paraprofessionals have the potential to increase the chances of success for D/deaf learners in mainstreamed environments if the paraprofessionals are properly trained. Conversely, in Australia, a paraprofessional interpreter is a trainee interpreter, in the process of becoming a qualified interpreter (Napier 2005).

Adequate training would enable notetakers to consider the uniqueness of each D/deaf learner and how D/deafness may impact on their education (Osguthorpe *et al.* 1978). However, O’Keeffe, Slocum and Magnusson (2011) have written about staff involved in reading interventions, whilst Giangreco, Doyle and Suter (2012) and Giangreco, Suter and Doyle (2010) have reviewed recent research on teacher aides as paraprofessionals. An American colleague has suggested the following definitions as what separates professionals and paraprofessionals:

The standard definitions of a paraprofessional vs. a professional indicate that a professional has a degree, licence or certification in a specific field. ...professionals often belong to member organisations in their field, are subjected to requirements to maintain their licence/certification, and are expected to adhere to a professional code of ethics (SDP 2011:3).

Interestingly, professional licences in the UK are generally applied to areas like medicine, pharmacy and psychology. Research that I conducted in 2007 consulted thirteen qualified notetakers who were members of the Association of Notetaking Professionals who provided evidence that qualified notetakers were almost certain to be university graduates, with the majority possessing a postgraduate qualification in tandem with their notetaking qualification (Thorley 2007a). This raises the question as to whether qualified notetakers are overly qualified to be paraprofessional.

Giangreco *et al.* (2010) have suggested that for inclusive education to be successful, team members need to collaborate yet the work of paraprofessionals is often misunderstood and understudied. Personally, I view qualified notetakers as paraprofessionals in the same manner as paramedics or paralegals. Paramedics, for example, are paraprofessionals in that they work alongside doctors and nursing staff (Hodson and Sullivan 2011). Paralegals, whilst mostly associated with American law firms, work alongside attorneys, providing vital support. Lively (2001) however, has suggested that paralegals adopt the stance of professional as a reaction to 'feel better about the unprofessional manner in which they are treated by attorneys' (p.345). Paraprofessionalism is discussed in more detail in the *Phase One: Findings* section.

2.6.3 Impact of increasing numbers of D/deaf learners in higher

education: the impact on notetaking

The recommendations of the Leitch Report (2006) suggest that the UK had a skills shortage ([www.nationalarchives:281013](http://www.nationalarchives.gov.uk/leitchreport)) . Consequently, universities were looking at less traditional cohorts of learners to undertake a tertiary education. D/deaf learners are amongst the most untraditional cohorts. As the numbers of D/deaf learners continue to increase in higher education, so does the 'variety of learning needs' (Jacklin and Robinson 2007:114). Parker (1999) has stated how disabled groups have been 'invisible or poorly presented in post-compulsory education' (p.178), whilst Jones (2004) has suggested that D/deaf learners are still struggling to some extent in accessing higher education. Jones has also suggested that the shared experiences of oppression are amongst the reasons why more and more D/deaf people are accessing higher education. The shared histories and language have enabled D/deaf people to exert 'their rights to equality to educational and vocational opportunity' (Jones 2004:28). The Dearing Report, *Higher Education in the Learning Society*, echoes a similar sentiment of addressing the under-representation of disabled people within higher education ([www.bbc:281013](http://www.bbc.co.uk/1/health/2004/04/040428_education_disability.shtml)).

Aimhigher projects are one of the initiatives to encourage non-traditional learners to attend university (Hatt, Baxter and Tate 2007). Unfortunately, many D/deaf university learners do not complete their tertiary education. Reasons such as poor teaching methods, a lack of self-determination and lack of access to learning have been cited by Katsiyannis *et al.* (2009).

Internationally, as with other aspects of education, higher education varies across the globe. Countries such as America, Canada and New Zealand all have higher education institutions which provide outstanding support for their D/deaf learners. Countries such as Australia (McLean *et al.* 2003), Israel (Heiman and Kariv 2004) and a number of Scandinavian countries (www.educationcounts:281013) are also leading the way in actively supporting learners who may have additional support requirements within higher education.

The facilities for supporting D/deaf learners in the United States are often first class (Parker 2001) where there is a strong tradition of legislation, such as the Americans with Disabilities Act (ADA) (1990), and civil rights (Hurst 1999; Parker 1999). Gallaudet University in Washington D.C. is the largest institution worldwide which caters specifically for Deaf, signing learners (www.galladuet:281013) with a university population comprising of 97% D/deaf learners and staff. Conversely, a number of countries have little or no higher education available for their young people and therefore notetaking provision is not on the education agenda.

Until the advent of professional notetakers within higher education, D/deaf learners relied on family/friends or fellow classmates or organisations such as the Community Service Volunteers (CSV) to provide them with a written record of teaching sessions (Parker 1999). However, complications set in where volunteers were not necessarily educated to university level and were therefore disadvantaged in a lecture type

environment, for example, the advanced vocabulary and/or nomenclature which may not be found in the non-graduate population.

Unfortunately, there are significant numbers of D/deaf adults in the UK who are unemployed and/or living in poverty or working in non-skilled jobs. The unemployment rate in the Deaf Community is approximately 13% (www.hearingtimes:041013) compared to 6.4% for the general population (www.bbc:080814). In addition, disabled graduates (including D/deaf people) are 11 times more likely to be employed than non-disabled graduates (www.snowdentrust:140414). This is reinforced by various research findings and government statistics such as 19% of individuals in families with at least one disabled member live in relative income poverty, compared to 15% of individuals in families with no disabled member (www.gov:120414). It is estimated that D/deaf and disabled people are seven times more likely to be unemployed than their non-disabled and non-D/deaf peers (Russell 2002). Consequently, a university education may be one route for disabled and D/deaf people to gain meaningful employment and to be active citizens (National Council on Disability 2004). This sentiment is echoed by the Institute of Public Policy Research who acknowledge we are living in an increasingly professionalised society (www.ippr:300814). In addition, Paterson and Hughes (1999) have suggested that a number of disabled and D/deaf people are 'actively struggling against social oppression and exclusion' (p.598). A university education may be one strategy for D/deaf adults to

break down these barriers. On an institutional level, there is increased emphasis on quality control and auditing. Employing professional support staff such as qualified notetakers, may enhance the reputation of universities which might in turn, attract more D/deaf learners.

As mentioned previously, there appears to be a dearth of information regarding notetakers in higher education, or much evidence of the views of the learners we support. Stinson (2009; 1999); Elliot (2009; 2008); (Lang 2007; 2003; 2002); Osguthorpe (1976; 1967) and Stuckless (1965) have written specifically about notetaking in higher education, but in the American context. A number of studies have incorporated notetakers within larger studies. These include Hinchcliffe (2009; 2008) (online interviewing for participants with social communication difficulties); Fuller, Healey, Bradley and Hall 2004 (incorporating disabled students within an inclusive higher education environment) and Pitt and Curtin (2003) (experiences of disabled students moving from mainstream school into special needs further education). My proposal is that my combining the literature review and background section which also contains anecdotes and my own personal experiences will provide a more holistic picture of the importance of providing D/deaf learners with appropriate support when they opt for a university education.

It is acknowledged that this thesis does not fit the norm of researching D/deaf education to aid and benefit teacher training (Luckner 2004). The whole purpose of this study is to discover how best notetakers can

support D/deaf learners whilst they are at university in the anticipation that the resulting information and guidelines of phase three will benefit the D/deaf university learners in the future. Writing in 1976, Osguthorpe stated how little research has been undertaken on the quality of notes provided by notetakers. Thirty-eight years later, little has changed. However, I am aware of a chapter discussing notetaking from an institutional point of view (McCrea and Turner 2007) and a PhD candidate who is assessing the 'fairness' of notetakers supporting disabled learners within higher education (Roberts 2008) from a United Kingdom perspective.

Written records from teaching environments can be beneficial for D/deaf learners who do not utilise auditory recall of their university education. Notes from a notetaker are often the only permanent record of the teaching session (Osguthorpe 1976) and are vital for exam revision (McCrae and Turner 2007) and completing coursework. However, research conducted by Lang (2002) which analysed 36 questionnaires regarding the provision of transcripts, identified that only 29 actually looked at the notes, although 16 identified new vocabulary and 10 utilised the transcripts to create their own notes. Conversely, providing transcripts rather than summarised notes may *increase* the workload for the recipient due to requiring time and energy to identify the critical points (p.272).

Research conducted by Titsworth (2004) suggests that university learners spend approximately 80% of their timetable in lecture/seminar-type sessions. The Beattie Resources for Inclusiveness in Technology and Education (BRITE 2006) suggests that 'hand-written notes...are a vital record' (p.7); a 'valuable study aid' (Stinson, Elliot, Kelly and Liu 2009:53) whilst the University of Westminster suggests that 'a good set of notes is vital for passing exams' ([www.wmin:281013b](http://www.wmin.ac.uk/281013b)). Therefore, adequate notes are essential for a number of D/deaf undergraduates and postgraduates if they are to succeed in achieving a higher education qualification.

Whilst D/deaf learners may require notetaking support, undergraduates in general tend to have had little or no training in taking notes (Kiewra and Titsworth 2004; Smithies 1983). Dunkel (1989) observed that undergraduates felt under pressure when attempting to listen and notetake at the same time. Notetaking involves the ability to concentrate on salient points, rather than attempting to write verbatim ([www.UCC:020906](http://www.UCC.edu/020906): Smithies 1983). This is summed up by Englert, Mariage, Shankland, Moxley, Courtard, Jocks-Meier, O'Brien, Martin and Chen (2009):

Because the student has not represented the information in any succinct or organised fashion, her notes were ineffective for studying and learning (p.197).

Research undertaken by Kiewra and Titsworth (2004) investigated notetaking skills, and also the lack of skills, amongst undergraduates. They estimated that an average undergraduate, in a predominantly aural lecture, manages to note down approximately 40% of the content, this is compared to qualified notetakers who can accurately record in excess of 75% of the content (Thorley 2008). In addition, work undertaken by Langer (2006) suggested D/deaf learners only receive approximately 40% of the information given in a classroom compared to the 99% heard by their hearing classmates. Notes utilising defining difficult/new vocabulary, using white space effectively with pertinent illustrations and diagrams (Osguthorpe 1976) are the most useful and accessible for D/deaf learners.

Research conducted by Hidi and Klaiman (1983) discovered that school students attempted to make verbatim notes, whilst university learners tended to produce strategic notes. These discoveries continue to be contentious, as much research questions the ability of undergraduates to have effective notetaking skills (www.drc:100806). However, a meta-analysis of whether or not undergraduates benefitted from interventions to improve notetaking skills was insignificant and made hardly any difference to the resulting notes (Kobayashi 2006). One of the online recommendations and guidelines I viewed suggests that 'like all techniques, those for listening and notetaking improve with practice' (www.drc:100813). Consequently, organisations and educationalists

acknowledge that notetaking adequately is a skill which needs to be practiced and honed.

However, it is also suggested that volunteer students who provide a copy of their own notes to give to a fellow classmate who is D/deaf, improve the standard of their notes almost automatically (www.sa:281013).

Whilst the student notetaker may benefit from providing notes for fellow Deaf students, research conducted by Stuckless (1969) discovered that 35% of the Deaf students questioned were not satisfied by the standard of notes. This is echoed in research conducted by Osguthorpe (1976) whereby D/deaf learners who were supported by volunteer student notetakers were not confident that the notes they were given contained all of the required information. Utilising the services of postgraduate students may be one effective practice that higher education institutions can adopt. However, previous research conducted in 2008 stated at least two of my notetaking colleagues disagree about using trained postgraduates:

N2 support staff who are students whether BA, MA, or PHD I do NOT regard as professionals, unless they happen to be notetaker qualified. They may be extremely skilled but it is a money-earner on the side.

N10 I don't consider a non-qualified notetaker to be a professional, i.e. a postgraduate with no notetaking qualification who is selected for the job purely on the basis of having undergraduate experience of the subject (Thorley 2008:4).

2.6.4 Why do D/deaf learners require notetaking support?

The Declaration of Helsinki Salamanca Statement (1994) (www.unesco:281013) states that access to education is a fundamental human right. Consequently, excluding groups of people can no longer be justified. In addition, Shah, Travers and Arnold (2004) have suggested educational experience influences one's status in later life. These two examples illustrate why D/deaf people should be able to access higher education if they wish to do so. Providing notetakers is just one of the strategies involved to ensure D/deaf learners are able to access the same knowledge their hearing peers can access. The following statements are a succinct summary of why notetaking support is so important for a number of D/deaf learners:

Since notes are extremely valuable – in some instances they are the only means of access for deaf and hard-of-hearing students – it is vital that they be of the highest quality (www.rit:281013b).

Compiling useful notes remain a key task in most learning environments (www.brite:281013b).

Students with disabilities who cannot produce their own notes are disadvantaged in lectures, seminars and tutorials. With a professionally trained notetaker, taking comprehensive and intelligent notes, students gain equal access to all learning information and materials (www.wmin:281013b).

It has been said having an interpreter guarantees equal access to the classroom but having a notetaker guarantees equal access to the information from the class (www.pepnet:2011).

Notetakers can be found in a variety of educational environments. The most obvious places are lectures, seminars and tutorials. However, the

classroom is not the only location where teaching and learning occurs. Notetakers also work in science laboratories and accompany learners on field trips. Field trips are probably the most problematic session in which to provide notes. The majority of notetaking provision on field trips comprises of manual notes using pen and paper. Not only is it particularly difficult to walk and write (www.rit:151106), the notetaker also has to contend with extreme terrain, unpredictable weather and variable temperatures. The Beattie Resources for Inclusiveness in Technology and Education (BRITE) states the following:

Differences in settings/learning environments and students' requirements will influence the type of notetaking provision that is most appropriate (www.brite:281013).

Consequently, BRITE acknowledges that a 'one-size-fits-all' approach is not suitable when providing notetaking support. As a number of D/deaf learners will not be able to hear the full extent of what the lecturing staff are saying, they are often at a disadvantage. Whilst many learners have difficulty in listening and making notes simultaneously (Fuller *et al.* 2004; Weedon and Fuller 2004), many D/deaf learners can only access the majority of the information given via a specialised support person – a notetaker. Notetakers provide a written record of lectures, seminars, laboratories and field trips for D/deaf learners who cannot write their own notes for a variety of reasons. As a respondent in research conducted by Fuller *et al.* (2004) stated:

Note taking can be difficult as I can be quite slow. Copying information from the board before it is removed... (I) look up and it's gone! (p.459).

As the epigraph at the beginning of the chapter one, states, 'students learn from the notes...not from the lecture itself' (Mole and Peacock 2002). They may be watching interpreters or CSWs, an electronic monitor/whiteboard staffed by an electronic notetaker; or watching a lipspeaker or the tutor (McCrea and Turner 2007). Consequently, they would have difficulty watching and writing simultaneously. This is exacerbated further if the interpreter/CSW is using British Sign Language (BSL) rather than Sign Supported English (SSE); or Sign Exact English (SEE) (Osguthorpe 1976). Regardless of the existence of an additional communication professional, providing notes 'there and then' can also enable the D/deaf learner to read (in real time) what is being said in a learning environment such as a lecture or seminar (Stinson, Eisenberg, Horn, Larson, Levitt and Ross 1999) whilst McCrea and Turner (2007) posit the role of a notetaker should be 'the absolute minimum provision towards achieving equality' (p.103). The above information is supported by the following quote:

Having someone to take notes for me was very handy as I write slowly and not entirely legibly. And I could understand what they had written which always helps – Darth Morphi (Thorley 2007).

A notetaker may ease the situation by providing comprehensive notes which enable the learner to concentrate on the information being

conveyed via an interpreter or by lip-reading. One of the skills at which qualified notetakers are adept is to convey emphasis (Nichols 2000). Notetakers have this ability to draw attention to points in their notes. Various methods, such as highlighting, underlining (Nichols 2000:7) or placing a specific nomenclature next to a key word enables the D/deaf learner to locate the most important information at a glance. As with the majority of notetaking skills, this practice develops over time and is one indicator to ascertain if the notes have been supplied by a trained person rather than a fellow undergraduate or similar. Jarvis, Iantaffi and Sinka (2003) have emphasised the importance of adequate training for support staff which is required to 'provide effective support' (p.217).

Notetakers are often employed in written exam situations, occasionally in tandem with an interpreter/CSW. This is a particularly laborious experience for the D/deaf learner involved. It can also be intimidating if the D/deaf learner is in a room with a notetaker, an interpreter and an invigilator. A number of higher education institutions have attempted to alleviate this problem. Strategies include offering D/deaf learners visual vivas instead (Barnes 2007) that is, of answering their questions in sign language rather than in English. However, the D/deaf learner may be disrupted if the notetaker seeks clarification (Mowe, Barnes and Nicholson 2008). In addition, the D/deaf learner and/or the notetaker maybe uncomfortable with being filmed if an interpreter or CSW is also present. The film is to ensure the interpretation is correct and/or to ensure there is

no collusion between the interpreter/CSW and the learner. There is a disparity here between the different types of communication professionals. Of the eight exams I have scribed for with an interpreter or CSW present, six of them were filmed – if I am by myself (I am also a trained invigilator), I have never been filmed.

2.6.5 Notetakers in the learning environment

Having a notetaker in the class or lecture can be problematic for the D/deaf learners we support, fellow classmates and teaching staff. However, all communication professionals such as notetakers, interpreters and communication support workers (CSWs) tend to work in harmony and I am aware of only a handful of incidents where there has been such a problem. One issue of having a notetaker in the class is that it can affect the social culture of the learning environment. Having a notetaker can create a social barrier between the D/deaf learner and his/her fellow classmates and teaching staff (Schick 2008). It has also been documented that D/deaf students 'may experience difficulty in initiating and nurturing peer support and friendship' (Luckner and Muir 2002:25) if there is a communication professional present. One of the advantages of employing fellow students as notetakers is to remove this element of isolation and possibly be less stigmatising than having a professional working within the group ([www.LINK:111112](#)). Najarian (2008) has further suggested that the learning environment is a community which all identities 'are forged through social interactions'

(p.117). This may result in the D/deaf learner feeling isolated and only being able to connect with the support staff. Luckner and Muir (2002) have suggested 'creating opportunities for students to work together cooperatively' (p.25) may aid interaction between D/deaf learners and their hearing peers. Conversely, D/deaf learners often view inadequate interpreting/conveying information is an 'obstacle to participation' (Schick 2008:8).

As discussed, notetakers have a wide variety of different job titles. We are also known as amanuenses, scribes, language support professionals, language support providers and in more recent years, communication professionals (www.signature:281013). Electronic notetakers are often abbreviated to ENTs to differentiate themselves from manual notetakers. The earliest reference that could be located for this type of notetaking was a journal paper (James and Hammersley 1993) of a study which concluded electronic notetaking, utilising two computers (one for the notetaker to type on and the other for the D/deaf learner to read the screen) was extremely effective and less obtrusive than a manual notetaker or sign language interpreter. Electronic notetaking of this kind is generally referred to as computer-aided notetaking (CAN) (Stover and Pendegraft 2005). The overwhelming majority of notetakers are manual, as they use the traditional pen-and-paper approach to notetaking. In addition to the traditional pen-and-paper approach, a number of hybrid notetakers are evolving.

Electronic notetakers use a traditional laptop and diginotetakers/hybrid notetakers use electronic memo pads or digital pens, such as the Livescribe Echo Smartpen (Westby 2011). Manual notetakers are the type of notetakers most D/deaf learners and teaching staff are familiar with. The manual notetaker tends to use standard paper-and-pen without any complicated electronic equipment. The following table presents a summary of the advantages and disadvantages of conventional manual notetaking:

Table 2.1 – summary of the advantages and disadvantages of conventional manual notetaking

ADVANTAGES	DISADVANTAGES
Standard paper and pens are inexpensive	Clear handwriting must be maintained
Notes can easily be photocopied	Handwritten notes can only be photocopied if black ink is used.
Notetakers are not reliant on technology or power	Paper copies of notes can be easily lost or damaged.
The D/deaf learner has the option of sitting next to the notetaker or elsewhere in the room with their friends.	

Whilst the vast majority of educational notetakers use a traditional pen-and-paper method of notetaking, hybrid notetakers are becoming more prominent as befitting the technological age which we find ourselves in today. Hybrid notetakers have two options:

1. Digital pens and conventional paper – this enables the handwritten notes to be converted into an electronic text document. The more recent pens can use Bluetooth technology in addition to saving documents on a USB device (www.brite:281013).
2. TabletPCs are A4 size memo pad gadgets – the notetaker writes on the screen using a specialist pen/stylus. As with the digital pens, the text can be converted into an electronic text document (www.microsoft:281013).

Possibly due to the advances in such technology as the digipens, there are no research papers and/or published information on the benefits of such technology in supporting D/deaf learners in higher education. Neither is there any mention on the Association of Notetaking Professionals (ANP) website or the Signature website. The use of diginotes is also omitted from the 2014 guidelines for non-manual helpers, the support category which defines support available to learners via the Disabled Students Allowances. Utilising a digital memo pad/tablet or digital pad may be the most advantageous for the D/deaf learners we support (Francis, Stinson and Elliot 2008). No access to electricity or carrying large cases of equipment are required yet the learner/s can have a copy of the notes via a memory stick or email, in addition to the paper notes they are given at the time. Currently, there is little literature available for this method of notetaking as it is such a new endeavour.

Consequently, it is not possible to provide a 'synthesis of established research and first-person experiences' (Brumberg 2008:2) in this particular sub-heading.

However, from personal experience and anecdotal evidence, the following table may be a starting point regarding the advantages and disadvantages of introducing this new form of notetaking support:

Table 2.2 – summary of the advantages and disadvantages of diginotetaking

Advantages of diginotetaking	Disadvantages of diginotetaking
Learners can modify the notes to different fonts/colours/size to suit their individual requirements.	The pens are reliant on batteries.
Manual notetakers can adopt this method but with the benefit of producing electronic notes.	The handwriting software is not 100% accurate.
There are a lack of electronic notetakers.	The handwriting software is not appropriate for some handwriting.
The notes can be utilised by a number of D/deaf learners simultaneously. The individual learner can then modify them to	

suit their needs.	
The learner can take the paper copy with them to a following seminar.	
The digipens are inexpensive compared to laptops and/or predictive text software.	
The digipens are small and therefore easy to transport.	

There has also been a considerable increase in electronic notetakers in recent years. This is possibly as a result of manual notetakers reflecting on how they can improve the services they provide for learners. Changes and improvements such as this increase in electronic notetakers are fundamental in all professions (Smith 2005; Eraut 2000) to avoid complacency and to develop new practices. Electronic notetakers and computer assisted notetaking (CAN) ([www.rit:281013](http://www.rit.ac.uk/281013)) are basically the same. Both types involve using a standard laptop or Netbook, and in conjunction with specialised word prediction software. The aim is to 'provide a live typed transcript of a lecture, seminar or tutorial' ([www.bris:281013](http://www.bris.ac.uk/281013)). It is difficult to ascertain how many qualified notetakers there are working in higher education as there are different examining bodies and a number of higher education institutions (Brunel and UCLan, for example) have devised and deliver their own notetaker

training. The following table provides a summary of the advantages and disadvantages of electronic notetaking:

Table 2.3 – summary of the advantages and disadvantages of electronic notetaking

ADVANTAGES	DISADVANTAGES
If used in conjunction with a monitor, more than one D/deaf learner can be supported at one time	Relies on access to electricity and/or batteries.
The notes can be stored on a disk or USB	Not suitable for different learning environments, especially field trips.
Electronic text can be converted into Braille using translation software.	D/deaf learners require a high level of English to follow the notes.
The learner can modify the notes to suit their own preferences, e.g. changing the font of the text or the background colour.	If the electronic notetaker is not using a monitor, the D/deaf learner has to sit next to or close to the notetaker.
Notetakers can pre-programme their laptop with jargon and/or specific vocabulary.	It is almost impossible to insert diagrams and equations into the text.
The D/deaf learner can follow the teaching session in real time – this enables them to ask questions or contribute their thoughts when requested.	Access to electricity and/or batteries are required for the equipment.
	Considerably more expensive than manual notetaking.
	The notetaker requires a table and chair close to the front of the room.

Hybrid or diginotetakers are just the latest manifestation of notetakers within higher education. All of the above methods of notetaking have one major advantage – the D/deaf learner, or learners, have the opportunity of following the session in ‘real time’ (www.brite:281013c). This is

particularly useful in a seminar situation where learners are expected to contribute at some point. These mechanisms are therefore imperative for D/deaf learners who want to be active contributors rather than passive observers (Mace 2002).

Palantypists and stenographers are similar to electronic notetakers but are significantly different in the type of notes they provide. Rather than precise information, stenographers and/or palantypists provide a virtually *verbatim* transcript. This is achieved by typing phonetically and the words are then displayed on a monitor at the front of the classroom (www.brite:151106). This enables the D/deaf learners to follow the session in 'real time' but they can also benefit from a copy of the notes saved onto a memory stick or similar. Speech-to-text reporters (STTRs) also provide verbatim notes but utilising a laptop with specialist software (Stinson *et al* 2009; Stinson *et al* 1999). However, the overwhelming skill and efficiency of a notetaker lies in their ability to précis relevant information rather than write everything down. Too much information can intimidate the learner who may have difficulty in locating the salient information from all of the information given, possibly resulting in cognitive overload (van Gog, Kester, Nievelstein, Giesbers and Paas 2009; Merriënboer and Sweller 2005). Whilst the Disabled Students' Allowance (DSA) can provide up to £22,000 per year for human support this is totally inadequate to pay for palantypists and stenographers. In the UK, stenographers, palantypists and speech-to-text operators are not

classified as notetakers and have their own professional bodies and national occupational standards. In the USA, this type of notetaking support is classed as Computer Aided Realtime Translation (CART) (www.rit.edu/281013c). However, this is also the most expensive form of notetaking support. This is because specialist hardware and software are required. The hourly rate is also high due to the intense training required to be a qualified stenographer and/or palantypist.

As previously discussed, there are generally two types of notes available for D/deaf learners – notes which only contain relevant information; and verbatim notes. Verbatim notes tend to be unwanted by D/deaf learners themselves due to the amount of time required to read through everything to locate the important information (Trionfo 2000). Utilising the Cornell system and/or the two column format of notetaking is an intelligent and systematic mode of notetaking. In addition to synthesising the notes into small, manageable chunks, the Cornell system has a set layout which enables the D/deaf learner being supported to add their own comments once they have the notes at the end of the teaching session (www.wmin.edu.au/281013c). As an addition to the resulting *NOTE Information and Guidelines*, an alternative template has been devised – *NOTE Template* – which provides white space for the D/deaf learner to annotate their notes provided by a notetaker. The *NOTE* template is a more linear model than the Cornell which learners maybe more comfortable with. Encouraging D/deaf learners to add to the notes provided also assists

them in recall and encoding the information (Kobayashi 2006; Titsworth 2004; Dunkel 1989; Kiewra and Frank 1989).

Until the early 1990s, professional notetakers in higher education were very rare. This meant that D/deaf learners relied on family, friends or classmates. Traditionally, professional notetakers working within higher education tended to be employed directly by the university, via an agency or had been selected by the D/deaf learner directly. This is no longer the case as various options have appeared over recent years. The majority of notes are taken by fellow learners, some of whom are voluntary and some are paid. However, there is a growing trend for institutions to use agency staff for a variety of different reasons. I have also looked at notetaking services in other countries to see the various options abroad.

Since the early 1990s, universities have had the option of employing and/or recruiting professional notetakers. However, I have witnessed a reverse trend of returning to the original stance of using undergraduates and postgraduates to act as notetakers in recent years. Whilst the majority may be able to provide salient notes, they tend not have the knowledge or intensive training undertaken by qualified notetakers. A number of agencies provide trained notetakers. I do not use the term professional or qualified as there are a number of agencies which have scant training and which do not require that the 'notetakers' have a degree themselves. However, being a notetaker from an agency rather

than a contracted notetaker is not always negative. A fellow notetaker recently made the following observation:

I think it is a real disservice to fellow note takers to make a sweeping statement that they were "less good" because "they were either agency workers on low-pay with little training, or students on low pay with little training". There are Agency workers out there that are trained, professional, offer real assistance and go out of their way to assist the students they work with. Like any job it is about the individual (www.limpingchicken.030814).

The institution where I did my notetaker training only trains and employs notetakers who are graduates. However, I think it is commendable that a number of universities have devised specific training to ensure their notetakers have 'rigorous development and assessment of technical skill' such as those at the University of Bristol (Thomas 2005).

On an international note, various countries have a mixture of approaches to providing notetaking support for D/deaf university learners. In the United States and Canada various universities refuse to pay (for ethical reasons) learners who act as a scribe for fellow classmates (www.my:281013). Rather than paying the notetaking learners, they are encouraged to add this role to their *curriculum vitae*. (www.rit:281013; www.dso:281013). I have discovered one institution which would prefer to ask classmates to provide lecture notes voluntarily but who are willing to pay for a professional notetaker if there are no volunteers. Their rationale is that the funds 'may be better allocated on the provision of other accommodations' (www.my:281013). I have also discovered at

least one university which has a mixture of professional and volunteer notetakers (www.ncod:281013). It would have been interesting to find out how this system worked as it may benefit institutions which lack professional notetakers, such as those in rural areas. Jacklin and Robinson (2007) have suggested that both availability and accessibility of support are two major concerns for learners. A recent debate has ensued on one of the electronic forums of which I am a member. Colleagues in Ireland and Norway have been discussing the use of fellow students rather than qualified notetakers. They conclude that utilising other students has been a success – it is less expensive, the notes are of better quality than an external, qualified notetaker and the learner providing the notes puts in an extra effort which enables their own learning and revision (www.LINK:11112). One university in Canada tends to provide volunteer notetakers from within the D/deaf learner's class. Whilst this in itself is debateable, an American university has stated 'the volunteer notetaker has no more obligation than any friend sharing notes' (www.my.westminter:280514). However, these students have the option to provide their own notetaking services via posting their notes on the university intranet (www.sa:281013). This is a positive step forward as this gives D/deaf learners the autonomy to select a notetaker of their choosing rather than be assigned a random notetaker.

2.6.6 The role of Information and Guidelines in supporting the D/deaf learner, the notetaker, the lecturer and classmates.

Whilst different universities and training providers provide information and guidelines as part of their notetaker training programmes, there are currently no national guidelines for notetaking in higher education. As the information and guidelines have been compiled in collaboration with a number of D/deaf university learners, the results of this study could empower both existing and potential D/deaf learners to access the notetaking support they are entitled to. The resulting information and guidelines will be freely available to anyone with an interest in notetaking in higher education. The co-researchers, in both the primary and secondary stages, will be given a copy of the resulting information and guidelines – *Notetaking Optimising Thorley Effectiveness (NOTE) Information and Guidelines (IaG)* in appreciation for their contribution. For simplicity's sake, the acronym *NOTE-IaG* will be utilised to describe the end product of the two data collection phases. The *NOTE-IaG* is divided into four separate themes:

1. Information and guidelines for D/deaf learners working with a notetaker.
2. Information and guidelines for notetakers supporting a D/deaf learner.
3. Information and guidelines for lecturing staff.

4. Information and guidelines for learners who have a D/deaf learner in their class being supported by a notetaker.

2.6.6.1 Information and guidelines for D/deaf learners who are supported by notetakers: the importance of consistency

One of the overriding issues regarding notetaking support is consistency.

This tends to happen when the D/deaf learner is supported by another learner or utilises agencies and/or freelancer notetakers. Guidelines from a university in the south of England states the following:

Using the same notetaker in a given time slot throughout the year provides the student with a constant input (www.wmin:281013c).

I have not met, nor read any account where the D/deaf learner is happy to have a variety of different notetakers. One of the pilot studies for this study found that D/deaf learners prefer just one or two notetakers (Thorley 2008). Having two regular notetakers avoids the learner developing an improper dependency and promotes self-reliance and a sense of independence (www.wmin:281013c). The scant research that has been undertaken on notetaking support in higher education has endorsed this sentiment. However, this is often an institutional policy which D/deaf learners have little power and/or control in terms of changing. Research conducted by one UK university found that the training regime for student notetakers varied between 'a thirty minute chat to several hours of interviews and notetaking practice' (www.wmin:281013).

2.6.6.2 Information and guidelines for notetakers supporting a D/deaf learner: ethical issues

This is a particular tricky situation for all of the parties involved. There are a number of potential ethical implications when writing down notes for a third party. Issues surrounding filtering out information, acknowledging different languages, confidentiality, codes of conduct and practice are all relevant for notetakers who work with D/deaf learners. This issue of 'verbal hygiene' mentioned previously is one of the ethical situations notetakers need to be aware of. Basically, the notetaker decides which information is written down and which is filtered out, which Mace (2002) describes as 'a selected version of the spoken words' (p.179). However, notetakers deciding which information to write down and which information to ignore could be viewed as censoring information (Thorley 2007a). It is acknowledged that we do not want the learners we support to 'get lost in a barrage of minor points' ([www.ucc:281013](http://www.ucc.edu.au/281013); Mace 2002), yet we have to make a judgement as to what information is important and which information is irrelevant. The issue of verbal hygiene is also pertinent to interpreters as they also filter out unnecessary information to ensure the learner understands what is being taught (Schick 2008).

It is important to ascertain whether there are structural cues and/or signposts ([www.unsw:281013](http://www.unsw.edu.au/281013)). Research conducted by Titsworth (2004) indicates that college students produced far more accurate notes if they were given 'prominent organisational cues' (p. 314). Without these cues, it is particularly problematic when the notetaker has a different academic

background to the subject being studied by the D/deaf learner they are supporting (www.equality:281013). This sentiment is echoed by a learner in one of my previous research papers:

A problem I found was that, because they weren't studying my subjects, they didn't know what was appropriate amount to note. Some notes takers literally wrote out the entire lecture which was far too much to read through when looking for a simple point. Others wrote too little and didn't include the important bits (Thorley 2007).

Respecting different forms of communication is particularly relevant to notetakers who support D/deaf learners. We acknowledge and respect that some learners will prefer British Sign Language (BSL) or Sign Supported English (SSE) as their first language. This also ensures that notetakers providing a service (beneficence) avoid being paternalistic. This is summarised by one of my notetaking colleagues:

N4 notetakers follow strict codes of conduct for professional behaviour, student confidentiality, equal opportunities and respect for different methods of communication (Thorley 2008).

Confidentiality, trust and codes of practice and conduct can be issues (Frowe 2005; Brien 1998), especially for people who are acting as notetakers without any substantial training. Professional training is imperative for the D/deaf learner. How else would a learner 'be able to trust that the scribe at my side will write what I ask?' (Mace 2002:35). A D/deaf student offers the following comment:

I am severely/profoundly deaf and I could simply not live without notetakers in lectures and meetings (SB:300708).

The Royal National Institute for Deaf People (RNID since renamed Action on Hearing Loss - AOHL) has categorically stated that D/deaf learners should always have a trained notetaker and should not be expected to use notes that fellow learners have taken (2003). It is imperative to understand when to keep information to yourself or when to notify another person if there are issues affecting the D/deaf learner being supported (www.ncsu:281013). At this juncture, it may be useful to provide a brief guide of what notetakers do not do:

- We do not discipline the learners we support.
- We do not cover for teaching staff when they have left the room.
- We do not join in seminar groups to make up the numbers.
- We do not attend teaching sessions instead of the D/deaf learner.
- We are not part of the teaching fraternity (www.rit:281013d; www.ncsu:281013; www.equality:281013).

2.6.6.3 Information and Guidelines for Lecturing Staff: How can lecturers assist D/deaf learners and notetakers in their teaching sessions?

As mentioned in the compulsory education section of the literature review, the attitudes of lecturing staff towards D/deaf learners are fundamental to the learning environment (Avramidis and Norwich 2002; Soodak, Podell and Lehman 1998). Whilst Woodcock, Rohan and Campbell have suggested that 'attitude is indisputably a (if not *the*) major barrier' facing D/deaf learners (2007:369). Research conducted by Foster, Long and Snell (1999) acknowledged that a number of teaching

staff did not make any modifications to their lectures if there were D/deaf learners present, as this was seen as the responsibility of the communication professionals. The grey literature was particularly useful in enabling me to locate different guidelines from a global perspective. Numerous universities, mostly from the United States, publish notetaking guidelines online which are freely available to the public. These electronic references are listed in the reference section of the thesis. There are a few simple steps which lecturers can undertake to enable the notetaker to be able to note down all the relevant information conveyed in a teaching session, exemplified by the following:

Provide the notetaker with a copy of the lecture notes/power point presentation and/or handouts **before** the session begins.

Do not ask the notetaker questions during the teaching sessions.

If you can see that the notetaker is struggling to keep up with your delivery, it is likely the majority of the non-D/deaf learners are also struggling.

Provide notetakers with a vocabulary list wherever possible.

Starting and finishing the session on time – notetakers often support more than one learner and may be required elsewhere for the next session. Regardless of whether or not they are continuing supporting the same learner, two people (the learner and the notetaker) arriving late to a session leaves the learner at a disadvantage from missing information, and causes disruption to their classmates. This is exacerbated if they are also accompanied by CSWs and/or interpreter/s. This could also

potentially cause embarrassment to the D/deaf learner as it may draw more unwanted attention to them.

Teaching immediacy (the delivery and pace of the content) can be fundamental as to whether a member of teaching staff is inclusive. Research conducted by Titsworth (2004) concluded that lecturers with high levels of immediacy resulted in the learners becoming 'so involved with the teacher's delivery that they fail to attend to important concepts being discussed' (p. 121). In addition, research conducted by Foster, Long and Snell (1999) stated how hearing learners benefited from having a Deaf learner in their midst as 'the teacher moves slower in presenting the material' (p.229). Wandering up and down prevents lip-readers being able to lip-read what is being said (www.bris:281013) but it is generally the case that tutors tend to speak slower and louder when imparting the most important information (www.unsw:281013). One of the tactics adopted by a professor at the Rochester Technical Institute for the Deaf (RIT) is to sip coffee throughout his teaching sessions which enables D/deaf learners and their support staff to keep up with the delivery (www.rit:281013c), whilst Foster *et al* (1999) have suggested pausing for five seconds after answering a question to ensure D/deaf learners have the time, and opportunity to respond. Teaching staff can also assist both the D/deaf learners and the notetakers by utilising an interactive whiteboard (www.brite:281013) as this enables an ongoing visible representation of what is being discussed. As the overwhelming majority of D/deaf learners

are visual learners it is of 'paramount importance that the information received in lectures...is accessible to students' (Jones 2004:172). One strategy for ensuring D/deaf learners are receiving the same information as their hearing peers is discipline during group discussions (Jarvis, Iantaffi and Sinka 2003). Lecturing staff need to lay down strict rules and regulations when learners are working in small groups, such as enforcing the rule of only one learner speaking at any one time (www.rit.edu/281013d; Russell 2008). This will enable both the D/deaf learner and the notetaker to follow what is being said and by whom.

Whilst the focus of this study is the examination of the experiences of D/deaf learners, there is a popular analogy regarding disabled and D/deaf learners to the canary in the mine (Jacklin and Robinson 2007; O'Rourke 1999). This analogy suggests that, although teaching staff adopt various strategies to ensure they have an inclusive learning environment, these strategies tend to benefit all learners (Katsiyannis *et al.* 2009). Strategies which involve disabled learners are the most successful if disabled learners are involved in development and policy making. Universal design is one such philosophy which favours inclusion (www.trac.org/140414).

2.6.6.4 Information and guidelines for learners who have a D/deaf learner in their class being supported by a notetaker : criticisms of notetakers and notetaking

As a result of there being virtually no studies that focus on notetaking support for D/deaf learners in higher education, there is little literature on

the negative aspects. Support staff in general can be viewed as 'intrusive' as this may impact on how D/deaf learners interact with their hearing peers (Jarvis, Iantaffi and Sinka 2003). However, notetakers for D/deaf learners will continue to be required until universities adopt more inclusive teaching practices which would negate the need for notetakers and other communication professionals. The case for professionals is not supported by comments by Power, Petrie, Swallow and Sannia (2009) who state:

these professionals will have expertise in a particular skill, such as sign language interpretation. However, in other cases, such as readers and notetakers, no prior skills are required (p.5).

This statement is questionable when considering the issues which have been raised so far in this literature review. It can be suggested that there are few academics who could write the same standard of notes from an oral lecture in a discipline they are not familiar with.

2.7 Summary

This section of the literature review has provided a holistic approach in understanding the need to provide D/deaf university learners with appropriate support when required. It is not enough to provide 'adequate' notes; this could be viewed as discriminatory as the D/deaf learner maybe at a disadvantage compared to their hearing peers. As noted, there are a variety of different methods and systems of notetaking available in higher education, both in the UK and internationally. Manual,

electronic and diginotetaking exist to enable D/deaf learners to access the academic curriculum. I propose that all notetakers within higher education should be a university graduate themselves and possess a nationally recognised notetaking qualification.

As the numbers of D/deaf learners continues to increase, it is imperative that such learners are supported appropriately to enable them fair access. As the majority of D/deaf learners are likely to accept the support they are offered, regardless of the quality, the increase in university fees may propel them to speak out and ensure the money they have invested in their higher education is well spent.

The scant literature on this subject has raised the notion of how complex notetaking support can be and how a number of D/deaf learners may not receiving the support they are entitled to. Collaborating with D/deaf learners to produce the *NOTE-IaG* may enable D/deaf learners in the future to access their learning on a similar level to their non-D/deaf peers.

CHAPTER THREE - PHASE ONE: METHODOLOGY AND METHOD

In 2005, I changed the name of the emancipatory paradigm for transformative because of a desire to emphasise the agency role of the people involved in the research. Rather than being emancipated, we work together for personal and social transformation (Mertens 2009:2).

Careful consideration was given to which methods and methodology would be most appropriate for this particular study. Whilst I had in mind an electronic questionnaire at the onset, consultation with D\deaf learners was required to ensure the correct questions were being asked and as a consequence, data collection was divided into two phases: Phase One comprised of an electronic forum which involved myself and nine primary co-researchers which provided information for Phase Two in which thirty D/deaf university learners and recent graduates submitted a completed questionnaire via SmartSurvey.

A transformative framework (Mertens 2009), underpinned by phenomenology, was utilised throughout the study as it was acknowledged that the D\deaf learners were the experts on notetaking support for D\deaf learners, rather than the notetakers providing the support, a stance supported by Mertens (2009) who states:

The transformative paradigm emerged in response to individuals who have been pushed to the societal margins throughout history and who are finding a means to bring their voices into the world of research (p.14).

As a professional notetaker working within higher education since 1998, I have a comprehensive knowledge and understanding of how to do my work competently. Throughout the entire study I have needed to

acknowledge, and be aware of, my own subjectivity and my own emic perspective in this thesis. This could be deemed as cultural competence (Mertens 2012) where although I have extensive experience which will enable me to build a rapport with the co-researchers, I must acknowledge my own potential bias and acknowledge that the experiences of the D/deaf learners differ to mine, in that, I do *not* have the experience of being supported by a notetaker during my tertiary education; neither am I Deaf or hard of hearing. The discovery of the transformative framework was the first of two epiphanies which enabled me to complete this study.

As stated, there is a lack of research regarding D/deaf learners and their experiences of being supported by a notetaker. To address this, mixed methods were used to 'collect more varied data and strengthen the validity of the final conclusions' (Butin 2010:76). The experiences of D/deaf learners who have been supported at some stage of their university education by notetakers were sought. A transformative framework was adopted throughout the study as it was the *experiences* of the D/deaf learners who worked with me during this stage of the research which was the key by offering the potential of rich and insightful data. It is often the case that so-called 'best practice' has not been devised by the people affected, in this case D/deaf learners, which is another justification for implementing an evaluative design based on the principles of critical theory (Butin 2010). The co-researchers who collaborated with me on the forum are acknowledged as primary co-researchers to differentiate

between the two cohorts of D/deaf learners who contributed their time and effort in assisting with this research. The nomenclature of PCR is used throughout the rest of the study to depict the primary co-researchers. If the PCR is followed immediately by a number, this is to identify which PCR I am referring to. Therefore, the PCRs are only identified by the abbreviation PCR1, PCR2, etc. to ensure anonymity is preserved. In addition, the nomenclature MT depicts my own contributions as it was important for me to gain rapport with the primary co-researchers (Mertens 2010).

In addition to selecting an appropriate methodology and methods, the study was informed by BERA (2011) in terms of ethical guidance and approval by the University Research Ethics Committee (UREC) and discussed further in 3.1. Anonymity was assured to ensure that I was unable to identify individual learners or the university where they were studying. I also addressed the issues of informed consent, co-researcher vulnerability, research fatigue, coercion and alexithymia which may have caused distress. One of the mechanisms I introduced to minimise any discomfort was to have a set of guidelines - Netiquette (network etiquette) Agreement (Appendix 1) - which all of the PCRs had to read and agree to. I also provided suggestions of third parties who could assist should any of the co-researchers find the study to be distressing in any way.

The recruitment of the primary co-researchers has also been explained, as have the reasons for opting for the sample size I selected. The forum is the first phase of data collection for this study, which fed into and contributed to the second phase. I needed to find an approach which would suit the co-researchers rather than expecting the D/deaf learners to take part in a data collection method which suited me. After much consideration, I selected an electronic forum to be used for the first phase. Utilising the intranet of the university where I am studying my doctorate enabled me to set up a virtual focus group where the experiences of the PCRs could be explored and discussed. I have also addressed the issue of further study as this study had a number of limitations which may have been rectified if I had the opportunity of receiving funding to carry out this research.

3.1 A transformative framework:

As discussed in the literature review, there is a lack of research regarding the participation of D/deaf learners within higher education (NAO 2008). It is therefore critical that D/deaf learners are given a 'voice' when conducting research with this specific cohort of learners (Mertens 2012; 2009; 2008; 2003). Involving D/deaf learners throughout the study has enabled me to consult a number of D/deaf university learners as experts (Arthur and Nazroo 2003; Ritchie 2003).

Transformative studies are couched in the critical theory perspective as posited by the Frankfurt School which questioned practices and policies, mostly developed by 'rich, white men (Butin 2010:61). Basing the

research on a critical theory perspective has enabled me to evaluate a discrete group – D/deaf university learners – who have often been neglected by such practices and policies. A transformative stance does not adopt a ‘blame the victim’ mentality for people who have been discriminated against; neither does it suggest that the communities we research are incapable of effecting change themselves (Mertens 2009). I viewed my own role in this thesis as a friendly ally (Napier, McKee and Goswell 2010) during the first phase to nurture a sense of community on the forum, and that of a reflective practitioner through the remainder of the study. I envisage the role of a reflective activist to ensure the *IaG* is available to the four cohorts of people the guidelines are intended for once the study has been completed and approved. Critical theory principles are appropriate for studies such as these where traditional disciplines are as relevant as new and emerging disciplines (Bronner and Kellner 1989) such as Deaf Education Studies (DES) and Disability Studies (DS).

A transformative framework (Mertens 2009; Holmes and Harris 2009; Mertens and McLaughlin 2004) was selected as a suitable culturally sensitive research approach (King 2005) which enabled the co-researchers to become involved in the research design and subsequent questionnaire. Emphasising the importance of collaborating with D/deaf learners is particularly relevant for this study as I am neither Deaf or hard of hearing. This is exemplified by the mantra *nothing about us without us*

(Heath 2008; Oliver and Barnes 2008; Charlton 2000) which is fundamental to regarding research participants as equals rather than the prevailing 'us and them' mentality which is often found in more traditional educational and social science studies. This is unlike recent research undertaken by Student Finance England (SFE) (responsible for providing the Disabled Students' Allowances – DSA) who are changing the non-medical helper (notetakers currently fall under this heading) aspects of provision. SFE consulted various practitioners and providers, including myself. Only one learner was the recipient of notetaking support whilst he was at university. However, this learner has a mobility difficulty rather than being Deaf or hard of hearing. As a consequence, the information collected by the researchers engaged by SFE did not consult any D/deaf learners on the future roles and responsibilities of the notetakers employed within higher education. As an aside, the initial new non-medical helper guidelines did not include CSWs who are equally as important for D/deaf learners.

Transformative approaches have been utilised in studies other than D/deaf university learners. King (2005) has written on issues regarding education and race; Hall (2005) has suggested that transformative research is a form of story-telling, where 'as a people we can recognise in that truth' (p.344), whilst Creswell, Plano Clark, Gutmann and Hanson (2003) have suggested the ultimate goal of inquiry is to advocate change, regardless of the area of inquiry.

3.2 Phenomenological underpinning

As stated in the introduction, phenomenology was selected as the most relevant and practical paradigm to research this subject as phenomenology is fundamentally concerned with individuals' personal experiences and attitudes. Both Hurst and Oliver have stated how D/deaf and disabled learners themselves have largely been ignored by the research process (Holloway 2001), whilst Pitt and Curtin (2004) suggest that ignoring the views of these learners contribute to the continual oppression of disabled students (p.17). Barnes, Mercer and Shakespeare (1999) state:

...there should be a focus on exploring the experience of disability at the micro level, with particular reference to the attitudes and feelings of the individual with an impairment (p.43).

Phenomenology is derived from the words *phainomenon* (to appear) and *logos* (reason) with an emphasis on the 'domain of experiences (Pivčević 1970:13). Phenomenology is a relatively new research paradigm in the sociology of education (Townley and Middleton 1986) which is based on a philosophical inquiry developed by the German philosopher Edmund Husserl (Cornett-DeVito and Worley, 2005; Delanty and Strydom 2003; Creswell 1999). Husserl did not dispute the importance of the external world, but placed emphasis on the 'phenomenological analysis of actual experience' (Pivčević 1970:19) and which sees behaviour as determined by the phenomena of experience (Cohen, Manion and Morrison 2000).

Consciousness and the lived experience (lifeworlds) are fundamental to phenomenological approaches. Paterson and Hughes (1999) suggest:

....paternalistic policies and disablist institutions colonise disabled peoples' lifeworlds (p.599).

As phenomenology is concerned with the worldview of the people involved in the research (Whitehead 2002) and questions taken-for-granted assumptions of everyday life (Cohen *et al* 2000) , phenomenology was selected to ascertain the understandings of D/deaf learners' experiences of being supported by a notetaker within a 'hearing university' (Komesaroff 2005:389) which is dominated by taken-for-granted assumptions. Phenomenological research often has three stages:

1. Description – gathering *capta* (the conscious experience) (Phase One forum).
2. Reduction – reviewing the *capta* to gather themes (Phase Two questionnaire).
3. Interpretation – exploring the themes (findings and discussion) (Cornett-DeVito and Worley 2005; Bojner Horwitz, Theorell and Anderberg 2003).

Thus, the term co-researchers is used throughout this study as I have acknowledged that the D/deaf learners who participated are the authorities, rather than myself who has no experience of being supported

by a notetaker at any stage throughout my university education. The data collection methods enabled the co-researchers to express their views in an egalitarian manner, thus resulting in authentic collaboration (Mertens 2009:88). By utilising this description for the co-researchers, both myself and the readers of this research are reminded that the co-researchers are regarded as experts, and not as passive participants (Mertens 2009:103). The issue of involving the people who are the focus of the research at the design stage is also fundamental for a transformative approach (Mertens 2008; King 2005). The *etic* perspectives of the co-researchers are fundamental throughout this research (Snape and Spencer 2003).

Consequently, the D/deaf learners who contributed to the study were regarded uniquely as co-researchers because:

- I regarded the co-researchers as the experts in this research area;
- The primary co-researchers were involved in the design process;
- The study was an authentic collaboration;
- I situated myself as a friendly ally, rather than held assumptions about the limitations of the individuals involved.

The following statement exemplifies my intended approach:

Collaboration and consultation are best viewed as systematic and dynamic processes that are based on mutually defined problems and goals (Friend and Cook 2000:14).

3.3 Ethical issues

I was required to submit substantial paperwork to gain permission from the university where I am studying my Doctorate in Education (Ed.D) to embark on this study. In addition to gaining approval from the Research Degrees Committee (RDC), the University Research Ethics Committee (UREC) required a thirty page document to be completed (a copy can be found in Appendix 2). The UREC document establishes that the research proposal has considered the ethical implications and possibilities in a study such as this. The main purpose of ethical approval was to determine that I had addressed the wellbeing of the co-researchers, both physically and psychologically (Bryman 2004; Creswell 2003). The paperwork for the RDC and UREC had to be completed and permission given before I could begin recruiting the co-researchers and the subsequent data collection and analysis.

Anonymity of the co-researchers and the institutions where they are studying is of paramount importance due to the limited number of D/deaf learners studying at university who utilise notetaking support. To ensure I remained ignorant to the identity of the co-researchers, a third party was available to provide the guest log-ins required to access the forum. The third party was my ICT advisor throughout the entire study and was fundamental in ensuring the forum ran smoothly and was responsible for enabling the co-researchers to access and contribute to the forum discussion. She also ensured the Netiquette Agreement was understood, and adhered to throughout the discussions. Only one PCR was requested

to remove a comment as she revealed her name, the university she was studying at and the degree she was studying. An information sheet for the primary co-researchers was also included (Appendix 3) and a consent form (Appendix 4) explaining the opportunity of withdrawing at any time during the forum.

As the co-researchers remained anonymous, they were more likely to be honest without the fear of reprisals – after all, I would not be marking any of their assignments and/or exam scripts. Anonymity also ensured that the primary co-researchers could state their experiences in a psychologically and physically safe environment, hopefully without being judged by myself and/or their fellow co-researchers. As Butin (2010) has suggested, the co-researchers enabled me to complete this study and causing them harm in any way must have been avoided at all costs. Anonymity can also reduce issues arising from interviewer bias (Barnes 2001).

In addition, D/deaf learners (as with other disabled learners) are often regarded as 'vulnerable' (Liamputtong 2007; Connolly 2003; Alasuutari 1998). This point is debatable as all of the co-researchers are university-educated which itself suggests they have an element of autonomy and independence – the overriding criteria for informed consent (www.gre:121208; Lewis 2003). As the co-researchers were self-selected, issues of coercion were also negligible (Hawkins and Emanuel 2005; Baker 1999). The intention was not to coerce or apply any kind of

pressure (Hawkins and Emanuel 2005) but to provide an opportunity for the D/deaf learners to discuss their experiences, both positive and negative, in the hope that the resulting guidelines would diminish the negative experiences and maximise the positives. Throughout my postgraduate studies, I have also been aware of the Helsinki Declaration, the policy document which covers ethics (on human subjects) issued by the World Medical Association (www.who:281013). One of the fundamental principles of the Nuremberg Code is to ensure that all research has a concern for social justice (www.ethical:2014; Weindling 2001), another important factor for transformative research. In addition to my two chosen thesis supervisors, I am also fortunate to have a mentor myself to ensure my own physical and psychological welfare was not compromised.

3.4 Recruitment of co-researchers and sample size

Qualitative approaches, such as this first phase of data collection, emphasise the role of the primary researcher (myself) as an active person who can relay the participants' experiences, rather than as an expert who makes values and judgements (Creswell 1998). My role in the forum was to encourage interaction between the primary co-researchers; and to analyse the collective biographies (Sakellariadis, Chromy, Martin, Speedy, Trahar, Williams and Wilson 2008). In addition, I also selected a D/deaf education specialist to join the forum for a different person's point of view. My thesis ICT advisor was a constant source of information and help

throughout the first phase. It is no exaggeration to say that I would not have been able to undertake this method of data collection without technical support.

The underlying objective of sampling is to attempt to provide a 'true reflection of the sampling population that is being studied' (Kumar 1996). The only way of ascertaining the correct number of D/deaf learners who are being supported by notetakers was from Student Finance England who distribute the Disabled Students' Allowances – my request for information was denied. The primary co-researchers were self-selected and purposeful/criterion sampling (Newby 2010; Dean 1998; Moser and Kalton 1996) was used to enlist the co-researchers as they were geographically dispersed. This sampling technique was also relevant as the co-researchers needed to have experienced the subject being studied (Gray 2004; Ritchie, Lewis and Elam 2003). There may also have been specific examples of snowball sampling (Bryman 2004; Gray 2004), where one or a number of the co-researchers passed on details of the research to a friend or colleague.

The co-researchers were eligible to participate if they met the following inclusion criteria:

- They needed to be Deaf or hard of hearing.
- They needed to be a university learner (undergraduate or postgraduate) or a recent graduate (since 2005).

- They needed to have been supported at some point during their time at university by a notetaker.

The main recruitment technique was via a number of different jiscmails of which I am a member (a copy of the recruitment email is in Appendix 5). Two of the jiscmails were available to me as I am a member of two professional bodies – the National Association of Disability Practitioners (NADP) and the Association of Notetaking Professionals (ANP). In addition, a few of my disability practitioner colleagues distributed the recruitment request to D/deaf learners they supported and/or were in contact with. CityLit, the organisation which trains the majority of communication professionals in the south of England, displayed the recruitment request on a number of their prominent notice boards. Finally, I utilised my contacts – both individuals and organisations – who have contact with D/deaf university learners via email and personal requests. Whilst I only required between five and eight (the standard number for a conventional focus group) primary co-researchers for this first phase, it was important that the D/deaf learners had received their notetaking support at different universities to ensure their actual experiences were diverse.

It was necessary to utilise as many different methods of recruitment as possible as there are an unknown number of D/deaf learners who are studying at university and have the support of a notetaker. D/deaf learners from the two universities where I have been based for the past

17 years were excluded from this first phase as I may have been able to identify a particular individual (Kumar 1996; Cohen and Manion 1994).

The issue of obstructive gatekeepers (Emmel *et al* 2007; Greene 2007; Gray 2004) was minimised as the majority, if not all of the co-researchers, had direct access to the jiscmails and notice boards. In addition, requesting co-researchers via direct methods such as the jiscmails and notice boards negated the need for my proposal to 'fit in' with an institution's specific requirements for any research undertaken with their staff and/or learners (Ritchie *et al* 2003; Meloy 2001).

3.5 Method

The method section addresses the decision as to why I selected WebCT as a data collection tool as opposed to other instruments which are traditionally utilised for research such as this. I have acknowledged that there are other tools and methods of research available which I dismissed as inappropriate for this particular study. The rationale for utilising an e-forum is also stated as it is a fairly recent phenomenon for research purposes. The logistics and accessibility aspects are also addressed as they are fundamental when selecting the data collection methods involved when researching a cohort such as PCRs. I have also included the limitations of the study as suggested by myself and the PCRs who participated.

Initially, I requested between five and eight PCRs to participate in the first phase as I did not want myself or the PCRs to be besieged with text, and the possibility of missing salient information during the analysis stage. This is the standard number of participants required for traditional face-to-face forums for the same reasons. Twelve individuals requested log-ins, although only nine accessed the forum. Six of the nine elected to read and contribute to the posts submitted by their colleagues, with the remaining three opting to just read the other postings. The average user session length was 19.58 minutes and the most active day was 12 August 2008 (Thorley and Tainsh 2008).

Why WebCT? : Acclimatising the PCRs to the WebCT mechanisms of the electronic forum ensured the PCRs could 'experience the usability of the site before they had committed' to participate (Nielsen 2000). WebCT is the corporate portal/interface of the university where I was studying for my doctorate. Although WebCT is usually used as a teaching tool, there are no valid reasons as to why this technology cannot be used as a research tool (Johnson and Ruppert 2002). In this study, I have viewed the electronic forum as a virtual focus group. Kayler and Weller (2007) suggest that on-line discussion groups can provide the perfect medium for learner e-discussions.

Why an e-forum?: Focus groups and interviews are popular methods within both educational and social science studies (Butin 2010; Creswell 2003, 1998). A focus group traditionally involves a number of

contributors, usually between four and ten people, who come together at a set time, in a certain designated place (Ritchie 2003). However, I needed to select an appropriate method for this first phase of data collection which would be both accessible and suitable for the primary co-researchers (Creswell 2003; Kumar 1996; Cohen and Manion 1994). Online data collection is both an 'efficient and convenient' alternative to traditional methods (Lefever *et al* 2007). It is noted by a number of researchers that participants in interviews and focus groups can feel anxious (Lewis 2003). Hopefully this was negated by utilising a virtual forum where the co-researchers did not have to participate face-to-face (Hinchcliffe 2009; Hinchcliffe and Gavin 2008; Bryman 2004; Finch and Lewis 2003). Due to the dialogical nature of the e-forum, the co-researchers and I had the option for asking follow-up questions (Butin 2010; Hinchcliffe 2009) on issues which were of particular interest.

A 2008 online collaboration of academics resulted in participants engaging in a novel form of sharing ideas (Sakellariadis *et al*) although this was not a natural and/or comfortable experience for some of the people involved:

It felt very risky to be putting these words out there for everybody in the group to see (p.1207).

All of the PCRs were required to read and acknowledge three separate bespoke documents to become part of the forum fraternity which were viewable via the welcome page (see Fig 3.1). Whilst I did not want to inundate them, and potentially scare them away, the three documents

were required as part of my ethical approval. The first of the documents was the bespoke consent form to participate in the forum. This was to ensure the PCRs were aware that they could leave the forum at any stage during the six month period the forum was 'live'; and that they did not have to give any explanation as to why they want to discontinue their contributions. The consent form also stated the central purpose of the study and the data collection methods which would be used (Arthur and Nazroo 2003; Creswell 2003).

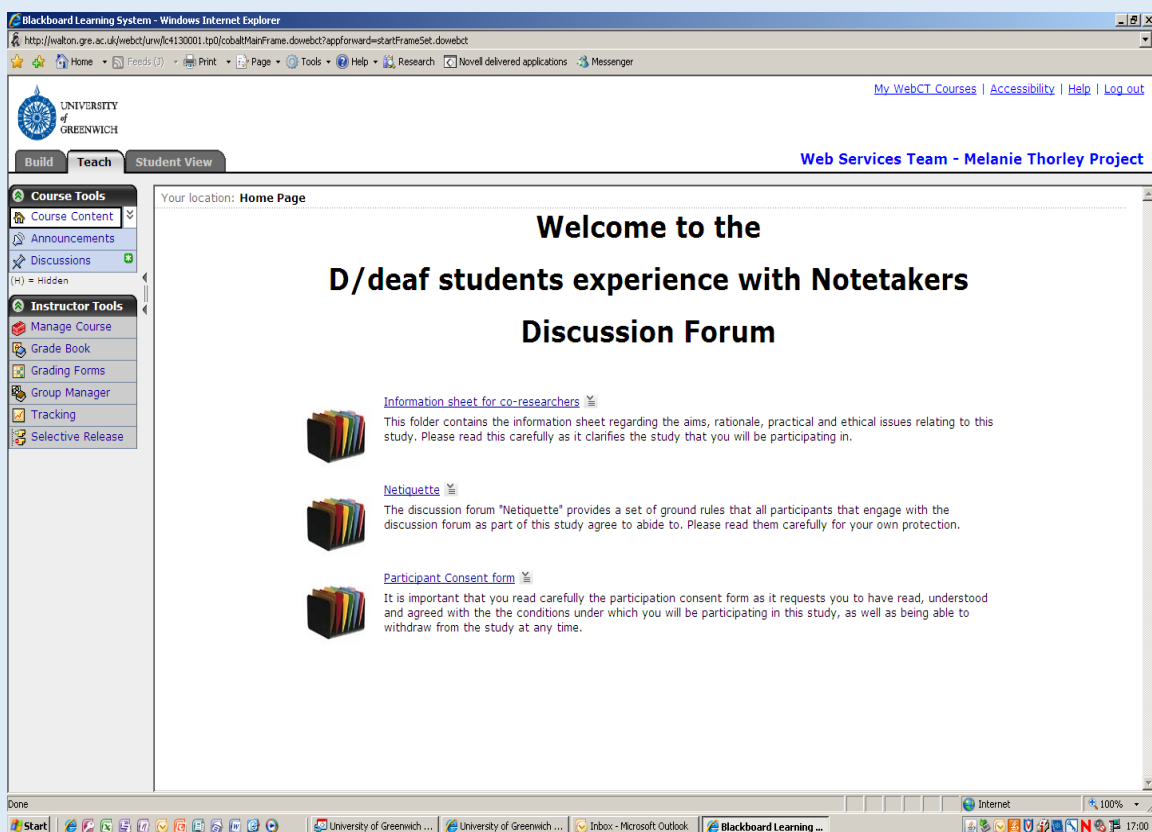


Figure 3.1 – screenshot of forum welcome page

The second document explained how the forum would work and the technology involved. This was devised in partnership with my ICT advisor as I had no experience of utilising a forum. The document also included

screen shots to aid the PCRs to navigate the forum and how to access and post messages.

The third, and final document was also bespoke – the Netiquette Agreement. The Agreement was amalgam of information from three separate organisations and was designed specifically for this phase of the research (www.bps:011208; www.microsoft:011208 www.portal:011208)

This enabled myself and the PCRs to be guided by acceptable terminology and general courtesy. As it was a 'closed' forum, it was unlikely that the research would be sabotaged (Bickle and Carroll 2003; Postmes and Brunsting 2002), a concern which may be relevant in more 'open' discussion forums. The Netiquette Agreement also stated my ICT advisor would continuously monitor the postings to ensure the comments were not harmful and/or defamatory.

An electronic focus group can facilitate a number of people to 'internalise group membership and social identities to achieve social involvement' (Postmes and Brunsting 2002). The shared identities are fundamental to a study such as this which has emancipatory underpinnings rather than the tradition of the researcher knows best.

Accessibility: as I needed to use technology which was as accessible as possible, I consulted various books, manuals, journal articles and staff with both the knowledge and experience of the different technical applications which can be utilised for research purposes. Conventional data collection methods using paper and pen were disregarded as they

are both time-consuming and costly (Lefever, Dal and Matthiasdottir 2007) when the physical location of the D/deaf learners was taken into consideration. However, the document I attempt to adhere to at every stage of the study were the W3C guidelines which were devised to ensure that technical applications are as accessible as physically possible and require minimal computer skills (Lefever *ibid*). A distinction needs to be made between digital natives and digital immigrants. The digital natives are generally younger, technology-savvy individuals who have been aware of, and familiarised themselves with the ever evolving world of technology. Digital immigrants tend to be older individuals who did not have such advancements in technology in their youth (Kennedy *et al.* 2008; Palfrey and Gasser 2008). I fully accept that I was a digital immigrant at the beginning of this study which demonstrates that the asynchronous data collection method was selected to suit the co-researchers rather than myself. Whilst it is the experiences of the D/deaf learners which is the central tenet of this research, an additional outcome is that I am slowly becoming a digital native. After careful consideration, I opted to use the virtual forum as the most appropriate method of data collection in this first phase of data collection.

The forum pages were set out as black text on a plain white background. However, there are tools inbuilt into WebCT which enabled the PCRs to select a format which suited their own personal preferences (www.nottingham.ac.uk/281013). The actual forum pages followed guidance

from Nielsen (2000) who suggests eighty percent of the text was content with the remaining twenty percent dedicated to navigation tools. Kayler and Waller (2007) also suggest that e-discussions portray a lived experience for the contributor. This fits in agreeably with the emancipatory nature of this study. The interface and technology inbuilt within the WebCT enabled both myself and the PCRs to converse in an environment similar to a physical focus group. This also enabled me as the primary researcher to participate in a 'virtual space of the interface...where ideas can be bandied about' (Kien 2008:58). One of the greatest benefits of this data collection method was the unlikelihood of losing data and the ability to transfer the text into a Word document for the manual content analysis (Lefever *et al* 2007).

Logistics: For a conventional focus group, I would have needed to be at a certain place, at a certain time; as would the nine PCRs. In addition, I may have required two sign language interpreters and a notetaker/palantypist to make a note of everything said and/or signed. This would have been very expensive and time-consuming as the focus group notes would have needed to be *verbatim* rather than conventional lecture notes which would only contain salient information. To satisfy the conventions of interpreting in this context, the focus group may have needed to be filmed. This would have been complicated further as I would have required written consent from the nine PCRs to be filmed (www.institute:2014). An electronic forum also eliminated the process of

verbal hygiene – where interpreters and notetakers filter out what they perceive to be irrelevant information (Mace 2000; Cameron 1995).

As this was an educational-social science study, I had a number of alternative methods of data collection available. As mentioned previously, a physical focus group would have been problematic for a variety of reasons. Interviews would have created problems for the same reasons. Field or covert observations would have been problematic (Quinn Patton 2002; Creswell 1998) as I would have had to access different higher education institutions which meant relying on gatekeepers (Day Ashley 2012; Greene 2007). Overt observations may have altered the behaviour and/or dynamics of the group, as witnessed in the Blackthorn study (which would have negated the whole purpose of the observation (Tedlock 2003; Janesick 2003). Case studies (Stake 2003) would have provided insufficient experiences for a study of this length. Document analysis (Butin 2010) and artefact reviews (Mertens 2009) would have been virtually impossible as there is so little information on notetaking in higher education and also the reason that I was unable to analyse any existing statistical data. Sabotage and/or fraudulent PCRs were minimised as the D/deaf learners were required to use their university email addresses (Lefever *et al* 2007).

3.6 Summary

The information gleaned from this first phase has demonstrated what a complex issue notetaking in higher education is. Whilst the co-researchers were a homogenous group, in that they were all Deaf or hard of hearing university learners or recent graduates, their experiences have been a mixture of both positive and negative examples. The resulting *NOTE Information, Information and Guidance* is intended to reinforce positive experiences whilst the negative experiences diminish as much as possible. The forum discussion, previous research and 17 years notetaking experience were combined to produce the electronic questionnaire as discussed in Phase Two. This chapter concludes with a quote which summarises why notetakers undertake the role:

Have to say, with 2 years experience of notetaker support I have found it truly liberating. I didn't realise how much I had missed and just how unequal that had left me (PCR 2: 48).

CHAPTER FOUR - PHASE TWO: METHODOLOGY AND METHOD

Qualitative research is about words and stories (Butin 201:74).

The fundamental purpose of the two phases of data collection was to discover knowledge in an under-researched field – that of notetaking for D/deaf learners in higher education. As Verma and Mallick (1999) suggest:

..to discover facts which are fundamental and important in the sense that their discovery will extend the boundaries of our knowledge in a particular area or discipline (p.11).

The questionnaire is a synthesis of the forum findings (Appendix 6), plus personal experience and research, and complements the forum phase ensuring that a mixed-methods approach was applied which is also fundamental to transformative studies (Mertens 2009). Ordinarily, a pilot study (Hedges 2012; Mertens 1998) specific to the two phases would have been utilised to gauge the appropriateness of the questions. However, the number of D/deaf learners supported by notetakers in the UK is so limited that it is proposed that this would have been impossible to sample. To ensure the questions were 'D/deaf friendly', a colleague, who has been a Teacher of the Deaf (ToD), with more than 25 years experience, ensured the questions were accessible and non-ambiguous. The ToD also checked for jargon, bias and leading questions (Mertens 1998). I purposefully avoided mixing positive/negative wording (Tymms 2012) to ensure the secondary co-researchers did not have to double-think their answers, which could skew the data. This is important as the

questionnaire was intended to be one of self-completion (Verma and Mallick 1999), as was the first phase.

Purposeful sampling as in Phase One was also used in Phase Two. However, as I required a larger number of co-researchers for the second phase, a larger number of organisations were also approached to enable a nationwide distribution. A copy of the recruitment email for secondary co-researchers and a copy of the questionnaire can be found in Appendix 7. An electronic questionnaire was selected as the data collection tool for the same reason that the first phase (forum) could be accessed when it was convenient (where and when they completed the questionnaire, for example) for the D/deaf learners (Lefever *et al* 2007). The questionnaire responses (see Appendix 8) were mostly comprised of closed answers with the opportunity to add any additional comments. This enabled the secondary co-researchers to complete the questionnaire in approximately ten minutes. The time taken to add comments would have increased the time it took to complete the questionnaire. In addition, if the questionnaire was too long, the co-researchers may have lost interest before completing all of the answers, possibly ticking the boxes without thinking or ticking the same box in each question (Tymms 2012). However, it would have been arrogant to compile a questionnaire where every possible concept and variable was addressed (Kumar 1996). This was a further reason for providing the opportunity to expand on their

responses, regardless of whether the questions were factual or opinion-based (Verma and Mallick 1999; Scott 1996).

The demographic questions (Mertens 1998) were kept to a minimum as it was the co-researchers *experiences* that were my focus, and therefore the questionnaire was mostly comprised of non-threatening behavioural questions (Lefever *et al* 2007; Mertens 1998) which avoided judgement and/or prejudice on my part.

The sample population was D/deaf learners in higher education whilst the sampling frame (Thomas 2006) narrowed this cohort to D/deaf learners who had been supported by a notetaker. However, as I required a larger number of co-researchers for the second phase, a number of organisations were also approached to enable a nationwide distribution, although a few SCRs were from the Republic of Ireland. The actual sample selection (Thomas 2006) was via self-selection from the organisations which received the call for co-researchers. As with phase one, there may have been examples of snowball sampling (Toma 2006) where a D/deaf learner who received the request passed on the information to a D/deaf friend or relative. Random sampling techniques (Thomas 2006) would not have targeted D/deaf learners, and would therefore have been inappropriate for this study. The questionnaire was distributed, and completed, electronically via SmartSurvey and was deliberately available for seven months (May to November 2008) to ensure the questionnaire could be completed when it was convenient for the learners.

The issue of gatekeepers may have been problematic with the second phase, as with the first phase of data collection (Day Ashley 2012) as the call for co-researchers was mostly sent to staff working with D/deaf learners. However, one of the jiscmails used (CHESS) was available to staff and D/deaf learners. Thirty secondary co-researchers completed and emailed the questionnaire to my institutional email.

CHAPTER FIVE - DISCUSSION AND FINDINGS

People who have verbal and social communication difficulties, such as those with a hearing impairment, tend to find verbal-based communication problematic and may prefer to utilise text (Hinchcliffe 2009:173).

The over-riding purpose of this study was to produce comprehensive *Information and Guidelines* for D/deaf learners who work with notetakers, notetakers themselves, teaching staff who have D/deaf learners supported by notetakers in their teaching environments and for classmates of D/deaf learners who are supported by notetakers. Research question one: *'From the perspectives of the co-researchers (the students themselves), what makes a successful and positive experience of being supported by notetakers?'* concentrates on the perspectives of the co-researchers to comprehend how they view successful notetaking support and the discussion and findings which address these four themes in succession. Research question two questions how notetaking provision can be developed to include the requirement of D/deaf learners, if indeed, notetakers will still be required in this technologically advanced era.

The link to the forum and the questionnaire was in a 'call for co-researchers' email which was emailed to the various individuals and organisations. The learners' experiences were mixed and varied in how much information they elected to contribute. The co-researchers were geographically dispersed, including eight learners from Ireland who were included in the discussion and findings as it was their experiences of

notetaking support which were more important than location as notetaking support can vary between faculties, as well as between higher educational institutions. The gender of the co-researchers was not disclosed to ensure they could not be identified (Butin 2010; Mertens 2009). This was due to there being limited numbers of D/deaf learners supported by notetakers in higher education and one of the questions asked which subject they were studying/had recently studied. The spelling and/or grammar within the vignettes cited in the text provided by the co-researchers was not altered but maintained the exact words provided. However, this may mean that their words may have been misinterpreted and/or resulted in marginalising them although this was not the intent (O'Neill and Jones 2007). Had the comments been altered, the importance of the D/deaf learner voice would have been contradicted and therefore compromising the 'dimension of authenticity' (Fielding 2004:299). The only data that was 'cleaned-up' (Mertens 1998) throughout the two phases of data collection was the 'characteristics you require in a notetaker' as the responses were collated into a content cloud - the darker and larger words are the most frequent (Cidell 2010).

Whilst the gender of the co-researchers was not requested, a number of the primary co-researchers identified themselves by their first names, surnames were not permitted for reasons of anonymity, whilst a number of the secondary co-researchers were identified as fe/male from their email addresses that they supplied. The co-researchers who were

identifiable by their gender indicated were in equal measure both females and males. Co-researchers who utilised palantypists and/or stenographers were also included as the learners often had a mixture of this and conventional notetaking support.

5.1 Phase One – the forum

Twelve D/deaf learners, the primary co-researchers (PCR1, PCR2, PCR3, etc.) currently studying in higher education and/or recent graduates, requested to join and contribute their experiences. Of these twelve, nine learners chose to participate and three remained as purely readers (Seddon, Postlethwaite and Lee 2008), previously regarded as lurkers by Lave and Wenger 1991, or bystanders (Sakellariadis *et al* 2008). The lack of comments from the three co-researchers who opted to read the comments, but not contribute their own experiences may have been for a number of reasons, including the rationale given by a reader in a previous study:

My silence is neither disapproving nor is it disrespectful; it is simply a silent thinking (Sakellariadis *et al* 2008:1209).

This resulted in six active co-researchers who provided comments and questions throughout a six month period of the forum being 'live'. As the primary co-researchers were engaged in dialogue with each other, they regularly included 'guest#' when addressing a comment provided by one of their fellow forum co-researchers – this was a consequence of the

technology utilised which anonymised co-researchers with the 'guest' nomenclature.

5.2 Phase Two – the questionnaire

The questionnaire in this second phase provided the final aspect of the information and data gleaned from the literature, personal experience, previous research and the forum findings. Co-researchers in the questionnaire are referred to in the text as secondary co-researchers (SCR1, SCR2, SCR3, etc.). Thirty D/deaf university learners and recent graduates submitted a completed questionnaire via SmartSurvey. Whilst this is a smaller number of co-researchers than I anticipated, the co-researchers chose to be part of this study which is positive in itself (Lefever *et al* 2007). There was an even mixture of learners straight from school or college (n=16) and those who regarded themselves as mature learners (n=14). The majority of the secondary co-researchers were undergraduates (n=24) studying a variety of disciplines such as archaeology, education, natural sciences and special education. Three of these undergraduates were studying Deaf Studies. The postgraduates (n=6) included mathematics, social work and sustainable development at Master's level. Eleven of the SCRs identified themselves as Deaf, whilst 18 described themselves as deaf, hard of hearing or hearing impaired. One co-researcher self-identified as 'other', providing the following reasoning:

Deaf or deaf. I heard about the 'd' and 'D' element of the word previously. I don't personally think much about that. I see it as diversity (SCR8:p3).

SCR13 was also included in the findings and discussion despite the fact that he opted for a dictation machine rather than a notetaker. Due to the reasons he gave for this, I have included his comments:

I was assessed and given the option of having a notetaker, but I prefer to rely on dictation machine as I feel this would impact less on my learning. However, I often wonder if I am disadvantaging myself, due to my own insecurities about having a note taker (p.15Q).

SCR30, who was not provided a notetaker whilst at university, was also included in this analysis stage as his comments were salient to the study, including:

I have never had a notetaker in class and I depended most of the time on friends whose note is not even perfect and somehow confusing. The university has not taken this into consideration so I am suffering (p.15Q).

The irony of this statement by SCR30 is simple – he was studying for a B.Ed. in Special Education. The SCRs were primarily supported by manual notetakers (n=13) and electronic notetakers (this included a palantypist) (n=8) although four had experienced a mixture of the two whilst one learner elected to be supported by a palantypist (SCR24) who added the comment that ‘notetaker provision should be replaced by trained palantypists’. This is an unrealistic sentiment for four main reasons – firstly, there are a lack of palantypists in the UK, as both the training and the equipment is expensive. Secondly, the company who manufactured palantyping machines is no longer in operation. Thirdly, very few D/deaf learners would want a verbatim transcript of their learning sessions. As

with all learners who receive notetaking support, the majority of them just want the salient information and not a word-for-word account of everything that was discussed and/or imparted by their lecturer and/or peers. Fourthly, and finally, palantyping machines are impractical, if not impossible, to use during field trips, science laboratories, art and/or design studios.

The demographics of the secondary co-researchers is evidence that D/deaf learners study a variety of subjects and have the potential to undertake postgraduate study, also in a diverse range of subjects. The demographics also demonstrate that notetakers support a wide range of D/deaf learners, with a range of genders, ages, levels of study, academic disciplines and across the whole spectrum of D/deafness and hard of hearing. This mixture of D/deaf learners validates my argument for employing qualified, professional notetakers who have had adequate training in D/deaf awareness and the need for the notetakers to be university graduates themselves. In addition to the notetakers who supported the SCRs, a number of the learners were also supported by sign language interpreters, which reinforces the need for the actual notes that are provided to be accurate, with all of the salient information included.

The limitations of the electronic forum and questionnaire were parallel. As a number of the co-researchers may have been native signers, a text-based method may not have been the most appropriate (Luckner and

Handley 2008). However, as all of the co-researchers utilised a notetaker to access their studies, this may or may not have been an issue. I could not physically see the co-researchers, and so I was unable to gauge facial expressions and body language (Butin 2010) which may have contradicted what was being said. The technology may have also been a barrier (Lefever *et al* 2007) as just six of the nine primary co-researchers actually posted threads. I also need to acknowledge that university students are often saturated in study, social activities and/or employment, consequently not having the time or enthusiasm to engage in this particular study. Consequently, locating and engaging with the D/deaf co-researchers, their knowledge of English skills and the technical skills of the co-researchers (Lefever *et al.* 2007) may have impacted on both phases.

The forum dialogue and the questionnaire responses were analysed manually according to the three research questions, and the findings were segregated into four sections, which is how the *NOTE-IaG* is presented:

1. Information for D/deaf learners who work with a notetaker.
2. Information for notetakers supporting D/deaf learners in higher education
3. Information for teaching staff.
4. Information for learners who have a D/deaf learner and notetaker in their learning environment.

The findings from the two phases were initially analysed separately before being amalgamated to address the three research questions. The information from the forum and questionnaire were required to ensure the 'voices' of the co-researchers were fundamental to the *NOTE-IaG* which was the initial reasoning behind the study. Due to the anonymous nature of the data collection, the co-researchers could provide honest accounts of how they have perceived their notetaking support, without recrimination. It is important to understand the current context of notetaking support for D/deaf learners who are supported by notetakers during their higher education as they are the people most affected, either positively affected or on occasion, negatively affected. It was also important to utilise the comments from the co-researchers to view how D/deaf learners might change current provision to enable future D/deaf learners to have a positive experience. The sub question of the possible future of conventional notetaking is important as education is inherently aligned to technological advances which may impact on the current *status quo*.

RQ1: FROM THE PERSPECTIVES OF THE CO-RESEARCHERS (THE LEARNERS THEMSELVES), WHAT MAKES A SUCCESSFUL AND POSITIVE EXPERIENCE OF BEING SUPPORTED BY NOTETAKERS?

To answer this first research question, the findings from the forum and questionnaire were amalgamated and separated into the four themes for the *NOTE-IaG*. Whilst conventional thinking would understand there are two people involved in this experience, the D/deaf learner and the

notetaker, this is not always the case as lecturing staff and/or other learners may impact on the working relationship. Consequently, the *NOTE-IaG* contains information and guidelines for the D/deaf learners themselves, notetakers supporting D/deaf learners, teaching staff who have a D/deaf learner and notetaker in their teaching sessions and finally, for classmates who have a D/deaf learner and notetaker in their teaching sessions.

Both cohorts of co-researchers stated both negative and positive experiences. Whilst the research is concerned with providing and endorsing good practice, the negative comments can be a useful tool to minimise such bad practice by addressing the concerns of the co-researchers themselves. Each of the emergent themes will be discussed in turn.

5.3 Theme One: information and guidelines for D/deaf learners

Theme one discusses the various types of working relationships that occur between a D/deaf learner and their notetakers; situations where notetakers are employed to simultaneously support more than one D/deaf learner at a time; and whether or not notetakers should contribute their own thoughts during teaching sessions. As a qualified notetaker myself, I felt it was essential to pose a question regarding the types of working relationships that the D/deaf learners have experienced and/or if they would prefer a different working relationship. Notetakers need to ensure

they provide the type of service required by the D/deaf learner rather than making assumptions. This would be very difficult without seeking the opinions of the D/deaf learners we support. Whilst I believe it is important to have a good working relationship with the D/deaf learners I support, the co-researchers may have regarded the question as irrelevant and/or unimportant. The discussion on this particular thread contained the most dialogue in the whole of the forum discussions, with five out of the active six primary co-researchers posting their views, the primary co-researchers in this study viewed the working relationship as an important aspect of notetaking support. The thread began with an initial posting from myself to establish the beginnings of the required rapport with the primary co-researchers:

Do you think it is important to have a close working relationship with any notetakers you work with; or is a 'friendly but not friends relationship more appropriate; or, does it matter whether you like the notetaker or not? (MT:29F).

The postings in response included the following comments:

It's a working relationship so that, with professionalism, it should work whoever the notetaker, but I have to say it's all very much easier if you get on well with your notetaker and can have some sort of friendly relationship (PCR2:29).

The small things support workers do to cater for the deaf student makes a big difference to us as deaf students (PCR4:4).

Also, an understanding of the student is imperative....all the prior will make a more complete, personal, service for the client, with every chance to achieve...the above understanding of the student could be a tool to reduce stress levels of the student, e.g. trust and understanding in the scribe, and also, that a degree of friendship and rapport has been established also (PCR11:4).

Although SB was not a primary co-researcher via the forum, his insight was very useful:

I very often socialise with my note takers (i.e. coffee and a chat), it helps to get to know the person taking your notes for you for the next three years. It is nice to have some informality and it gives you a chance to talk about their notes or troublesome lectures (SB:120808).

These sentiments were echoed by PCR5 who stated:

I am very lucky to have two notetakers in my first year...they give me continuity, and are very understanding. They are extremely supportive and I am very lucky to have them. In fact, I had such terrible obstacles during my first year, that I don't think I would have lasted the year if it weren't for my support workers (p.5F).

A number of primary co-researchers did not always have a positive relationship with their notetakers:

It matters greatly whether or not you like your notetaker or not. In my experience I have come across notetakers I did not really like, and this affected my self-esteem greatly because often I just did not feel like going to lectures or learning anything at all (PCR8:31,32).

I think probably the most important thing is to have someone who understands you and how you work than almost anything else. Familiarity with the subject is a huge plus (PCR 2:38).

It is also interesting to note that the characteristics provided by the secondary co-researchers matched three out of the four qualities suggested by Collins (2003:59) that of adaptability; being a quick writer and empathy. The only one of Collins' qualities not mentioned was empathy, although *understanding; supportive* and *respectful* were put forward. A number of the positive working relationships included the following:

I am lucky that I get on well with both my support workers, and they are very understanding (PCR10:43).

It is very helpful to have the same people throughout your course where that's feasible. I have a good number of different people but with people I know and like, and who I regard as excellent notetakers, I just sit back, relax and enjoy the learning (PCR2:41).

It is useful to have one or two note takers who are familiar with you, this is because they will understand your needs very well and will understand what support needs to be given (PCR8:40).

It is very useful and important to have notetakers who are familiar with you and the subject material (PCR8:40).

SCR21 provided the following rationale regarding the benefit of the notetaker knowing the learner they are supporting:

It's extremely important they (notetakers) get to know the student, level of hearing loss and the students needs otherwise the notes aren't sufficient to facilitate the student's learning (p.15Q).

Importantly, it appears that meeting the notetaker *before* the actual in-class notetaking support occurs, may minimise personality clashes and/or pre-empt negative relationships. However, more than half of the SCRs (n=18) were not given the opportunity to meet their notetaker beforehand although 25 out of 30 SCRs felt they should have been given the option.

In addition, one issue which was raised by a number of the secondary co-researchers, related to notetaking practice where one notetaker supported two or more D/deaf learners simultaneously. It would be virtually impossible to provide bespoke, personally-tailored notes for more than one learner, yet this practice continues. One of the questionnaire questions asked the following – *should notetakers tailor their notes to suit individual requirements?* Twenty-three of the SCRS answered yes, which suggests this practice does suit the learners in this study. Comments were also provided by a number of SCRs on this specific issue:

SCR16 *more note-takers to focus on individual needs, not note-taking for two people at the same time with different needs (p.15).*

SCR8 *adaptive to my needs as a student (p.23).*

SCR23 *meet individual needs, not focussing on the other student (p.31).*

SCR8 *willing to write notes/structure in a way that suits me (p.3).*

Whilst this appears to be an issue for the majority of SCRs, there does not seem to be a straightforward solution. Learners may need to share a notetaker due to availability and/or financial reasons. Yet, having two or more notetakers in one class, especially in a seminar or tutorial where there are smaller numbers of students, would be impractical and can cause conflict, especially when one notetaker is not trained and/or does not possess the required knowledge and skills. I have experienced this myself on a number of occasions. Before I started to use the *NOTE* template, I averaged 10 pages of summarised notes per fifty minute session, either manually or notes taken on a laptop. It is therefore very difficult when the other notetaker produces a few pages of notes, mostly copied from a PowerPoint presentation or Whiteboard. On three occasions it resulted in my supporting two D/deaf learners simultaneously and therefore making it difficult to tailor the notes accordingly. In addition to the quality of the notes, there is the added matter of yet more additional bodies in the learning environment which can be exacerbated further if the notetakers are co-working with interpreters or communication support workers (CSWs).

The ability to tailor notes to suit individual D/deaf learners was also an important aspect from the perspective of the D/deaf co-researchers. However, this is difficult to achieve if D/deaf learners are supported by numerous notetakers during the course of their studies. A number of the primary co-researchers raised the issue of being supported by one or two

notetakers or by numerous notetakers. Vignettes from the forum were provided by the primary co-researchers on their experiences of having one or two regular notetakers, being assigned different notetakers and/or experiencing both types of provision:

My notetaker who I had for two years...her notes were brilliant. I now have 4 different notetakers which is a bit stressful having to read 4 different kinds of handwriting and 4 different styles of notetaking...which is why it is better to have one or two notetakers that you are comfortable with and knows you best (PCR4:5).

PCR4 also responded to the previous statement from PCR10 by commenting 'it is very sad' (p.5) that some students are supported by different notetakers. They also provided the following insight:

I always find it daunting when I have a different support worker, as you have to go through the same thing over and over again of what your needs are, and this can be quite stressful and time consuming (p.5F).

Adequate training was suggested by PCR10 to prevent difficulties with multiple notetakers:

...that they (notetakers) should learn the same format for the notetaking...hopefully that way, when a new support worker is needed the student does not have to train them to the standard of their previous support workers (p.5F).

PCR4 pre-empted difficulties with working with numerous notetakers and therefore numerous notetaking styles and formats. When presented with another new notetaker, PCR4 shows them a copy of her notes provided by a previous notetaker who they worked well with, to show how they would like their notes. This comment was one of the postings which prompted

the idea of further developing the *NOTE* template. This point is affirmed by the writer of the blog below who writes:

I've had notetakers that were notetakers for the deaf, produced really, really good notes (to the point that the teacher asked for copies at the end of year to help him with his own presentation style) and gave a great deal of support to me (especially in the course I took before I went to university). I've also had notetakers that were general notetakers, who, from a one hour lecture, produced notes that were one page long, and spent the vast amount of the lecture surfing their email and checking ebay (I complained about that one!). I've also had general notetakers who, from a one hour lecture, produced 6 pages of densely written notes – which were wonderful when it came to revision. Again, some gave a great deal of support, became good friends. Others just sat at the back of the class, had nothing to do with me outside of the necessary interaction, and left me to it. There has been a much greater variation of service from notetakers than there has been from my `terps, I do know that (www.limpingchicken.030814).

In contrast, SCR9 had a totally different experience of being supported by notetakers:

I've graduated with two degrees. The last one was first class honours. Electronic notetaking was instrumental in my academic success so far. I am now doing a Masters (p.29Q).

This vignette echoed the experience of a D/deaf learner who participated in research conducted by O'Neill and Jones (2007):

I also had a notetaker in lectures which enabled me to follow discussions and take part, as well as understand the lectures more effectively. I feel the support has contributed to me successfully completing my degree (p.65).

It is interesting to acknowledge the findings of Power and Hyde (2002) who reported that a number of D/deaf adults who had achieved well academically, experienced loneliness and isolation as a result of learning in a mainstream environment.

Notetakers in higher education, regardless of whether they are qualified or other students, should not, at any stage during the teaching sessions, contribute their own thoughts. However, a number of the co-researchers commented that this was not the case (n=8), whilst a number disputed that notetakers *should* contribute their own thoughts (n=6). SCR27 made the following statement:

...they only ever interrupted if it was to clarify information and they tried not to, or would leave me a cue in the notes to say "ask Fred for this to be clarified" (p.22Q).

However, it is likely that SCR27 misunderstood my intentional question regarding notetakers contributing their own thoughts. I do not view seeking clarification as adding my own thoughts. Seeking clarification, from a notetaker's perspective, is to enable us to convey the correct information. Commenting 'I prefer Vygotsky to Klein' or 'I think we should bail from the EU' is contributing my own thoughts, rather than providing the information delivered by the lecturer. I would be doing a disservice to the D/deaf learners I support if I add my own thoughts. Conversely, not seeking clarification can also be detrimental. Some years ago, I was supporting a first year psychology lecture which was delivered by a new member of staff. For two hours, the lecturer discussed Piaget and his

salivating dogs. Whilst I am not a psychologist, I was certain it was Pavlov and attempted to clarify with the lecturer at the end of the session. The lecturer did not take too kindly to my question and accused me of being critical and that I had no business questioning the information given during a lecture. To ensure the D/deaf learner I was supporting received the correct information, I made a quick note at the top of the first page suggesting they look up Pavlov. In addition, the ability to insert cues into the notes for later clarification was suggested as one of the characteristics the co-researchers preferred their notetakers to possess was stated by SCR23. Conversely, SCR12 suggested that notetakers contributing their own thoughts was not a characteristic they preferred. This may have left SCR12 without access to informal information readily exchanged by hearing learners. Therefore, they may have been excluded from 'important but unpublished information' (Foster, Long and Snell 1999:226). PCR2 commented on this scenario which does not fit the ethos of 'seen but not heard':

Also tricky if the notetaker finds the subject especially fascinating and wants to add to discussion! (p.46F).

Ordinarily, I had no wish to contribute my own thoughts whilst notetaking although I do recall one occasion when I had to sit quietly during a three hour debate between a class of second year environmental scientists on foxhunting.

Whilst this study concentrated on notetaking for D/deaf learners in higher education, it was disconcerting to discover 54% (n=17) of the secondary co-researchers were unaware of the Access to Work scheme ([www.gov:120414](http://www.gov.uk/guidance/access-to-work)) which provides, amongst other services, notetakers for people in work who require notes for interviews, training and meetings. SCR7 provided the following statement to the question regarding knowledge of Access to Work:

I have heard of access to work now. I cannot remember if I had when I was a student, but I did know to go and see deaf specialist employment advisors in Sheffield which was invaluable....my students tend not to know about AtW but I do tell them about it when I get the chance and I do advise them to apply for it (p.29Q).

Whilst this particular secondary co-researcher does provide information about the scheme to their D/deaf learners, it is doubtful that the D/deaf learners would have received the information otherwise. Whilst there have been recent cuts to the provision provided by Access to Work ([www.abilitymagazine:120414](http://www.abilitymagazine.co.uk/2014/03/08/14)), notetakers can be provided to support D/deaf employees.

Notetaking itself is not a panacea. A recent blog from a D/deaf university learner made the following comment:

I actually found that having a note-taker, even an electronic note-taker did NOT enable me to engage in real-time discussions with the classes I attended, so much so that I now prefer a lipspeaker ([www.limpingchicken:03/08/14](http://www.limpingchicken.com/2014/03/08/14)).

It should be acknowledged that whilst a lipspeaker enables a D/deaf learner to following live discussion, lipspeaking is extremely tiring for the D/deaf learner and there is no record of what has been said and/or discussed.

5.4 Theme Two: Information and guidelines for notetakers

Theme two concentrates on whether or not it is important for the D/deaf learners that the notetaker is qualified; the utilising of fellow learners to provide notetaking support for a D/deaf classmate; and whether or not it is important that the notetaker has studied the same academic subject as the learner they are supporting. Fourteen of the SCRs were supported by qualified notetakers although there is no way of gauging if they already knew the answer to this question, or whether they had to ask the notetakers themselves to be able to respond to the question correctly. Three notetakers were not qualified, with a further twelve having an unknown status regarding notetaker qualifications. This may suggest that not all D/deaf learners view a qualification in notetaking as a prerequisite in their support staff, or they may not actually know if the notetaker is qualified if they are engaged in 'stealth' notetaking whereby the learner and the notetaker do not communicate with each other. A number of my fellow notetakers have experienced this situation for themselves but I have no personal experience of supporting a D/deaf learner who prefers to remain anonymous via stealth notetaking. However, an American disability resource centre has suggested the following:

Although it is your choice to stay anonymous, you might find it helpful to establish a positive relationship with your notetaker (Trionfo 2000).

Personally, I have only had experience of being acknowledged as supporting a specific learner with a number of learners deliberately sitting next to me – either to follow the notes in real time, or to reinforce to the lecturer and their peers that I am there for a reason. I have not had the experience of taking notes for different learners within the one learning environment except for a number of summer schools which were tailored specifically for D/deaf learners with the learners receiving a photocopy of the written notes or a typed copy, depending on the preference of the learner.

One of the recurring issues raised by the co-researchers were the practices of some learners being supported by qualified, professional notetakers or other university learners. There are a number of reasons why universities use student notetakers rather than professional, qualified (career) notetakers. As stated in the literature review chapter, The Royal National Institute for Deaf People (RNID 2003) has categorically stated that D/deaf learners should always have a trained notetaker and 'should not be expected to use notes that fellow learners have taken'. Whilst this may be their stance, there are not enough qualified notetakers in the UK to provide for the increasing numbers of D/deaf learners entering higher education ([www.hesa:111108](http://www.hesa.gov.uk/111108) and 281013).

One of the main advantages, for the higher education institution, is cost. Ordinarily, qualified notetakers would be paid more for their services than employing other learners:

My concern is that undergraduates are cheaper and therefore can generate income for the institution. I think it is a good idea to employ postgrads – if they have the skills – to support undergrads which is (usually) not as tricky as MA/MSc/MPhil etc. (MT:23).

...as I am dependent on the quality of notes provided by the notetakers (often with spelling errors as they are not experienced in the sciences I am studying) (SB:290708).

However, this would also be the case if SB had been supported by a student notetaker who was studying a different discipline as suggested by PCR4:

A post-grad would be good but I had an experience with a post-grad in a different subject area and I personally did not find her good (p.23F).

PCR2 stated it was inappropriate to employ other learners on the course which is 'not at all professional or even, possibly, ethical' (p.27F), concurring with the sentiment as raised by the RNID. PCR8 questioned the use of student notetakers by stating the following experiences:

It is only those who truly understand the complications that deaf people face who manage to offer the best service in my opinion. Those with little knowledge of deaf awareness tend to give a poorer service in my opinion, I have had a few of these notetakers during my time at Uni which affected my learning numerous times (p.40F).

It is very useful and important to have notetakers who are familiar with you and the subject material (PCR8:40).

I am pleased that your support staff have been so supportive although it enrages me that students are still having such an awful time. Maybe we can make some suggestions at some point to enable the beginning of the year to be a positive, enjoyable experience rather than traumatic (MT:5F).

The following table provides a synopsis of the dis/advantages of using other learners to provide notetaking support for D/deaf learners:

Table 5.1 – synopsis of using other learners to provide notetaking support for D/deaf learners

Advantages of using other learners	Disadvantages of using other learners
Student notetakers are usually cheaper to employ.	Student notetakers often have little, if any, Deaf Awareness Training.
Student notetakers can usually assimilate into a learning environment better than qualified notetakers.	Student notetakers are not necessarily studying the same type of academic discipline as the D/deaf learner they are supporting.
Student notetakers, if they are studying the same discipline as the D/deaf learner, should have a suitable vocabulary and knowledge of jargon.	Student notetakers may not have the necessary knowledge about codes of conduct, confidentiality and boundaries.
	It is unethical to pay a student to attend their own lectures.
	They are unlikely to possess a notetaking qualification.

Considering the answers given to the question regarding whether or not the notetakers were qualified, it is interesting to note that 26 of the 30 SCRs regarded qualified and unqualified notetakers differently, with only

two learners regarding them equally. The negative experiences of a number of the co-researchers may have been minimised if the D\deaf learners had the opportunity to be involved in selecting the notetaker of their choice – only two of the 30 SCRs were given any choice and not a single D/deaf SCR was involved in the notetaker training at their institution in any way.

PCR4 was critical of professional notetakers and actually preferred being supported by other students:

It is extremely useful to have someone who is studying a similar subject as you as our notetaker. When I first started my course, the university employed professional notetakers who were paid five times more than the student. I found these professional notetakers not very good and up to my standards, simply because they were quite slow in Notetaking (depending on age) and lack concrete understanding in my subject as to what are the important concepts/explanations to write down which frustrated me. I made a complaint to student support and eventually they switched notetakers, usually to those studying the same course as me but in the year above or I would select a person from my actual course and copy their notes (p.38F).

There were mixed feelings amongst qualified notetakers and the co-researchers involved in this study as to whether or not it is important for the notetaker to have studied the same subject as the D/deaf learner they are supporting. However, a comment provided in previous research addressed a different perspective:

The only problem I ran into when your notetaker is a student, it's near impossible to avoid clashes of either timetables or priorities – Becca Viola (Thorley 2007).

Qualified notetakers are taught to précis information into manageable amounts of information, the content should be irrelevant. This is where the thorny subject of verbal hygiene may occur. If a qualified notetaker is very familiar with the academic discipline they are notetaking in, they may disregard salient information as being fundamental to the subject and thus the D/deaf student may miss out on, what could potentially be, very important to them. For example, a sociology or history graduate should know that *The Prince* was written by Machiavelli but a first year undergraduate may not know this. The graduate may assume that the first year is aware of this and not note it down. Conversely, it is very difficult to locate qualified notetakers with degrees in certain academic disciplines, such as science and engineering (Thorley 2009). This is echoed by PCR3:

Doing a scientific subject and seeking electronic notetakers there is a very limited availability to what there is available. As my electronic notetaker is more or less transcribing the information the lecturer is saying having some idea of the lecture is the minimum needed (p.39F).

PCR10 also made the following observation:

I think it would be very difficult to find support workers who have completed the same course as the student they are supporting (p.5F).

These comments are reflected in a study by the Deaf Education Support Forum (DEFS) who commissioned a survey for communication professionals in 2010. One of their respondents provided the following:

Difficulty in recruiting sufficient note-takers with appropriate subject skills, especially in science/engineering and some languages (e.g. Arabic, Japanese) at degree and postgrad levels (p.6).

It is both interesting and surprising that there was only one slight disagreement amongst the dialogue throughout the six months of the forum being active. PCR11 put forward the following thought:

All noat takers should have achived in the degree the student is studying for (p.4F).

However, PCR2 did not necessarily agree:

I'm not sure that I agree with the person who I think suggests elsewhere, that your notetaker should hold the degree you are working towards (p.3F).

PCR2 elaborated with the following comment:

Most people qualified at that level have sufficient internet and intellectual curiosity to be able to notetaker effectively in another subject. This implies that the notetaker should have genuine interest in the course s/he is notetaking for, otherwise it can be very boring and that is a real detractor from the role. I've had that happen and it was really difficult (p.38F).

PCR3 commented that it would be difficult for their electronic notetaker to blend in (p.19F) and is thereby clearly not a student. PCR4 suggested that notetakers and the D/deaf learners they support can mutually benefit from the working relationship:

I think notetakers actually appreciate the experience of working with a deaf person ...I actually make the notetaker feel comfortable by telling them all about deafness ...interacting with a deaf person is a positive experience for the notetaker (p.25F).

This comment prompted the following response from myself:

I like this sentiment – it can be a much healthier relationship if there are mutual benefits to both parties. I have learnt an enormous amount from working with different students across different disciplines, stuff which may not be in the literature and/or research (MT:25F).

. The age of the notetaker may also be a factor according to SCR16 who stated:

More training needed particularly older note-takers as they seem to patronise Deaf learners (p.29Q).

However, a co-researcher from a previous study may disagree with this ageist comment:

The notetakers I had at uni had had some basic training. The best one was older (over 25!) postgraduate who had previously worked as some sort of secretary or PA. she took wonderful notes and...was utterly wonderful at the job – Becca Viola (Thorley 2007).

This was apparently a concern of SCR16 as s/he stated in a different answer the following:

It will be interesting to see what the outcome is and hope the provision will improve in the future and note-takers to be more professional and aware of how to work with Deaf students without being patronising (p.30Q).

SCR21 explicitly states how inadequate notetaking support can be detrimental for both the university experience and their future prospects:

They (notetakers) need the education and training to do so otherwise there are serious consequences. Why should notetakers be accepted to work if they just pass a spelling and grammar test and perhaps a little briefing...there are serious consequences here too believe it or not and that is poor grades, a struggle to get that grade they know they can achieve with the help of the notes being supplied, a lesser chance of achieving the dream job they know they can achieve (p.30Q).

A participant in a previous study also commented on this issue. It was only after she had replaced an inadequate notetaker with someone more efficient that she 'realised then how much a notetaker can influence my grades' (Smith 2011). One recent example exemplifies why utilising other learners can be problematic. A Deaf postgraduate speech and language learners was assigned a student notetaker for their classes. The student notetaker was an International student, who was not fluent in English, and a first year engineering student. When the D\deaf learner complained, they were informed it was this particular notetaker or nobody. They were not made aware by the disability and dyslexia team that legally they were permitted to employ their own notetaker as long as the hourly fee was agreed with Student Finance England. However, a recent blog posting from a D/deaf learner does not view the notetaker/learner in a positive light. Their solution is the following:

If you want interaction – then you have to dump the third wheel! The ol' axiom of threes a crowd applies (www.limpingchicken:030814).

5.5 Theme Three: information and guidelines for lecturing staff

The third theme examines whether notetakers are deemed as professional, or possibly as paraprofessional or not remotely professional. This section also addresses the issue of whether or not the working relationship should include lecturing staff in the notetaking dynamic. Whilst professionalism is a contested concept (Evans 2008), it is a useful framework for this thread. Paraprofessionalism is even more ambiguous and could be viewed as:

teaching assistant, paraeducator, instructional aide, or educational technician (Nevin and Malian 2007:203).

I could locate very little literature suggesting notetakers are paraprofessionals. It would appear that notetakers are regarded as professionals or non-professionals – the possibility of qualified notetakers working as paraprofessionals has not been considered for a considerable period of time. Ogulsthorpe (1967; 1976) and Luckner (1991) are two researchers who classified qualified notetakers as paraprofessionals, yet nothing has appeared in the literature, both conventional and grey, in recent years. This is possibly due to the lack of funding in Deaf education (Ladd 2003). O’Keeffe, Slocum and Magnusson have written about staff involved in reading interventions (2011) whilst Giangreco, Suter and Doyle (2010) have reviewed recent research on teacher aides as paraprofessionals. This leads on to the status of notetakers within higher education. PCR2 provided the following thoughts:

...my best note-takers provide communication rather than simply content. I also understand the need for a proper, recognisable working status for notetakers but am uncertain as to how this is best achieved (p.17F).

Should notetakers be one of several types of student support worker who are then considered as a group...and become more established as paraprofessionals? Logically this might lead to some form of 'establishment' with all that it implies (p.10F).

An American colleague has suggested the following definitions are what separate professionals and paraprofessionals:

The standard definitions of a paraprofessional vs. a professional indicate that a professional has a degree, licence or certification in a specific field. ...professionals often belong to member organisations in their field, are subjected to requirements to maintain their licence/certification, and are expected to adhere to a professional code of ethics (www.SDP:2011).

Qualified notetakers in the UK would fit this remit, although it is recognised that professional licences in the UK are different to those in the United States. Research that I conducted in 2007 consulted thirteen qualified notetakers who were members of the Association of Notetaking Professionals providing evidence that qualified notetakers were almost certain to be university graduates, with six possessing a postgraduate qualification in tandem with their notetaking qualification.

Giangreco *et al.* (2010) have suggested that for inclusive education to be successful, team members need to collaborate yet the work of paraprofessionals is often misunderstood and understudied. Interestingly, Giangreco and Broer (2005) suggested that there is no data available to ascertain if students supported by paraprofessionals have better academic

outcomes than their peers without paraprofessional support. Osguthorpe (1976) posited that not all teaching staff welcome paraprofessionals in their teaching sessions for a variety of reasons. I have experienced this myself when one health lecturer complained about my presence as I was an 'outsider' and I was asked to leave the seminar – I refused. However, a personal communication with a D/deaf postgraduate learner suggests that notetaking is a two-way system:

Note-taking is two way, the input is the lecturer, the output is the team, the notes from the student and the note taker working together (SB:120808).

This echoes research conducted by Foster et al. (1999) who interviewed a D/deaf learner who suggested the dynamics of having a lecturer, interpreter, notetaker and the D/deaf learner themselves, resulted in the statement 'what I do is view us as a team' (p.231). Luckner and Muir (2002) have also suggested a team approach can be utilised to identify problems and the planning/adapting of teaching sessions to promote learner success. Previous research conducted by Power and Hyde (2002) and Lang (2002) have discovered D/deaf learners prefer teaching staff who are adaptable and flexible in their teaching practices to accommodate differentiated learning needs whilst research conducted by Miller (2008) reported how having D/deaf learners in a classroom improved teaching methods generally. This is an improvement on research conducted a few years previously which indicated teaching staff viewed the needs of D/deaf learners as the responsibility of student

services and therefore were not personally responsible for the success and/or failures of said learners (Foster, Long and Snell 1999).

For the co-researchers to have a positive experience in their learning environments, it is fundamental for teaching staff to be mindful they have a D/deaf learner in their audience. The co-researchers in both phases of data collection emphasised the importance of teaching staff to be Deaf aware, in addition to the notetakers undertaking Deaf Awareness training. One issue relating to notetakers working within higher education is our status. I have unearthed one study where a principal was being interviewed about his thoughts on professional educational interpreters and stated that he viewed them as 'expensive helpers' (Russell 2008:159). Regardless of whether or not notetakers are qualified, we tend to have a low status in universities as clarified by the previous comment. This is possibly as a result of notetaking support being under the remit of disability/student services which are generally regarded as pastoral rather than academic (Parker 2001). Historically, notetakers and scribes were regarded as 'professionals' (Mace 2002: 41) yet this role is being undermined by university learners being employed as support staff. Becky, a participant in research conducted by Thomas, made the following statement:

People say to me – you just help disabled people at college, as it it's minor, trivial kind of work, actually it's far more complex, it's not 'just' anything (2005:12).

5.6 Theme Four: information and guidelines for classmates

This particular thread addressed the issue of what other classmates should be told, if anything, about who the notetaker is and/or what they are there for. As suggested by PCR2 in a previous comment, the situations (lecture or seminar) of the learning environment may require different approaches:

In small group teaching I suppose you are really (often) trying to get interaction and engagement between students as well as students and staff. In those circumstances I think the notetaker is more obvious (one extra body among six is much bigger than one among 300) and it may not need to be spelt out (p.19F).

It is certainly much easier for a notetaker to assimilate themselves within a large lecture theatre. However, this is much harder to achieve in a small group and/or where students are expected to engage with each other. PCR3 commented that it would be difficult for their electronic notetaker to blend in (p.19) and is thereby clearly not a learner. Conversely, many students now use a laptop, netbook or tablet which would ensure an electronic notetaker would not be so visible. Only if the notetaker had tandem screens would they be more obvious. The thread continued with a posting from myself regarding whether or not notetakers should identify themselves when supporting a D/deaf learner in a learning environment:

One higher education institution gives all their support staff t-shirts which identifies them as support staff. Whilst I can see the practicalities of this idea, is it another form of labelling? I am thinking this may stigmatise the student further (MT:16F).

PCR2 responded with the following:

In a big formal lecture...I think it is OK not to make yourself known but if it's a teaching lecture then it does help that the lecturer knows, but does everyone in the room have to know too? I would not be too keen on labelling through things like t-shirts (p.17F).

PCR4 agreed with PCR2 on the particular notion of t-shirts:

I think it'd make the student more uncomfortable about the notetaker wearing a support staff t-shirt as it would visually label them as deaf. The notetaker may agree to it as it is a job but I personally wouldn't feel comfortable with the idea (p.18F).

My immediate response to this statement was the reason I posited the suggestion:

I tend to work with mature students and I also behave and dress like a student which enables me to blend in – to the extent that many students forget I am staff. However, this can be a problem as the lecturer also forgets and I do get asked the odd question. Thankfully, a shake of the head or pointing to my staff ID is all that is needed (MT:19F).

PCR4 was in agreement with PCR8 on this particular thread, although they suggested that not informing lecturers and other students 'makes the deaf student suffer' (p.26F). Deaf awareness training for classmates would benefit both the D/deaf learner and their peers, in breaking down communication barriers. Such training would prevent the following situation occurring to future sessions:

I didn't mix with hearing students. I found it too stressful having to explain myself and communicating with them. I found students preferred to be friendly with my interpreters (O'Neill and Jones 2007:67).

The above comment regarding classmates preferring to talk to the interpreters is similar to a comment I received in previous research:

I benefitted a huge amount by having a notetaker for my master's degree but got frustrated when teaching staff or other students asked the notetaker questions instead of me! – AmyLew (Thorley 2007).

This particular thread addressed the issue of what other students should be told, if anything about who the notetaker is, their role and function in the class. PCR8 suggested that having a notetaker can enable a D/deaf learner to engage with their peers:

When I first began new classes with new people, often I tended to get a few stares from people as soon as they realised I had a notetaker with me. At times, I found the staring extremely annoying, and it really was a put down at times. But often I'd make myself remember that they were probably staring out of curiosity, wondering how exactly the notetaker helps and so on. So therefore I do believe it is important for other students learn about the importance of the notetaker...that way they will understand things more and will develop some deaf awareness and will perhaps have the confidence to approach a deaf student with more ease, cos often some students can be shy or scared to approach (p.26F).

Whilst PCR4 was in agreement with PCR2 regarding the t-shirts, this co-researcher did not want their notetaker to blend into the rest of the student body. PCR4 always sits at the front of the class to enable them to lipread. They require the notetaker to sit next to them 'as a message that I do require support' (p.20F). Whilst PCR4 was joined at the front of their classes by their friends, PCR2 had a different experience:

Like guest 4 I always sit at the front to have maximum chance of lipreading but some of my friends are by nature back row people and I sort of let them off as I don't want them to feel obliged to sit with me it isn't a trouble for me as I'd rather that way than have someone making asides into my ear which you simply can't hear!! (p.21F).

The following discussion concentrates on the concept of notetakers being 'seen but not heard', and in some cases, not even seen in the case of stealth notetaking. Questions were also raised about how a notetaker does/does not identify themselves as a notetaker. In a recent interview, Desmond Tutu stated how 'hearing loss makes you feel pushed to the end of a group' (Lagnado 2010) which maybe perpetuated if other classmates think the notetaker is a peer of the D/deaf learner, rather than a communication professional. However, PCR2 viewed this situation as an opportunity rather than a problem:

I think this is an interesting area as, to me, its where deaf awareness can be increased by osmosis. I'm not sure how to tackle it but I do think for some students it's something totally new to start engaging with a deaf student. To learn how valuable a notetaker is and how the system functions in a very practical and low key way can be very helpful (p.24F).

Both PCR4 and PCR2 stated that it was 'important' (p.9F) that notetakers be seen but not heard. Research conducted by James and Hammersley (1993) concluded electronic notetakers were less obtrusive than manual notetakers, which may need to be a consideration for D/deaf learners who would rather not be identified as being attached to such in-class support. I dispute this sentiment as it is much easier to assimilate into a class with just pen and paper. Electronic notetakers need to a chair and table to

work effectively, preferable near a power socket in case there are any battery issues.

In summary, it is apparent that D/deaf learners would like to receive salient notes that are comprehensive and accessible, regardless of whether or not the notetaker is a qualified professional or a student notetaker. Whilst the majority of D/deaf learners sit next to the notetaker during the teaching session, either to read the notes in real-time or to reinforce why the notetaker is actually there, a number choose to remain anonymous.

RQ2: HOW CAN NOTETAKING PROVISION IN HIGHER EDUCATION BE DEVELOPED TO MEET LEARNER DEMAND?

The co-researchers provided a wealth of suggestions in terms of improving notetaking support in higher education for D/deaf learners. The suggestions included the characteristics they would prefer their notetaker to possess; the importance of D/deaf awareness training for staff and fellow learners; how notetakers could potentially act as a conduit between the D/deaf learner and their hearing peers; the importance of receiving a copy of the notes quickly; and suggestions as to how to manage expectations.

The word cloud below (figure 5.1 on p.31) is a synopsis of the question – *please state the five most important characteristics you require in a*

notetaker? Word clouds demonstrate a method of conveying text in a 'fast and visually rich way' (McNaught and Lam 2010:104). If higher education providers take these requirements into account during the notetaker recruitment, negative experiences may be minimised. This was the single instance where I 'cleaned up' the text (Mertens 2009). The results are interesting, in that the secondary co-researchers did not have access to their peers' responses, and yet a number of the characteristics were identical or very similar. Their answers were not guided by myself as they were not given a list and asked to select the most appropriate, nor guided by the answers given by their peers.

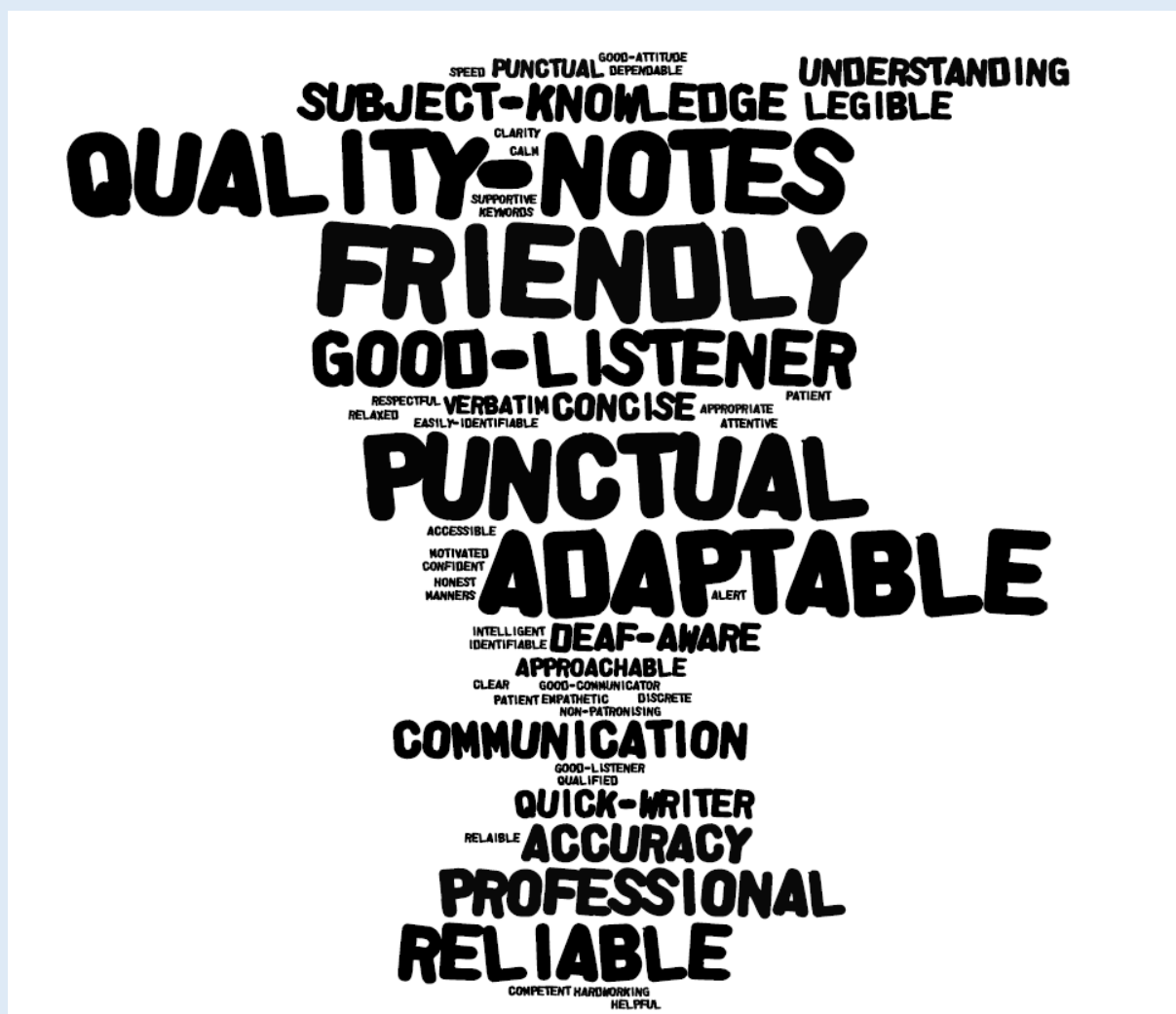


Figure 5.1 – word cloud of the five most important characteristics you require in a notetaker

The most popular characteristics in descending order are summarised below:

Table 5.2 – the most popular characteristics in descending order

<u>Characteristic</u>	<u>Number of times mentioned</u>
Punctual	11
Friendly	10
Quality notes	=9
Adaptable	=9
Reliable	8

I was surprised, and somewhat disappointed that *punctual* was the most prevalent characteristic put forward. Whilst a few primary and secondary co-researchers did mention time-keeping and/or non-attendance of notetakers, this answer possibly suggests that it has affected more co-researchers than initially thought. Some of the comments by the secondary co-researchers include:

SCR18 *(the notetaker) rarely turned up to lessons (p.15Q).*

SCR3 *be on time (p.23Q).*

SCR7 *punctuality/be on time for the lecture (p.23Q).*

SCR21 *reliability to turn up is probably the most important otherwise I get stressed and I can't concentrate in class as I mostly listen and use the notetaker as my writer (p.27Q).*

The characteristic *friendly* generated considerable comments from the secondary co-researchers, both directly and indirectly. However, a number of the SCRs provided additional comments which were a mixture of positive experiences and negative experiences, including answers to the direct question – *should you have friendship/rapport with your notetaker?* In answer to the question, 15 SCRs answered yes, two answered no, with the remaining answers being don't know/to some extent. The positive experiences included:

SCR7 *being amenable i.e. friendly where possible (p.23Q).*

SCR10 *happy to be involved in discussion with myself and friends (in and out of sessions (p.27Q).*

SCR27 *mine texted me and emailed me properly which was great (p.27Q).*

SCR5 *I feel having a notetaker should be someone you work well with, have good communication with and for them to be able to have a good relationship and rapport with me...to be able for them to support me in my work (p.28Q).*

The quality of the notes were fundamental to many of the SCRs, and examples were given of both positive and negative experiences of quality notes, inadequate notes, and in some cases, non-existent notes when SCRs were assigned unreliable notetakers who did not attend the agreed learning session. Good quality notes should be an expectation, not a bonus and can be essential for D/deaf learners accessing the curricula to achieve a high degree classification and/or impacting on the D/deaf learners experience of a university education. This is commented on by Blatchford, Bassett, Brown, Martin, Russell and Webster who have reported that appropriate training and guidance for support staff 'can have a positive role to play in student's academic progress' (2011:462). Whilst the co-researchers were concerned about the quality of their notes, the word 'qualified' did not rank in the top five requirements.

The issue of notetakers undertaking Deaf Awareness training was an issue to both cohorts of co-researchers. However, this is not necessarily an issue of whether or not the notetaker is qualified. The two currently (and for the past five years) nationally recognised notetaking qualifications differ in that the Signature notetaking qualification is explicitly for supporting D/deaf people whilst the Open College Network (OCN) qualification is for supporting disabled people, with little emphasis on Deaf Awareness. Notetakers with the OCN qualification could add to their portfolio by undertaking a separate Deaf Awareness qualification (as offered by Signature) to enhance their notetaking support for D/deaf

learners. One university in the north of England agreed to pay £25,000 to a hard of hearing learner on the grounds of disability discrimination. The anthropology undergraduate stated how her 'tutors and lecturers humiliated her' and 'failed to take her needs into account' (Hirsch and Lagnado 2010:6). Situations such as this should not be occurring for any university learner. Providing Deaf Awareness training for teaching staff has also been commented on by a number of the primary and secondary co-researchers and 96.7% of the secondary co-researchers answered yes to the question – *should teaching staff receive D/deaf Awareness training?* Whilst the D/deaf learners thought this to be a useful exercise, 75.8% of the secondary co-researchers informed the research that their teaching staff had not received the training. SCR27 suggested that lecturers should be able to 'ask stupid questions and get their prejudices out of the way' (p.30Q) whilst PCR2 stated they could provide 'a good number of examples of speakers who simply won't wear a microphone' (p.17F). However, as stated by one of the Limping Chicken contributors, lecturers may work extremely long hours to fit in their teaching and/or research. This could be remedied if Deaf Awareness was incorporated in to teaching qualifications such as the postgraduate certificate in education (PGCE) which many institutions are now expecting their teaching staff to obtain.

Notetaker training courses, regardless of qualifying body, request that notetakers do not accept assignments they feel they are not capable of

undertaking. However, that may not be the case for student notetakers, especially if they are studying a different discipline. It would be good practice for the lecturer to provide copies of handouts (paper or electronically) for notetakers *before* the teaching session to enable them to familiarise themselves with any discipline specific theorists and/or vocabulary. In addition to providing readable notes, Wade (2002) states the quality of the notes provided by a notetaker is dependent on the ability to 'understand and summarise the information' (p.21). This was also an issue from a D/deaf learner, as stated in the below blog:

I also had one lecturer who would not do deaf awareness like facing the class or provide me with any extra support (notes in advance, extra reading, summary information) and insisted on not taking mid-2 hour session break either. His classes did my head in, so I simply stopped attending (www.limpingchicken.030814).

These comments echo previous research conducted by O'Neill and Jones (2007) who undertook a study assessing the experience of D/deaf learners regarding their transition from further education to higher education:

All my lecturers welcomed me if I approached, about certain issues concerning me (female, uses speech)

I found some tutors had a bad attitude toward me because they did not understand my Deafness (female, uses BSL) (p.64).

All parties involved in the classroom need to be mindful of these potential barriers and awareness training, as suggested by PCR4 and 76% of the

SCRs who responded yes to the question – *should your classmates receive D/deaf awareness training*, may be a useful strategy for the future. As 89% of the SCRs stated that their classmates had not received such awareness, there is a significant disparity in what the D/deaf co-researchers would benefit from, and the actual current situation. SCR5 provided the following statement to demonstrate how it might have been beneficial for their hearing classmates to receive such training:

A lot of hearing students I work with don't have full understanding of how to approach to me or communicate with me they tends to get nervous. But once they get to know me for a long period of time they start to recognise my needs. Think they should all have deaf awareness training. There are few students in my course that I have known for two years have not bothered to communicate with me! (p.21Q).

SCR27 responded to this question with a more extreme personal experience:

My classmates needed deaf awareness training and they didn't get any. I was bullied and harassed as a result of not being able to do phone calls and given abuse for disability related illness absence. I avoided the issue by refusing to do groupwork and having some work changed after some incidents of harassment. I would have appreciated them being told why I seemed to hear some things and not others or that it is EXTREMELY tiring being deaf at university (p.22Q).

Whilst this thread focused on information for teaching staff, a number of primary co-researchers suggested disability support staff should be trained in D/deaf awareness:

I think it would be useful to include the disability support office into the guidelines. I have found that they do not understand the extreme difficulties and barriers which students face if the correct support is not in place as soon as they start their course. If they were made to be more

aware of the needs of the person, and the requirements they have of their support worker, it would be much easier for both parties to become relaxed with each other (PCR10:1F).

PCR8 suggested that having a notetaker can enable a D/deaf learner to engage with their peers:

I like the idea of other students talking to my notetaker in terms of 'who are you?' and 'what do you do?' as that's important in raising deaf awareness and helping others to understand and learn about Notetaking (p.30F).

PCR2 commented on the dynamics between the notetaker, learner and teacher, observing:

To me, building good relationships with teachers is critical so that you become a sort of threesome! (p.42F).

PCR8 suggests the notetaker can act as a conduit between the D/deaf learner and their peers, which may, or may not, have a positive effect on the dynamics of the learning environment. PCR2 extended this by drawing from their personal experience:

I think though that it is important that, as a student, that your relationship with the notetaker doesn't hinder your engaging with other students. It can add a dimension with a good notetaker but it doesn't work so well if the notetaker takes up independent engagement with other students or becomes an independent member of the group. I've had this happen a couple of times and found it could just be a bit awkward (p.29F).

Your sentiments mirror my own on this subject. Notetakers (and other support staff) can act as a barrier between the student we are supporting

and the rest of the group. I have been viewed as part of a double act on a number of occasions (MT:29F).

One of the comments provided by SCR27 included:

My notetakers were ALL very good at the professional boundaries with my tutors and classmates (p.22Q).

The experience of SCR27 contradicted research conducted in Australia which ascertained the majority of hearing classmates were prepared to assist their D/deaf colleagues although there was evidence of a minority of incidents involving name-calling and ostracism from a sample of 151 D/deaf learners (Powers and Hyde 2002).

A number of the secondary co-researchers provided comments about the delay in receiving the notes from the notetaker. This was generally when a manual notetaker was required to type up the notes for the students – a practice which is widespread and not cost-effective. More DSA money is spent unnecessarily which is another benefit of diginotes as the student can take the paper copy with them, to the following seminar, for example.

A number of the comments include:

SCR18 email the notes straightaway, once typed up (p.25Q).

SCR7 notes given to the student on time and not weeks later (p.27Q).

These comments were echoed by a participant in research conducted by Smith:

I was supposed to get my notes regularly, but the person always postponed...that was frustrating. My notes were sometimes two weeks late! So I asked another person if I could borrow her notes and I stayed up all night copying them. Her notes were much better. They were more organised and easier to understand – Becca (2011:17).

It is also interesting to acknowledge a number of studies accessed by Stinson *et al* (2009) which suggest printed text, rather than handwritten notes were preferred by D/deaf recipients of the notes, in addition to improving their retention of the information. It is therefore possible that handwritten, manual notes are not the most suitable to support a D/deaf learner. Therefore, it is likely that manual notetakers who refuse to adopt technology will not progress from 'proficient' to 'expert' (see p.47) as they are not adapting their practices to meet the needs of D/deaf learners.

An additional factor regarding the notetaker/learner relationship is how to manage expectations and ensure the learner is receiving the support they require, rather than the notetaker making assumptions and/or supporting every learner in the same way. This could be minimised in a number of ways:

- Providing D/deaf university learners with self-assertiveness training (PCR2 p.15F) may enable them to engage more effectively with notetakers, teaching staff and their peers.
- Fourteen of the SCRs believed that they would benefit from training as to how to work effectively with a notetaker (p.9Q).

- SCR20 suggested providing potential notetakers with a list of questions to ask the learner as to how to support and understand their needs (p.15Q).
- 83% of the SCRs would like the opportunity to meet their notetakers before any teaching sessions (including lectures, seminars, one-to-one tutorials, field trips and exams) began (p.14Q). This may be more important for first years as they are 'starting out on a new venture in their education' (PCR10 p.5F).
- The majority of the co-researchers (n=24) would prefer to be supported by just one or two notetakers during their studies (p.11Q) as this provides continuity (PCR10 p.5F), and therefore minimises the stress of the learner
- 70% of the secondary co-researchers were not given the choice as to whether they were supported by a manual or electronic notetaker (p.14Q).
- Provide training for the D/deaf learners as to how to get the best out of their notes (McCrae and Turner 2007).

RQ2b: WILL NOTETAKING SUPPORT FOR D/deaf LEARNERS BE NEEDED IN THE FUTURE?

As this study is an educational/sociological hybrid, advances in technology cannot be ignored. Lecture capturing and remote captioning are two

possibilities. One of the criteria of being a professional is the ability to adapt and change current practices. Manual notetakers, who utilise a traditional pen-and-paper method of notetaking will need to adopt technology to meet the needs of the learners they support.

Advances in software may alter the method of notetaking in the future. Panopto is one such technological advancement which is already in place in a number of universities in the U.K. and U.S.A. The software has the following abilities:

- Record and webcast – capture presentations and lectures. Quizzes and other web content can be embedded to create a more interactive learning experience.
- Share and manage – the recordings are uploaded to a secure platform which can be accessed by learners.
- Search and view – you can access your video library and inside the videos for any spoken word or written word from a PowerPoint slide (www.panopto.com).

A learner from a U.K. university reported the following:

My routine with lecture capture consisted of keeping a note of what part of the lecture I'd thought interesting or required special attention, and I'd go through the lecture recordings each day and add notes to the relevant sections of the recording. That way I'd have easy access to the specific place in the recording at a future date if I needed to look up a specific point. At the weekend when I reviewed my notes, I'd go back to the sections I'd highlighted and watch back until I was satisfied. The ability to jump about in

a recording is great. I don't know anyone who hasn't wished to rewind a lecturer on at least one occasion (www.panopto:120814b).

Currently, Panopto has no facility to précis information from audio and video although their web team are considering such a facility as they are now aware of the changes to the Disabled Students' Allowances'. It is possible that more universities will buy into services such as this to replace manual notetakers which will no longer be funded by the DSA which entails the university taking financial responsibility of all manual notetakers.

Software such as this is also an example of how universal design can benefit all learners. Whilst a transcript of the presentation is available for an additional cost, transcripts are not necessarily D/deaf friendly. The D/deaf learners could be saturated with information. However, notetakers could be employed to draw out the salient points from the transcript and/or video recording.

Remote captioning is a variation of notetaking, although closer to the provision supplied by a speech-to-text-reporter or palantypist. Remote captioning delivers real-time subtitles via an electronic notetaker and as with software such as Panopto, a transcript is available (www.notetext:210814). A major advantage of this type of notetaking is the notetaker is not physically present and therefore does not impact on

the class dynamics. However, with both lecture capturing and remote captioning, technology and a strong Internet connection is required.

D/deaf awareness training would be an economical and practical solution to ensuring D/deaf learners of the future feel more included in their learning environments. In addition, hearing learners who have received such training will be equipped in the future to work with any D/deaf colleagues more effectively. A recent blog conversation which was started by an (anonymous) notetaker including the following statement:

As professionals, I believe that we all have a part to play; not just in ensuring that Deaf students get a good education, but also that they enjoy the student experience...as they are massively isolated (www.limpingchicken:030814).

Whilst it appears that manual notetaking is slowly being eradicated in higher education (the recent changes to the four categories of non-medical helpers and the proposed changes to the Disabled Students' Allowances), notetaking *per se* in a more technically-advanced method, will be required for a number of D/deaf learners in the foreseeable future. Higher education providers can look at how traditional learners take their own notes for example through the use of netbooks, tablets and smart phones as ways of providing electronic copies of manual notes rather than the traditional method of laptop with specific notetaking software. Lecture capturing equipment and software such as Panopto will provide post-lecture material in a transcript but not as salient, concise notes. The latest technology which may be a way forward is Google Glass (surely to be

followed by competitor's versions). A Deaf Awareness training session in Preston demonstrated speech to text captions where the captions can appear as a Glass screenshot in the top right hand corner of the lens (for the notetaker) and screencast on a mobile phone (for the D/deaf learner) (www.adept:02/08/14). A Deaf employee was given the opportunity to trial Google Glass for a team meeting and responded with the following:

My first reaction was amazement. The captions scrolling across the screen in front of my eye are fast, word perfect, with a tiny time delay....it is better than live subtitling seen on television. I can follow everything that is being said in the room....i can look around, listen a bit, and read the subtitles I missed (www.bbc:070814).

5.7 Personal reflection of the data collection

Personally and professionally, the most negative comment throughout the phases of data collection was the following:

This questionnaire contains high standards of English and I am sure most deaf people will find it hard to understand the questions (SCR31:15).

This comment troubled me for approximately six months. I was aware at the beginning of the study that text-based methods may not be the most suitable, especially as 12 of the secondary co-researchers regarded themselves as *Deaf*, which suggests sign language was their preferred/native language. The above statement made me question the validity of the entire thesis, and whether or not to continue. However, my second epiphany of this entire doctorate occurred during a conference I was attending and listening to a communication professional discussing

her research. She explained that it was unlikely for Deaf learners to be allocated a notetaker whilst at university if they did not have proficient English skills. This made perfect sense and was the impetus I needed to complete the thesis. Conversely, the most positive comment throughout the two data collection phases was as follows:

'I am thrilled research is being done on all this issues. There isn't enough awareness at my university' (SCR21:19Q).

CHAPTER SIX – OUTCOMES OF THE RESEARCH

The notes are the property of the person for whom they were taken
(Association of Notetaking Professionals 2006:8).

This section outlines the three outcomes of the study in turn. The initial intended outcome was to produce the *Information and Guidelines –IaG*. This was the intention for undertaking the entire study as there are no such comprehensive guidelines in place in the U.K. The first unexpected outcome of the study was the formulation of the notetaking filter model which is a schematic to demonstrate which information the notetaker decides to note down. The third, and final outcome was also unexpected. Drawing on my personal experience, and comments provided by the co-researchers, a template for notetakers has been devised.

6.1 The Note Optimising Thorley Effectiveness (NOTE) – Information and Guidance (IaG)

My hope is that the negative experiences of notetaking support for D/deaf learners are eradicated altogether, although it may be more realistic to aim to minimise such experiences. Positive experiences will benefit individual D/deaf learners but may also impact on the reputation of institutions, who in turn may gain a wider, excellent reputation for supporting D/deaf learners in the future. Nevertheless, D/deaf learners may require additional support yet can be let down by a variety of obstacles. Whilst I am powerless to change the practices of HEI support

for D/deaf learners, the learners themselves could use *NOTE-IaG* as a tool to empower them to argue it is a right to access education. Fundamentally, a successful partnership between a notetaker (or any other communication professional) and the D/deaf learner/s they support is dependent on 'open and friendly communication which is of utmost importance' (Brumberg 2008:10). The resulting *NOTE* information and guidelines can be found in Appendix 9.

6.2 Notetaking Filter Model

One of the primary skills of professional notetakers is the process of filtering out peripheral information known, in the notetaker's opinion, as 'verbal hygiene' (Cameron 1995:23). Whilst it is an extreme example, the field work undertaken by Mace (2002) provided a comment from a scribe personally known to her who stated that 'I was the scribe and I realised I was manipulating information' (p.152). The term 'verbal hygiene' is familiar in linguistics where there is some form of interpreting or translating. The first level of decay may occur between the lecturer and the notetaker whereby the intended information is misconstrued and/or misunderstood (McCrae and Turner 2007). The second level of decay may occur within the resulting notes as a result of the notetaking filtering out information and/or misunderstanding the information relayed. The difference between verbal hygiene and conventional decay is fundamental. Verbal hygiene is a deliberate choice of the notetaker as to what s/he decides to consciously omit whilst decay is unconscious, the

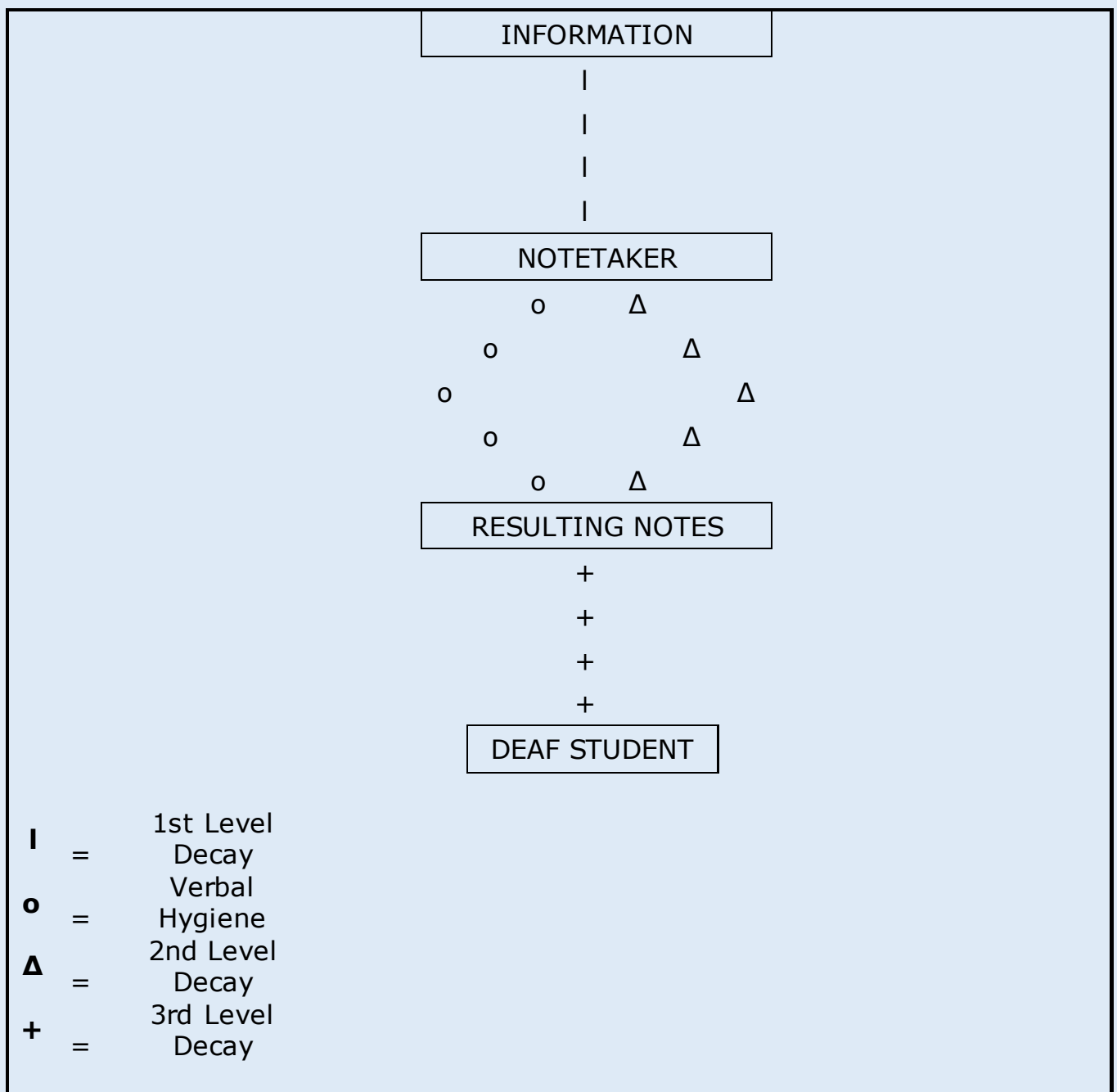


Figure 6.1 – Notetaking Filter Model for deaf learners.

information has been misconstrued and/or misunderstood. The third level of decay can occur once the D/deaf learner has read the notes. Combining verbal hygiene and message decay can be viewed as the notetaking filter

model (p.148) as adapted from the decay model devised by McCrae and Turner (2007:111). This raises a number of ethical implications to the role (Mace 2002) which are discussed further in the 'notetakers and ethical issues' section of the literature review.

Whilst the notetaking filter model contains three levels of decay, the information decay can be exacerbated where the D/deaf learner is required to lip read the lecture and/or watch an interpreter/CSW, resulting in four levels of message decay.

6.3 The Notetaking Optimising Thorley Effectiveness (Note) Template for Notetakers

Whilst the intended outcome of this study was to produce a set of comprehensive guidelines for notetaking support for D/deaf learners in higher education, a second unexpected outcome emerged over the two phases of data collection – the NOTE template (see Appendix 10). A number of primary and secondary co-researchers commented on how difficult and time-consuming it was for them to be given their notes in different formats. Notetakers, as with conventional learners, tend to create their own format which suits them individually. McCrae and Turner (2007) have also stated the importance of adapting the layout to suit individual preferences. In this context, the *NOTE* template is not a panacea but a potential solution for D/deaf learners who are supported by numerous notetakers over the course of their degree/s. In addition, the

notetaker can adapt the template to suit individual preferences by altering the font, size of font, colour of text, etc. To address this issue, a template has been devised which notetakers can access freely from the University of Greenwich website. Due to the design of the template, D/deaf learners are encouraged to add their own notes to those provided by the notetaker which may enhance their own 'creativity, evaluation, reflection and independence' (Brindley *et al* 1992:212) whilst Lang (2002) posited learners who revisited their notes 'facilitated recall and recognition' (p.272). This would also enable D/deaf learners to become co-producers of their own learning and take more responsibility for their own learning (Saulnier, Landry, Longnecker and Wagner 2008). The white spaces of the template could also be reworked with the aid of a language tutor (McCrae and Turner 2007) and/or Teacher of the Deaf (ToD). This was also suggested by delegates at the *adept annual conference where the *NOTE* template was debuted (Thorley 2014), independently from the earlier suggestion from McCrae and Turner. Whilst research conducted by Ryan (2001) was assessing the six metaphors of notetaking approaches adopted by learners making their own notes, the reporter metaphor (the most successful metaphor for later recall) could be adopted by D/deaf learners who utilise the white spaces in the template. The reporter metaphor views the information provided by the lecturer as one important source of information which needs to coincide with other resources (Ryan *ibid*). The D/deaf learner could utilise the white spaces to supplement the information provided in the learning environment and therefore, aid and

encourage independent learning. Unlike a participant in research conducted by Richardson and Woodley 2001 who stated:

I tend to read very little beyond what's required for assignments – SB3 (p.81).

As Richardson and Woodley (2001) observe, notes taken by a notetaker should not be viewed 'as a substitute for the notes that deaf students make themselves' (p.62). This is exemplified in the following statement from the Ryan study:

Students can be expected to increase their ability to comprehend and retain information by a factor of two or three if they have some organisational framework within which to integrate the information (2001:305).

One of the purposes of a university education is to instil higher thinking skills and this template may assist D/deaf learners in succeeding to be 'discoverers and constructors of their own knowledge' (Saulnier *et al* 2008:170) rather than just recipients.

CHAPTER SEVEN- CONCLUSION AND FURTHER RESEARCH

7.1 Conclusion

The intention of this study was to gather experiences of how notetakers support D/deaf learners in higher education. By consulting D/deaf learners themselves, the research has enabled me to view notetaking support from the perspectives of the learners, in addition to my own experience of providing such support. The research was not intended to be a criticism of notetaking support, but to provide an insight into an under-researched topic. As the number of D/deaf learners are increasing every year it would be sensible to consult with D/deaf learners to ensure they receive the support they require, and are legally entitled to.

The use of a transformative framework, which places emphasis on the co-researchers (the D/deaf learners), recognises how their experiences have contributed to a greater understanding of this little-researched area of higher education/Deaf Education Studies. As there are currently no such guidelines available, it is proposed that this study offers a useful way forward.

The experiences of the D/deaf learners were explored through a phenomenological lens and were central to the research, providing a wealth of both positive and negative examples of notetaking practices in UK universities. The nine primary co-researchers and the thirty secondary co-researchers provided honest accounts of how notetaking support has been of benefit, but additionally how detrimental poor practice had

affected them as individuals. The positive experiences marginally outweighed the negative experiences which provide evidence that good practice is already in place. The sequential nature of the data collection provided two arenas for D/deaf learners to contribute their experiences in a non-threatening environment. The co-researchers were geographically dispersed throughout the UK and were undergraduates and postgraduates, including at least one primary co-researcher who possessed a doctorate.

Whilst the literature review provided a minimal amount of empirical knowledge on notetaking support for D/deaf learners, the review was supplemented by available 'grey' literature such as newspaper articles, blogs, web sites, magazine articles, conference proceedings. Historical and international examples were also identified to provide a wider range of literature which is useful to ascertain that practices involving D/deaf learners have improved, and that the UK is possibly one of the leaders in this field.

The intended outcome of the research was to compile a set of guidelines to ensure D/deaf learners receive the support they view as important, rather than the support currently provided. The two research questions were derived from previous research and information gleaned from the literature review to ensure the experiences were pertinent to current, and future practices. As stated in the study itself, the *Notetaking Optimising Thorley Effectiveness Information and Guidelines* - NOTE IaG - will be

freely available online for anyone with an interest in this subject and/or anyone who needs an overview of notetaking for D/deaf university learners, whether they are D/deaf learners themselves, novice notetakers, classmates of D/deaf learners or teaching staff. It is hoped the guidelines will minimise negative experiences and replicate good practice for future D/deaf learners.

In addition to the NOTE IaG, there were two additional, unintended outcomes. The notetaking filter model, adapted from the decay model posited by McCrae and Turner, attempts to illustrate the information filtered out by notetakers, both consciously (verbal hygiene) and unconsciously (decay). This model is further complicated when the D/deaf learner is also being supported by different communication professionals such as interpreters or communication support workers. The filtering/decay issue raised ethical considerations, such as how notetakers decide what is salient information and what constitutes unimportant information. The ethical issues are also apparent when the D/deaf learners are supported by fellow students, rather than professional, qualified notetakers. Is it ethical for such students to get paid for writing notes in lectures, seminars, etc., when they themselves will also benefit from the notes?

The ethical elements of the study also led to the question as to whether qualified notetakers are professional; non-professional or paraprofessional. I would argue that qualified notetakers are professional

or paraprofessional. We are professional but we work alongside other education staff, such as lecturers and communication support workers. As claimed by Hodson and Sullivan (2011), paraprofessionals have little autonomy, yet substantial responsibility. Most sociologists of the professions would argue this makes them paraprofessional as professional autonomy is self-regulated by a professional body (such as the Law Society or Royal College of Nursing). Conversely, neither teachers nor lecturers have a stand-alone professional body, yet we tend to regard such work as professional. Notetakers, on the other hand, do have such a body, the Association of Notetaking Professional but have limitations regarding inept/inappropriate notetakers being 'struck off'. Consequently, the issue of notetakers being professional or paraprofessional leaves me in no doubt, and it is possible that we will fluctuate between the two as our profession evolves and changes, as will the definitions of what constitutes a profession.

The second unintended outcome was the *Notetaking Optimising Thorley Effectiveness Template for Notetakers* - NOTE template for notetakers which will also be freely available to anyone who is interested. The template was already being utilised before this research commenced but has been modified, and justifications have been provided to ensure the template is used to optimal benefit. The template encourages the D/deaf learner to adopt a 'reporter' metaphor and add their own notes after the

lecture and/or seminar to compliment the information provided by a lecturer. The template can also be used independently for the D/deaf learners to make their own notes from journal articles, documentaries, etc. to broaden their knowledge of the required subject matter. A set of template notes may also be of benefit for a D/deaf learner who is additionally supported by a Teacher of the Deaf. The learner and the teacher could work through the notes together to ensure the information is understood. This may be of particular benefit to learners who do not regard English as their first language.

Technology has fundamentally changed the face of notetaking support for D/deaf learners. Originally the first D/deaf university learners had no option but to rely on the goodwill of their classmates to provide lecture notes. The introduction of professional manual notetakers changed the landscape which was altered with the introduction of electronic methods of notetaking. The introduction of digipens and handwriting software has also altered notetaking practices further. The introduction of software such as Panopto will also change the structure of support for D/deaf learners, and is likely to become more widespread, especially given the proposals to change the support provided by the Disabled Students' Allowances. The decision by Student Finance England to categorise manual notetakers as unskilled, may also have a detrimental impact. If technology is not readily available, we may see a backward stance of D/deaf learners relying on the goodwill of their classmates to access notes

from lectures etc. This is a contraction to a comment provided by Mace (2002) who states 'transcribing the spoken word is a demanding job' (p.45).

Whilst the future of notetaking is unknown, the following comment is the reason I am so passionate about the subject:

'I've worked for everything I've got – and you know what? It works, because – unless things go very very wrong in the next month – I'm actually due to graduate with a first. And a large part of that is due to the support I get from both my terps, and my notetakers. I don't think you can pay them a better compliment than that' (www.limpingchicken.030814).

7.2 Personal reflection of the study

The fundamental reason I undertook this study was to enable a variety of people within higher education to understand why D/deaf learners may require a notetaker at some stage during their university education. However, I soon realised there was not a freely available document which provided information as to what/who/where/why/when/how notetakers undergo their work. Undertaking this research also made me realise I have been guilty of making assumptions. However my assumptions were challenged through consulting with the co-researchers, since it is their experiences that have shaped the final outcome. The template and the notetaking filter model were not intentional outcomes as they evolved organically during the actual research. The guidelines produced as an outcome of this study will hopefully fill an important gap. It is not apparent from reading this thesis, that I no longer earn my income from

notetaking. Ill-health (not caused by notetaking) has forced me to enter a different career. However, I am still involved with the Association of Notetaking Professionals and the Association of Deaf Education Professionals and Trainees (formerly NATED) to ensure I am still involved in a role I am still passionate about.

In addition, it has been noted by a number of people who have had access to this thesis so far that the style of writing is almost clinical, for what is, in essence a narrative study. As I have been working as a notetaker for some years, my duty was to provide learners with salient information, without padding. This has affected my everyday writing, and it is an automatic response to convey information in very few words.

7.3 Further Research

There are a number of opportunities to take this study further:

Data collection: it would be interesting to undertake the first phase using video-capture technology specifically for signing Deaf learners. The questions and answers therefore, would not then be texted-based, and possibly easier for the co-researchers to access. Funding would be required to pay for interpreters (for both signing the questions and interpreting the responses), which is why it was not used for this particular study.

Cohort: the study could be replicated for other learners who utilise notetakers for their university studies. The experiences of physically

disabled learners; learners with specific learning difficulties (such as dyslexia and autistic spectrums); learners with mental health difficulties; and learners with chronic health conditions, may vary. This issue was addressed by SCR21 who provided the rather extreme analogy of a pharmacist would not prescribe the same medication to someone with a cold and a person with cancer (p.30Q). The study could be stand-alone or as a comparative study to this one.

Non-linear notes: to my knowledge, no notetaker provides non-linear (mindmaps) notes for the learners they support. Research conducted by Makany, Kemp and Dror (2009) discussed how students utilising non-linear notes outperformed students using conventional linear notes on multiple measures by an average 20%. Due to the nature of non-linear notetaking, this method may benefit D/deaf learners who have English as their second language. It is possible that a number of D/deaf learners are already using non-linear note formation, as implied by a participant in Richardson and Woodley's study:

It's helpful for me to 'map out' a new topic for myself by seeing how the ideas fit together (2001:81).

Non-linear notes could be produced manually and/or electronically (there are a number of software packages available) to suit the recipient.

NOTE template: single or multiple studies could be undertaken to ascertain if the template is useful. The intention, should adequate funding

be available, I hope to establish feedback for the *NOTE* information and guidelines and/or the *NOTE* notetaking template for notetakers. The funding would be required as I would like to change the data collecting method to one that is sign language based rather than text based for Deaf learners, in addition to an electronic text format for deaf learners. It would be beneficial to gather data from both cohorts to establish if their access requirements are the same, or have similarities. It is possible that the two cohorts maybe completely different. In this case, the information and guidelines, and possibly the template will be amended accordingly.

All of the above possibilities would enable me to modify the *NOTE - IaG* and the *NOTE* template in response to the needs and requirements of the learners currently supported by notetakers. The IaG and template may also need to be altered to take into account the changing landscape of higher education and/or the advances in technology. It is my intention, hopefully working with co-researchers, to revisit, and revise the *IaG* every five years to ensure technology and the changing educational landscape are recognised.

CHAPTER EIGHT – CAVEAT

This research was undertaken before the recently announced proposed changes to the way the Disabled Students' Allowances (DSA) is distributed from September 2015 (www.gov:010514). The proposed changes to funding may radically change the support available in higher education for all disabled learners, including those who are D/deaf and require academic support.

Manual notetakers will no longer be funded by the DSA (www.ndcs:12/06/14) which will affect the support currently provided for D/deaf learners. The National Deaf Children's Society (NDCS) is one of the many organisations who believe D/deaf learners may be denied the support they require to complete their higher education, or may discourage D/deaf learners from applying. Higher education providers (HEPs) will have to provide the funding for such support which is difficult to sustain for many institutions who are already facing financial cuts. The NDCS is concerned the onus on universities will result in a 'postcode lottery of inconsistencies and inequalities across different universities' (www.ndcs:12/06/14).

The following statements have been made by various organisations and individuals regarding the proposed cuts:

- The Government are planning to make cuts to vital funding such as the 'Disabled Student Allowance' (DSA) for dyslexic and disabled students. This is a life line for students in Higher Education, as it provides much

needed access to resources such as specialised one to one tuition as well as assistance with resources and travel expenses (www.hscf.030814).

- Things are better than they used to be – but they can still improve. Sadly (due to funding cuts) things are likely to go backwards, and this is something we need to fight (www.limpingchicken.030814).
- Proposed changes to funding announced by David Willetts, the Minister for Universities and Science will dramatically impact on the recruitment, retention and achievement of many disabled students and demands an urgent re-think (www.nadp.140414).
- For many disabled students, DSA is vital to levelling the playing field by supporting them to complete their university courses (www.nus.030814).
- The Disabled Students Allowance provides a lifeline to the students who receive it. Cutting a fund that improves access to higher education at a time when students are already facing a higher cost of living risks leaving disabled students behind (www.oxfordstudent.030814).
- Proposed cuts to the Disabled Students' Allowances in 2015 may lead to higher drop-out rates, lower grades and students struggling without support (www.theguardian.020714).

One victory regarding the proposed changes has been accomplished by individuals and organisations, including some of the above. The government has announced the intended proposals will not come into force until September 2016. However, the proposed changes may result in the following conclusion:

The failure to prioritise needs realistically or to genuinely recognise people's individuality sometimes leads to competition for resources which badly damages the educational chances of some individuals (Corker 2007:146).

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APPENDIX ONE – NETIQUETTE AGREEMENT

Forum Discussion Netiquette

These guidelines have been modified from information provided by the University of Greenwich¹, Microsoft² and the British Psychological Society³.

As this is a restricted forum, it is unlikely that contributors will be provocative without good reason, e.g. to illustrate a point. However, if you have any concerns regarding the discussions, please contact the *administrator* (y.i.tainsh@gre.ac.uk) or the *lead researcher* (m.thorley@gre.ac.uk).

Please read and abide to the following:

Protect your privacy – do not give out your full name. Use either your first name or your first name and initial if you have a popular name.

Be respectful and courteous.

Do not ask for the full name of others.

Do not use language which some people may find offensive.

Do not use full names of staff or fellow students, nor the name of your university.

Avoid using capital letters to emphasise a point – this will be understood as shouting.

Check your grammar and spelling.

To avoid misunderstandings, speak plainly.

Be even more careful with humour than you would be in person.

Do not use this forum for advertising purposes.

¹http://portal.gre.ac.uk/cp/render.UserLayoutRootNode.uP?uP_tparam=utf&utf=/cp/jsp/google.jsp?as_sitese arch%.

² <http://www.microsoft.com/protect/computer/basics/netiquette.msp>.

³ http://www.bps.org.uk/downloadfile.cfm?file_uuid=71751D53-1143-DFDO-7E.

The content of messages should stay within the topic or a new thread should be started.

Contributors should only state their own views. If you are sharing anecdotal evidence (e.g. something which happened to someone you know), please make this clear in your posting.

Avoid sarcasm as this is difficult to do electronically.

If you are unaware of how secure your hardware and software is, do not put anything in a posting you would not put on a postcard.

You can use emoticons (smileys) but avoid text jargon such as GR8, LOL, etc.

Respect different cultures and lifestyles.

If you are caught in an argument, keep the discussion focused on issues rather than the personalities involved.

If you have posted something and do not see it immediately, do not assume it has failed and re-post it.

APPENDIX TWO – CONSENT FORM

Participant Consent Form

TITLE *Exploring the Experiences of D/deaf University Students who Utilise Notetaking Support.*

LEAD RESEARCHER Melanie Thorley m.thorley@gre.ac.uk

ASSISTANT RESEARCHER Andrew Velarde
a.verlade@kent.ac.uk

LEAD SUPERVISOR Professor Patrick Ainley
p.ainley@gre.ac.uk

1. Have you read the information sheet about this study?
YES/NO

2. Have you read the netiquette information? YES/NO

3. Do you understand you are free to withdraw at any stage:
 - At any time? YES/NO
 - Without giving a reason for withdrawing? YES/NO
 - Without affecting your future at your university?
YES/NO

4. Do you agree to take part in this study? YES/NO

APPENDIX THREE– RECRUITMENT EMAIL FOR PRIMARY CO-RESEARCHERS

ADVERT FOR CO-RESEARCHERS

Dear student/graduate

I am about to start my research exploring the experiences of D/deaf students who have used notetakers at some stage in their university studies. I am hoping that a number of D/deaf students will be my co-researchers in assisting me with compiling some guidelines. Much research surrounding D/deaf students have been criticised for not involving the students themselves in the design process. Whilst I have been a qualified notetaker for ten years, I do not have experience of working with notetakers and this is why I think the students are the experts.

A discussion board will be used to generate information and possible questions will be used in a questionnaire for other D/deaf students to complete. The data collection will be for just over three months (ending 30th September 2008) and you can access the discussion board when it is convenient for you.

If you are willing to contribute your thoughts and experiences, please email my ICT advisor Yana (y.i.tainsh@gre.ac.uk) who will sort out a guest log-in for you. To satisfy my Ethical Approval, co-researchers will need to read some guidelines and complete a consent form – all of which is electronic

Many thanks for your time

Melanie

APPENDIX FOUR – NOTE *IaG*

Notetaking Optimising Thorley Effectiveness: Information and Guidelines

- NOTE *IaG*:

The NOTE *IaG* are separated into 5 distinct categories:

1. Information about notetakers generally – who are they, what do they do, where do they notetake, how do they notetake and when?
2. Guidelines for D/deaf university learners who are supported by notetakers.
3. Guidelines for notetakers working within higher education supporting D/deaf learners.
4. Guidelines for teaching staff who have a D/deaf learner and notetaker in their teaching environments.
5. Guidelines for learners who have a D/deaf learner and notetaker in their teaching sessions.

The NOTE information has been produced to provide information regarding good practice for anyone interested in notetaking, and intended to be both accessible and comprehensive. The intention is to revise the IaG every five years to ensure they are up-to-date and incorporate changes in technology and qualifications.

The NOTE IaG is a result of seventeen years experience as a qualified notetaker, postgraduate study, consultation with D/deaf learners, consultation with other qualified notetakers, consultation with teaching staff and current existing guidelines.

It is recommended that these NOTE IaG be used in conjunction with the NOTE template (a copy of the template and instructions are at the end of this document) which was developed to complement the information and guidelines. However, both the NOTE IaG and NOTE template can be used as stand-alone documents.

Ordinarily, D/deaf learners tend to sit next to, or near, the notetaker. The learner can check the notes for anything they need clarifying and to follow the teaching session in realtime. By sitting next to the notetaker, the D/deaf learner is also reminding lecturers and fellow classmates that they are D/deaf - it can be a gentle reminder. Stealth notetaking is a situation where the D/deaf learner does not want the lecturer and/or their

classmates to know that the notetaker is supporting them. There are a number of reasons for this but we have to acknowledge that the learner prefers this method.

D/deaf learners who have a manual notetaker should receive their notes at the end of each teaching session. If it is a case of stealth notetaking, the notes are usually left with the disability team (or equivalent) to be collected by the learner. Learners who receive diginotes or electronic notes, should be emailed within 48 hours. This enables the notetaker to ensure the notes have been spell-checked, have the preferred formatting style and any clarifications have been addressed.

Communication between the D/deaf learner and the notetaker can be critical in ensuring the working relationship works for them both. Teaching staff, the D/deaf learner, the notetaker and to some extent, fellow classmates may all play a part in the notetaking process being successful. Deaf Awareness training should be available to teaching staff, student notetakers and classmates should they request it. This is usually provided by the disability team or agency employed by the institution.

Both D/deaf learners and notetakers have emphasised how important it is for the two to meet **before** classes begin. This will enable the D/deaf learner to state their preferences, such as where to sit, the format of the notes, whether or not they want the most important information (such as exam dates or coursework deadlines) highlighted and/or if they want

additional information (such as comments made by classmates in a lecture) in addition to the salient information provided by the lecturer.

If either the D/deaf learner or the notetaker cannot attend a teaching session, it is courteous to inform the other person. Another notetaker could be sourced, or the notetaker could support a learner who needs notes somewhere else.

1. Notetaking Information:

The Code of Ethics for qualified notetakers includes the following:

- 1 Act justly and fairly towards other people.
- 2 Recognise the personal choices another person makes.
- 3 Do no harm.
- 4 Be honest.

Who are notetakers?

The IaG differentiates between professional, qualified notetakers and student notetakers:

Qualified Notetakers: possess a nationally recognised notetaking qualification (OCN, CACDP or Signature) in manual notetaking and/or electronic notetaking. The overwhelming majority are university graduates themselves, often with additional postgraduate qualifications. Qualified notetakers who possess the OCN qualification may require Deaf Awareness training as the qualification is for supporting different types of learners as opposed to the Signature qualification which is specifically for supporting D/deaf learners.

Student Notetakers: are often classmates of the D/deaf learner requiring notetaking support. The training they have received, if any, varies between a ten minute quiz to a half day training session, usually provided in-house by the department responsible for D/deaf support, or by an agency which provides the university with student notetakers. In some institutions, student notetakers will be learners on a different course.

What do notetakers do?

Notetakers provide summarised notes from all the different types of teaching environments. The summarised notes provide a record of the information given to the class. The notes are used for completing coursework and exam revision. Unless there is an agreement between the disability team, the learner and the notetaker, the notetaker is not permitted to take notes from a teaching session if the D/deaf learner does not attend.

Where do notetakers work?

Notetakers can be found in lectures, seminars, tutorials, labs and field trips. However, notetakers are not a substitute for learners attending lectures, seminars, etc. They are also found in exam situations which is a different skill as the notetaker needs to write verbatim notes. On the occasion when interpreters and/or CSWs are also supporting the D/deaf learner, the exam may be filmed for quality assurance purposes.

How do they notetake?

There are currently four methods of notetaking. These include:

- Manual notetakers – who use a conventional paper and pen. This is the main type of notetaking in the UK.
- Solo electronic notetaking – a notetaker uses a laptop, netbook or tablet to produce the notes. The D/deaf learner will either sit next to them to follow the notes in realtime or watch an additional laptop (or similar).
- Tandem electronic notetaking – two notetakers use laptops (or similar) to type up the notes. This is good practice but is not widespread due to funding implications. Both solo and tandem notetaking can provide a transcript of the notes.

- Diginotetaking – the notetaker uses specialist equipment to write notes conventionally. This may be with a tablet or digipen. Software then converts the handwriting into text.
- Ordinarily, they do not provide verbatim (word for word) notes as that is a different skill set and profession. Palantypists, stenographers and speech to text reporters (STTRs) have the ability and equipment to provide verbatim notes. However, the purpose of a notetaker is to summarise notes and provide written information needed for exams and/or coursework. This is particularly useful for D/deaf learners who may have English as their second language.

When do they notetake?

Notetakers provide notes for whenever the D/deaf learners need to access the curriculum. This is especially important if the D/deaf learner being supported is watching communication support workers (CSWs), sign language interpreters or lipspeakers. It is impossible to watch the sign language or lipreading and make notes at the same time.

2. Guidelines for D/deaf learners:

- If you have not been supported by a notetaker before, you can ask the disability team (or equivalent) for some training. This way, both

the D/deaf learner and the notetaker know what to expect, and what is expected of them.

- If you receive manual notes, you should receive them as soon as the teaching session is finished – you might need them for the seminar following the lecture.
- The notetaker should have the ability to tailor your notes to meet your own individual preferences. For example, the normal convention in notetaking is to use black ink. However, black ink on white paper does not suit everybody – the learner may request a different colour ink and/or paper.
- The majority of D/deaf learners who have contributed to the doctoral study which provided these guidelines, and the learners I have supported over the years, would prefer one or two notetakers during the academic year. Consistency is very important.
- If you receive diginotes or electronic notes, you should receive them electronically within 48 hours. This is to ensure the notes have been spell-checked and formatted correctly, but also for you to retain the information more effectively.
- The notes you receive from a notetaker should not be the only notes you work from. You should supplement the notes with your input. Research has shown that university learners who supplement the lecturer's information with their own independent notes are

likely to receive a higher degree classification than learners who use the lecturer's information in isolation. The 'white spaces' included in the NOTE template are for this purpose.

- It will also be useful to produce your own summary for each set of notes you receive. This will enable you to process the information, and potentially assist with you retaining the information.
- Paraphrasing rather than copying information word-for-word should enable you to avoid plagiarism. Paraphrasing also enables you to understand the information being learnt.
- Notetakers are not responsible for the information given during a teaching sessions – they are conveying the information provided by others.
- If you need to work in pairs, or small groups, do not include the notetaker in the numbers. Regardless of whether or not they continue to take notes, they do not contribute to discussions unless they are a student notetaker from your class.
- It is possible that your classmates have never had a D/deaf learner and notetaker duo in their learning environments before. You could provide the training if you feel you have sufficient information and/or confidence to deliver the training yourself. If not, you could ask the disability team or equivalent.

- It is rare for personality clashes to occur between the D/deaf learner and their notetaker. If this does happen, notify the disability team (or equivalent) for the situation to be resolved.
- Manual and diginotetakers can generally sit anywhere in the learning environment although electronic notetakers may have to sit near a power socket if they do not possess an extra battery.

3. Guidelines for notetakers:

- Your role is to provide an accurate and unbiased set of notes from whichever teaching situation you are employed in. Do not indicate your own views and/or add your own thoughts.
- If you are the only notetaker, ensure you stop writing/typing for ten minutes in every hour teaching session. This is to minimise occupational overuse syndrome (OOS) or repetitive strain injury (RSI). If however, there is no such opportunity, possibly during a field trip, ensure you implement micropauses. Lowering your writing/typing arm and flex the wrist and/or rotate your shoulder socket.
- If you are freelance, ensure you have your own indemnity and public liability insurance.
- Possessing a disclosure and barring service (DBS) (previously criminal records bureau - CRB) enhanced certificate is desirable.

- Paraphrase the relevant information and omit information which is not directly concerned with the subject matter. However, if a joke is made by a classmate and everyone starts laughing, the D/deaf learner might be confused and/or feel isolated if you do not note it down.
- If you need any information clarified, contact the lecturer after the session to ensure you have noted down the correct information. This maybe to clarify the date of an exam or how to spell a specific word you are unfamiliar with.
- Do not copy PowerPoint presentations or similar, the D/deaf learner should have access to a copy as part of their reasonable adjustments. This also applies to any paper handouts given to the class.
- Usually, a lecture or seminar consists of a single main point with a number of subtopics. Ensure these are apparent in the notes.
- If complex equations are written onto a Whiteboard, it would be a sensible idea for the D/deaf student to photograph the board to ensure the equation is correct. The image could be printed out and attached to the notes if they are handwritten or incorporated within the electronic notes.
- If the notes are in conjunction with a PowerPoint presentation or paper hand-out, indicate the slide/page number in the notes.

- Clearly emphasise important dates, such as exams and assignments, using highlighting, underlining, capital letters or a different coloured ink.
- Notetakers should not need to note down information given to the class via video – a transcript of the video should be available if used for teaching purposes.
- If supporting science, technology, engineering or maths (STEM) subjects, it is useful to learn the Greek alphabets, and the periodic table specifically for science subjects.
- Out of courtesy, introduce yourself to the lecturer discreetly before teaching sessions. You will only need to do this once for each lecturer although be mindful that relief and/or guest lecturers may be involved in delivering the curriculum.
- It would be useful to ask the teaching staff to look at your notes at the beginning of each subject. This will ensure the information is correct and the main/subtopics have been noted.
- If you have any concerns about the physical and/or mental wellbeing of the D/deaf student you are supporting, please speak to your line manager.
- Wear discrete identification such as a badge and/or lanyard to differentiate between you and the learners.

- Notetakers need to ensure they are appropriately dressed. To assimilate yourself into a class, it might be more appropriate for casual clothes (especially arts-based courses) than what is normally considered 'professional'.
- If you are likely to be supporting a D/deaf learner in a science lab, ensure you always have your white lab coat and protective glasses as you are likely to be denied entry without them.
- Ordinarily, electronic and diginotetakers provide their own equipment. Manual notetakers either provide their own paper and pens, the institution provides them and/or the money is claimed via the Disabled Students' Allowances (DSAs). This all depends on the institution.
- Lecturers utilise a number of strategies to emphasise an important point. They may raise or change the pitch of their voice; make hand gestures and repeat key words and/or phrases. Convey the importance in your notes.

Student notetakers:

- Student notetakers are one of two different types – a learner in the same class as the D/deaf learner or a learner on a different course and/or different year. It is recommended that student notetakers

who support D/deaf learners should be at least third years or postgraduates.

- Many student notetakers report that the quality of their own notes improve as a result of providing notetaking support for other learners.
- Notetaking for someone else is often very different from taking notes for your self.
- Do not take on a notetaking assignment unless you are familiar with the subject. Many university courses, regardless of whether it is an undergraduate or postgraduate course, has specific terminology and/or nomenclature.
- If you are a student notetaker from a different year and/or academic course, do not contribute towards discussions and/or answer any questions posed.
- If you are student on the same course, continue as you would normally but be mindful to continue taking notes. You will also need to be reliable and punctual as it is not just your education at stake.

4. Guidelines for teaching staff:

- New notetakers should introduce themselves at the beginning of teaching sessions. This is purely out of courtesy to ensure they are not included in group discussions or answering direct questions.
- Avoid any contact with the notetaker where possible. The adage 'seen but not heard' is appropriate here although 'not seen and not heard' may be more appropriate if the notetaker is providing stealth notetaking. Stealth notetaking is where the D/deaf learner does not want the class and/or lecturer knowing the notetaker is supporting them.
- Please provide a glossary of useful terms at the beginning of each academic year.
- Please provide an electronic/paper copy of any PowerPoint slides and/or handouts for the notetaker **before** the session begins.
- If it is standard practice to put electronic copies of slides on the university intranet (Moodle, BlackBoard, etc.). Please ensure the notetaker has a guest account to enable them to access the slides to your class before the teaching session begins.
- Do not involve the notetakers in discussions and ensure that if the class work in pairs, the D/deaf student is paired with another learner in their class. It is not appropriate for the notetaker to pair up with the D/deaf learner unless it is a student notetaker who would be in the class anyway.

- When asking a question to the class, please leave a delay of five seconds. This is to ensure the D/deaf learner has received the information via an interpreter or CSW, or if they are following the notetaker's notes. An academic at Gallaudet University takes a sip of coffee when asking a question to allow the learners to process the question.
- It is common practice to ask questions during seminars. A 'write, pair and harvest' approach may ensure D/deaf learners are included. Ask the question which all of the class write down, then ask the class to work in pairs to discuss their answers, finishing with harvesting a number of the collaborative answers.
- It is important to establish ground rules for discussions to ensure the D/deaf learner is included. Reminding the class that only one person can speak at any one time, will allow the D/deaf learner to follow the conversation and participate.
- As a lecturer, it is likely you will be a role-model for the class. If hearing learners observe that you are uncomfortable towards a D/deaf learner, it is likely they will mirror your behaviour.
- Ensure you take a ten minute break for every hour of teaching. Whilst this is good practice for the majority of learners, it will allow the notetaker to rest. This will hopefully minimise occupational overuse syndrome (OOS) and/or repetitive strain injury (RSI).

- Please ensure you finish your teaching session at the designated time. Notetakers often support more than one D/deaf learner and may need to go directly to another lecture/seminar. Whilst it is easy for a single learner to arrive late for a teaching session, a D/deaf learner accompanied by a notetaker (or two), plus potentially two sign language interpreters or two communication support workers, can cause quite a bit of disturbance.
- If the notetaker appears to be having difficulty in keeping pace with your delivery, it is likely the other students are also struggling. You can discreetly observe the notetaker to ensure you are not talking too quickly, and conversely, too slowly.
- Notetakers are bound by confidentiality unless they have serious, grounded reasons for believing someone will do harm to themselves or others. This is particularly pertinent on courses such as counselling where it is general practice to disclose personal experiences.
- It is not permissible to ask a notetaker to leave a teaching environment (unless their behaviour warrants this) due to confidential and/or delicate information is being given, as this discriminates against the D/deaf learner.
- On occasion, the notetaker may ask for clarification regarding information conveyed in a teaching session. It would be permissible

for them to email you to ensure the information is correct, or ask you personally at the end of the teaching session.

- Include the notetaker on the attendance register. This will help maintain quality assurance and may be required if there are questions regarding the notetaker actually attending. This will also negate the possibility of the notetaker and the D/deaf learner colluding which would enable the notetaker to invoice for work not undertaken.
- Also note down if the notetaker is late. If this is a regular occurrence, the notetaker may need to be replaced. Report continued absence/lateness to the disability team.
- Alert the disability team (or equivalent) if you have any concerns about the D/deaf learner/notetaker working relationship.
- If you have concerns about the quality of the notes, please advise the disability team.

5. Guidelines for classmates:

- If you have any questions for the D/deaf learner, ask them directly rather than through the notetaker.

- It is acceptable to say hello when you see the notetaker but avoid any further discussions whilst they are working, unless they are a student notetaker from your own class.
- Occasionally it is not known which learner the notetaker is supporting (stealth notetaking) at the request of the D/deaf learner. They have their reasons for preferring this approach and please accept their decision. This will be obvious if the D/deaf learner is supported by interpreters or communication support workers (CSWs).
- Do not ask for a copy of the notes provided by a notetaker – they belong to the D/deaf learner being supported.
- If you need to work in pairs, please ensure that the D/deaf learner is paired with a classmate. The notetaker is not included in class numbers.
- A number of D/deaf learners have said they feel isolated whilst at university. Please make an effort to ensure they are included. If they use sign language, you can learn a few simple signs (hello, how are you, fire alarm, etc.). There are plenty of websites which have this information. Not only will the D/deaf learner feel more welcome and included, having basic sign language will be useful in life generally.

Whilst the NOTE IaG focuses on D/deaf learners within higher education, the IaG could be modified to supporting a different cohort of learners (dyslexic learners, physically disabled learners, etc.) and/or within a different learning environment (such as further education and/or secondary education).

APPENDIX FIVE – NOTE TEMPLATE

Notetaking Optimising Thorley Effectiveness (NOTE) template for notetakers

The NOTE template for notetakers was an unexpected outcome of my ongoing Doctorate in Education (Ed.D) thesis - *Evaluating D/deaf Learners Experiences of Notetaking Support in Higher Education Utilising a Transformative Framework*. The initial intended outcome of the thesis was to produce a comprehensive set of guidelines concerning notetaking for D/deaf learners in higher education. However, as a response to comments provided by the D/deaf primary and secondary co-researchers, the template was devised.

D/deaf (Deaf or hard of hearing) learners are often watching someone interpreting the lecture, or lipreading the tutor and their peers. It is therefore almost impossible to take notes at the same time. Notetakers are therefore employed in universities to enable D/deaf learners to access the curriculum and have a permanent record of what has been said and/or discussed.

The thesis utilised a transformative framework as devised by Professor Donna Mertens a leading authority on D/deaf education. One criteria for transformative studies is to involve the co-researchers (usually described as subjects or participants) in the design process of any study relating to their cohort. For this study, six D/deaf primary co-researchers worked with me via an electronic forum to contribute their experiences as an indicator for what was needed for the *NOTE Information and Guidelines*. The information from the first phase, previous research, the available literature and personal and anecdotal experience was amalgamated to produce a questionnaire for the secondary phase which was completed by 30 D/deaf university learners and recent graduates. Whilst there were no direct questions about formatting, a number of co-researchers in both phases commented on how frustrating

and/or how much of their time was wasted on reading notetakers notes (both manual and electronic) due to the variety of notes they received.

Devising a template was not an immediate thought until I tied this research into my work as a widening participation practitioner working with D/deaf and disabled learners in schools, colleges and universities. Whilst the Cornell system for notetaking is regularly taught in American colleges for almost fifty years, there is no equivalent in the UK. In higher education, it is an expectation that learners should enhance the information they receive in class with independent learning. This method of notetaking can be regarded as the *reporter metaphor* which encourages learners to further investigate the information they have been. Consequently, to achieve a higher classification of degree, learners are required to supplement the information they receive in class by further reading. If notetakers were to adopt the NOTE template when working with D/deaf learners, the white space (blocks of the page that is left blank) can be used by the learner to make additions – whether this be from journals, books, documentaries, etc. Encouraging D/deaf learners to add to the notes taken during the class by a notetaker, should also elevate them from surface or shallow learners to deep learners . Combining the notes from class and independent notes from further study should enable the learner to have one set of notes from each session. The summary page will also assist with revision for exams.

Melanie Thorley

Disability and Diversity Outreach Officer – University of Greenwich

Doctorate in Education candidate – School of Education and Health

Management Committee member – *adept

June 2014

DATE **TITLE – NOTE⁴ template for notetakers**

AM or PM TUTOR This section is for notes taken during the lecture, seminar, tutorial, etc.

SUBJECT You can use either handwritten notes on conventional A4 lined paper, or use a digital/electronic device such as a laptop, netbook, tablet, etc. depending on your preferred method of notetaking.

1 of (however many pages) Notes should be in summary form and long sentences need to be paraphrased.

Only write on one side of the page if using paper and pen – this makes revising and reviewing easier.

Conventional abbreviations, notations and symbols should be used.

This section of the paper is left as 'white space'.

You do not write in this box during the class but learners add to this section after the session – preferably within 24 hours.

Learners need to use a different coloured ink or

Unlike the Cornell method which is popular in the U.S., this system is linear which the majority of students are most familiar with. Whilst this system has been developed for D/deaf learners in higher education, it is appropriate for learners at all levels of education who require notes from their classes. This system can also be used for taking notes from video and/or audio recordings.

This section is also left as 'white space'.

This template would be beneficial for learners who adopt a reporter approach to learning – if a reporter is tasked with writing an article for a newspaper, they may interview one or two people on the specific subject. The reporter then uses other sources to make

NOTE – Notetaking Optimising Thorley Effectiveness (notetakers) 2013.



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