An exploration of the concept of reasonable adjustments in pre-registration nursing education in Scotland

A thesis submitted to The University of Manchester for the degree of Doctor of Philosophy in the Faculty of Biology, Medicine and Health

2018

Anne Marie Craig

School of Health Sciences
Division of Nursing, Midwifery & Social Work
<table>
<thead>
<tr>
<th>Table of Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Appendices ..................................................6</td>
</tr>
<tr>
<td>List of Figures .........................................................7</td>
</tr>
<tr>
<td>List of Tables ..........................................................8</td>
</tr>
<tr>
<td>List of Abbreviations ..................................................9</td>
</tr>
<tr>
<td>Abstract .................................................................11</td>
</tr>
<tr>
<td>Declaration ..............................................................12</td>
</tr>
<tr>
<td>Copyright Statement ....................................................13</td>
</tr>
<tr>
<td>Acknowledgements .......................................................14</td>
</tr>
<tr>
<td>Dedication ...............................................................14</td>
</tr>
<tr>
<td>The Author ......................................................................15</td>
</tr>
<tr>
<td><strong>Chapter 1: Introduction to Thesis</strong> ....................................16</td>
</tr>
<tr>
<td>1.1 Introduction ............................................................16</td>
</tr>
<tr>
<td>1.2 Background and rationale for research ...............................16</td>
</tr>
<tr>
<td>1.2.1 Disability and the Law ...............................................18</td>
</tr>
<tr>
<td>1.2.2 Disability and Healthcare Education .............................20</td>
</tr>
<tr>
<td>1.3 Setting the Scene: Pre-registration Nursing Education in Scotland ..........23</td>
</tr>
<tr>
<td>1.4 Overview of thesis .....................................................24</td>
</tr>
<tr>
<td>1.5 Summary ...............................................................25</td>
</tr>
<tr>
<td><strong>Chapter 2: Review of the Literature</strong> ....................................27</td>
</tr>
<tr>
<td>2.1 Introduction ............................................................27</td>
</tr>
<tr>
<td>2.2 Aim and objective .....................................................27</td>
</tr>
<tr>
<td>2.3 Search Strategy ........................................................27</td>
</tr>
<tr>
<td>2.4 Synopsis of literature reviewed .....................................35</td>
</tr>
<tr>
<td>2.5 Themes from Literature .................................................43</td>
</tr>
<tr>
<td>2.5.1 Attitudes, knowledge and decision-making .......................44</td>
</tr>
<tr>
<td>2.5.2 Guidelines, policy and procedure ................................49</td>
</tr>
<tr>
<td>2.5.3 Disclosure ...........................................................54</td>
</tr>
<tr>
<td>2.5.4 Influence of the education location ..............................57</td>
</tr>
<tr>
<td>2.5.5 Risk .................................................................60</td>
</tr>
<tr>
<td>2.6 Discussion .............................................................62</td>
</tr>
<tr>
<td>2.7 Gaps in Literature .....................................................65</td>
</tr>
<tr>
<td>2.8 Summary .............................................................66</td>
</tr>
<tr>
<td><strong>Chapter 3: Methodology and methods</strong> ....................................68</td>
</tr>
<tr>
<td>3.1 Introduction ...........................................................68</td>
</tr>
<tr>
<td>3.2 Research Question ....................................................68</td>
</tr>
</tbody>
</table>
Chapter 4: Findings

4.1 Introduction

4.2 Respondents’ Roles within HEIs

4.3 Pre-registration Nursing Education Programmes in Scotland
4.4 Numbers of Pre-registration Nursing Students in Scotland ......................... 111
4.5 Number of Pre-registration Nursing Students with Disabilities .................... 114
4.6 Types of Disabilities Disclosed by Student Nurses ..................................... 118
4.7 Student Nurses within Each Category of Disability ................................... 121
4.8 Identification of Student with Disabilities – Disclosure ................................ 121
4.9 Identification of Student Support Needs .................................................... 122
4.10 Types of Reasonable Adjustments Offered ................................................. 127
4.11 Communication of Reasonable Adjustment Recommendations .................. 132
4.13 Guidelines to Support Decisions about Reasonable Adjustments ............... 138
4.14 Documentary Analysis .............................................................................. 138
4.15 ‘Unreasonable’ Requests for Reasonable Adjustments ............................... 143
4.16 Evaluation of the Effectiveness of Reasonable Adjustments ....................... 146
4.17 Summary ................................................................................................. 148

Chapter 5: Findings – Phase Two ..................................................................... 152
  5.1 Introduction .............................................................................................. 152
  5.2 Reasonable Adjustments: a Wicked Problem ........................................... 156
    5.2.1 Levelling the Playing Field ................................................................. 158
    5.2.2 Boundaries and Limits ...................................................................... 161
  5.3 The Influence of Context: location and status ........................................... 170
    5.3.1 The Educational Setting .................................................................... 170
    5.3.2 Differences due to status ................................................................... 181
  5.4 To disclose or not disclose? ...................................................................... 190
  5.5 Summary ................................................................................................. 196

Chapter 6: Discussion ....................................................................................... 198
  6.1 Introduction .............................................................................................. 198
  6.2 Reasonable Adjustments: A Wicked Problem .......................................... 198
    6.2.1 Reasonable Adjustments: Ambiguous and ill–defined ....................... 204
    6.2.2 Reasonable Adjustments: Multifactorial and Value–laden .................... 212
    6.2.3 Reasonable Adjustments: Context specific                             216
  6.3 Dichotomies that influence Reasonable Adjustments ................................ 221
    6.3.1 Higher Education Institution (HEI) v Practice .................................. 221
    6.3.2 Student Nurse v Employee ................................................................. 226
    6.3.3 Disclosure v Non-disclosure .............................................................. 231
    6.3.4 Safety v Risk ..................................................................................... 237
  6.4 Reflexivity: Interpreting the findings ......................................................... 242
6.5 Summary......................................................................................................................... 245

Chapter 7: Conclusions and recommendations ................................................................. 247

7.1 Introduction .................................................................................................................. 247
7.2 Reviewing the research aim and objectives ............................................................... 248

7.2.1 Objective one ........................................................................................................ 249
7.2.2 Objective two ......................................................................................................... 251
7.2.3 Objective three ...................................................................................................... 253
7.2.4 Objective four ....................................................................................................... 255

7.3 Key conclusions .......................................................................................................... 263
7.4 Strengths and Limitations of the Research ............................................................... 265
7.5 Contribution to knowledge ......................................................................................... 268

7.6 Implications for Nursing Education ......................................................................... 271
7.7 Recommendations ..................................................................................................... 273

7.7.1 Recommendations for Policy ............................................................................. 274
7.7.2 Recommendations for Education ....................................................................... 274
7.7.3 Recommendations for Research ...................................................................... 275

7.8 Summary ................................................................................................................... 277

References ...................................................................................................................... 279

Appendices ..................................................................................................................... 298

Word count: 77417
## List of Appendices

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix 1</td>
<td>Map of Scottish HEIs and NHS Scotland Boards providing full-time pre-registration nursing education</td>
<td>298</td>
</tr>
<tr>
<td>Appendix 2</td>
<td>Data extraction table</td>
<td>299</td>
</tr>
<tr>
<td>Appendix 3</td>
<td>Critical appraisal checklist (adapted from CASP, 2017)</td>
<td>331</td>
</tr>
<tr>
<td>Appendix 4</td>
<td>University of Manchester ethics approval</td>
<td>332</td>
</tr>
<tr>
<td>Appendix 5</td>
<td>Recruitment Poster</td>
<td>333</td>
</tr>
<tr>
<td>Appendix 6</td>
<td>Letter of introduction</td>
<td>334</td>
</tr>
<tr>
<td>Appendix 7</td>
<td>Phase one participant information sheet</td>
<td>335</td>
</tr>
<tr>
<td>Appendix 8</td>
<td>Phase one survey (after pilot amendments)</td>
<td>339</td>
</tr>
<tr>
<td>Appendix 9</td>
<td>Phase two participant information sheet</td>
<td>349</td>
</tr>
<tr>
<td>Appendix 10</td>
<td>Consent form</td>
<td>353</td>
</tr>
<tr>
<td>Appendix 11</td>
<td>Topic guide</td>
<td>354</td>
</tr>
<tr>
<td>Appendix 12</td>
<td>Documentary Analysis</td>
<td>355</td>
</tr>
<tr>
<td>Appendix 13</td>
<td>Theme development</td>
<td>356</td>
</tr>
</tbody>
</table>
List of Figures

Figure 2.1 PRISMA diagram ................................................................. 34
Figure 4.1 Roles held by respondents within HEI .................................. 108
Figure 4.2: Pre-registration nursing programmes (by field of practice) .......... 110
Figure 4.3: Percentage of pre-registration nursing students reported in HEI data ..... 113
Figure 4.4: Percentage of listed students with a disclosed disability .............. 115
Figure 4.5: Distribution of student nurses by HEI .................................. 116
Figure 4.6: Numbers of student nurses with and without disabilities by HEI ........ 117
Figure 4.7 Proportion of total number of students with disabilities at each HEI .... 118
Figure 4.9 Percentage of student disclosures within each disability category ....... 121
Figure 4.10 Flowchart of HEI processes for disclosure and identification of support measures ................................................................. 124
Figure 4.11 Staff roles that meet with students and/or discuss support needs ....... 126
Figure 4.12 Number of reasonable adjustments in academic and practice settings .. 128
Figure 4.13 Reasonable adjustments offered in academic setting...................... 129
Figure 4.14 Reasonable adjustments offered in practice setting........................ 129
Figure 4.15 RA Decision-makers in academic settings................................. 136
Figure 4.15 RA Decision-makers in practice settings................................... 136
Figure 5.1 Thematic Map ..................................................................... 153
Figure 5.2 Emergent themes ................................................................. 155
Figure 7.1 Factors influencing Reasonable Adjustments............................... 255
List of Tables

Table 2.1: Inclusion and Exclusion criteria (2013) ..........................................................30
Table 2.2: Inclusion and Exclusion criteria (2017) ..........................................................31
Table 2.3: Search strategy (2013 and 2017) ..................................................................32
Table 3.1 Data collection matrix ...................................................................................89
Table 4.1: Summary of pre-registration nursing programmes by HEI: .........................110
Table 4.2: HESA data by code ......................................................................................111
Table 4.3: Numbers and percentages of students in participating HEIs ......................112
Table 4.4 UCAS Disability Categories (UCAS 2016) ..................................................119
Table 4.5: Modes of communication in academic settings ........................................133
Table 4.6 Communicating reasonable adjustment requests to practice .....................134
Table 4.7 Quantitative analysis of HEI webpages .........................................................139
Table 4.8: People involved in evaluation of Reasonable Adjustments (by setting) .. 146
Table 6.1 Characteristics of Wicked Problems ...............................................................199
Table 6.2: Wicked problem characteristics and reasonable adjustments ..................200
## List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>Academic Advisor (also refers to Link or liaison lecturer or personal tutor)</td>
</tr>
<tr>
<td>ADC</td>
<td>Academic Disability Coordinator</td>
</tr>
<tr>
<td>ADT</td>
<td>Academic Development Tutor</td>
</tr>
<tr>
<td>AMED</td>
<td>Allied and Complementary Medicine Database</td>
</tr>
<tr>
<td>ASSIA</td>
<td>Applied Social Sciences Index and Abstracts</td>
</tr>
<tr>
<td>BDA</td>
<td>British Dyslexia Association</td>
</tr>
<tr>
<td>CASP</td>
<td>Critical Appraisal Skills Programme</td>
</tr>
<tr>
<td>CINAHL</td>
<td>Cumulative Index to Nursing and Allied Health Literature</td>
</tr>
<tr>
<td>CPR</td>
<td>Cardiopulmonary Resuscitation</td>
</tr>
<tr>
<td>DoH</td>
<td>Department of Health</td>
</tr>
<tr>
<td>DA</td>
<td>Disability Advisor</td>
</tr>
<tr>
<td>DDA</td>
<td>Disability Discrimination Act</td>
</tr>
<tr>
<td>EHRC</td>
<td>Equality and Human Rights Commission</td>
</tr>
<tr>
<td>GP</td>
<td>General Practitioner</td>
</tr>
<tr>
<td>HCPC</td>
<td>Health and Care Professions Council</td>
</tr>
<tr>
<td>HEI</td>
<td>Higher Education Institution</td>
</tr>
<tr>
<td>HESA</td>
<td>Higher Education Statistics Agency</td>
</tr>
<tr>
<td>ISD Scotland</td>
<td>Information Services Division Scotland</td>
</tr>
<tr>
<td>LL</td>
<td>Link lecturer/ Liaison lecturer (referred to as AA)</td>
</tr>
<tr>
<td>MH</td>
<td>Medical Subject Headings (MeSH)</td>
</tr>
<tr>
<td>NAR</td>
<td>Needs Assessment Record (details recommended reasonable adjustments)</td>
</tr>
<tr>
<td>NES</td>
<td>NHS Education for Scotland</td>
</tr>
<tr>
<td>NHS</td>
<td>National Health Service</td>
</tr>
<tr>
<td>NMC</td>
<td>Nursing and Midwifery Council</td>
</tr>
<tr>
<td>OAR</td>
<td>Scottish Ongoing Achievement Record</td>
</tr>
<tr>
<td>OH</td>
<td>Occupational Health</td>
</tr>
<tr>
<td>PEF</td>
<td>Practice Education Facilitator</td>
</tr>
<tr>
<td>PhD</td>
<td>Doctor of Philosophy</td>
</tr>
<tr>
<td>PIS</td>
<td>Participant Information Sheet</td>
</tr>
<tr>
<td>Acronym</td>
<td>Full Form</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td>RCN</td>
<td>Royal College of Nursing</td>
</tr>
<tr>
<td>RN</td>
<td>Registered Nurse</td>
</tr>
<tr>
<td>RPL</td>
<td>Recognition of Prior Learning</td>
</tr>
<tr>
<td>SCQF</td>
<td>Scottish Credit and Qualifications Framework</td>
</tr>
<tr>
<td>SCRAM</td>
<td>Student-Centred Reasonable Adjustments Model</td>
</tr>
<tr>
<td>SENDA</td>
<td>Special Educational Needs and Disability Act</td>
</tr>
<tr>
<td>SPLA</td>
<td>Student Practice Learning Advisors</td>
</tr>
<tr>
<td>SpLD</td>
<td>Specific Learning Difficulties</td>
</tr>
<tr>
<td>UCAS</td>
<td>Universities and Colleges Admissions Service</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>UoM</td>
<td>University of Manchester</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
</tr>
</tbody>
</table>
Abstract
As part of their statutory Public Sector Duty universities and practice learning partners need to provide reasonable adjustments to support pre-registration nursing students with disabilities. Support measures should meet students’ individual needs while maintaining academic and professional standards. Anecdotal evidence highlights inconsistencies regarding the availability and type of reasonable adjustments employed within and between academic and practice settings. This study therefore explored the concept of reasonable adjustments in Scottish pre-registration nursing education.

A sequential, explanatory, mixed-methods approach underpinned by pragmatism was adopted to generate and organise the data. Various non-probability sampling techniques were implemented to access the maximum number of participants. Data were collected via a telephone survey with eight respondents during phase one. Twelve academic staff; eight Practice Education Facilitators and one lecturer joint appointee (n=21) participated in phase two. Seventeen participants contributed to five focus groups and four agreed to be individually interviewed. Data analyses included descriptive statistics, descriptive and thematic analysis and documentary analysis prior to synthesising the data to augment the findings.

The findings revealed considerable differences across Scottish pre-registration nursing education programmes. Processes to identify and implement reasonable adjustments varied although participants wanted to offer students support that facilitated equal opportunities. However the types of reasonable adjustments available were influenced by attitudes, disclosure, educational setting, experiences, and perceptions surrounding the law and education standards, as well as individuals’ personal values and beliefs. Four interrelated themes emerged: Reasonable adjustments - a wicked problem; Influence of context - location and status; To disclose or not disclose, and Safety first.

Being a wicked problem, reasonable adjustments are complex, ill-defined, multi-factorial and subjective, with no easy resolution. Participants indicated requests for reasonable adjustments were unique, with students entitled to individualised, support plans enabling them to work effectively across diverse academic and practice environments. Conversely, evidence from the findings illustrated localised processes reflecting a “one-size-fits-all” generic approach, weighted towards academic rather than practice based reasonable adjustments, with limited evidence of individualised support. Hence, stakeholders in HEIs and practice need to work collaboratively to address adjustment issues arising in both settings to facilitate fair resolutions to support students with disabilities. Furthermore, to secure equal opportunities and flexibility for students with disabilities with the potential to be effective nurses, but unable to meet current curricular expectations, the possibility of developing bespoke education programmes to achieve registration as a nurse also requires exploration.

The University of Manchester 12th February 2018
Candidate: Anne Marie Craig
Degree Title: Doctor of Philosophy (PhD)
Thesis Title: An exploration of the concept of reasonable adjustments in pre-registration nursing education in Scotland.
Declararion
No portion of the work referred to in the thesis has been submitted in support of an
application for another degree or qualification of this or any other university or other
institute of learning
Copyright Statement

i. The author of this thesis (including any appendices and/or schedules to this thesis) owns certain copyright or related rights in it (the “Copyright”) and s/he has given The University of Manchester certain rights to use such Copyright, including for administrative purposes.

ii. Copies of this thesis, either in full or in extracts and whether in hard or electronic copy, may be made only in accordance with the Copyright, Designs and Patents Act 1988 (as amended) and regulations issued under it or, where appropriate, in accordance with licensing agreements which the University has from time to time. This page must form part of any such copies made.

iii. The ownership of certain Copyright, patents, designs, trademarks and other intellectual property (the “Intellectual Property”) and any reproductions of copyright works in the thesis, for example graphs and tables (“Reproductions”), which may be described in this thesis, may not be owned by the author and may be owned by third parties. Such Intellectual Property and Reproductions cannot and must not be made available for use without the prior written permission of the owner(s) of the relevant Intellectual Property and/or Reproductions.

iv. Further information on the conditions under which disclosure, publication and commercialisation of this thesis, the Copyright and any Intellectual Property and/or Reproductions described in it may take place is available in the University IP Policy (see http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=24420), in any relevant Thesis restriction declarations deposited in the University Library, The University Library’s regulations (see http://www.library.manchester.ac.uk/about/regulations/) and in The University’s policy on Presentation of Theses.
Acknowledgements
This academic, personal and professional journey would not have been possible without the direction, encouragement, feedback and support of several individuals who undoubtedly deserve formal recognition and appreciation.

Firstly, thank you to my participants who made this research possible.

Special thanks to my supervisors Professor Ann Wakefield and Professor Steven Pryjmachuk, for your advice, encouragement, guidance and patience throughout the last six years.

Thank you to my academic and practice colleagues and peers for your encouragement. I’d particularly like to extend my gratitude to those who have undoubtedly contributed to my development through your inspiration, support and the provision of time when writing this thesis.

And to my husband Nigel, and children Joseph, Mark and Katie, who have travelled this journey with me. I’m eternally grateful for your faith, love, support and encouragement, particularly during the adverse times of what has been a rollercoaster ride. Thank you.

Dedication

In memory of my parents: the Wind Beneath my Wings.
The Author
After graduating with a BSc (Honours) in Nursing (Adult) in 1992 my first registered nurse post was in acute medicine in a large teaching hospital. My first exposure to research stemmed from part of the degree requirements to prepare a research proposal. The proposed study aimed to explore the experiences of people with Type 1 diabetes.

In 1993 I started my career in renal nursing at another teaching hospital. Keen to underpin my renal nursing practice I relocated in 1994 to access the English National Board Renal Nursing programme (ENB 136). Due to family commitments I returned to the original Renal Unit at the end of 1995 where I contributed to the active research programme by collecting data for haemodialysis and transplant trials.

To continue my education and professional development I commenced a part-time Master of Nursing programme in 1997. The focus of my dissertation was a small exploratory study of the role of the Haemodialysis Nurse. This was influenced by my role as Haemodialysis Ward Sister. Following graduation in 1999 I managed a renal ward prior to becoming Renal Nurse Educator in 2001.

As part of a national initiative aimed at improving the practice learning environment, I accepted the Lead Practice Education Facilitator (PEF) role for a large NHS Trust to introduce and develop new and innovative practice education roles in 2004. I completed a Post Graduate Certificate in Education (PGCE Lecturer Practice Educator) in 2007 and to support my role development I prepared an action research proposal to develop and evaluate an educational resource pack to prepare PEFs to support Flying Start NHS®

Becoming a lecturer in Adult Nursing in 2009 was a natural career progression. Although I teach on research modules and support undergraduate students to write research proposals, studying for this PhD is only my second research study. My interest in supporting students with disabilities nurtured the focus of the research. One key point of learning for me from undertaking this PhD is: research is not as linear as the textbooks suggest, it is actually quite a messy process.

1 National web-based initiative to support newly qualified nurses, midwives and Allied Health Professionals to develop confidence and competence in their role in NHS Scotland.
Chapter 1: Introduction to Thesis

1.1 Introduction

The content of this PhD thesis has been generated from a two-phased mixed methods study that aimed to explore the concept of reasonable adjustments within pre-registration nursing education in Scotland. Reasonable adjustments are mandatory requirements emanating from the Equality Act (2010) and are designed to minimise the disadvantages experienced by persons with a disability. Employers and Public Sector organisations are therefore required to make reasonable adjustments to accommodate the disability. Thus Higher Education Institutions (HEIs) and their practice partners have a legal obligation under the Equality Act (2010) and a professional requirement (Nursing and Midwifery Council (NMC), 2010; NMC, 2017b) to provide support for student nurses with disabilities. This first chapter provides a background to the study supported by an underpinning rationale for undertaking the research. An overview of the legislation is provided before the context of pre-registration nursing education in Scotland is outlined. The closing aspect of the chapter provides an overview of the thesis to set the scene and guide the reader through the text.

1.2 Background and rationale for research

Having supported students in both practice and latterly academic settings, my interest in supporting students with disabilities was initiated in 2010 when I took over the role of Academic Disability Coordinator (ADC) for the Nursing Department in my own HEI. The ADC is responsible for coordinating the facilitation of reasonable adjustments for students to minimise the impact of disabilities on students’ education. Therefore the ADC is the principal contact between students with

---

2 Universities providing pre-registration nursing education are referred to as Approved Education Institutions (AEI) by NMC but the term Higher Education Institution (HEI) is used in this thesis.
3 Practice partner - National Health Service (NHS), private and third sector organisations providing practice learning experiences
disabilities, HEI Disability Services and academic staff. Even though I am a registered nurse (adult), and have been a mentor, preceptor, Ward Manager, Clinical Educator and Practice Educator, my experience of supporting students or registered staff with disabilities was very limited up until that point. I had only facilitated support for staff members based on recommendations from the Occupational Health (OH) Department and, I had never formally supported any students with disabilities. Not only was my knowledge about specific disabilities limited or non-existent, terms like reasonable adjustment were unfamiliar. Therefore, the adoption of the ADC role initiated a very steep learning curve.

In my own HEI there are processes to ensure students who disclose a disability are provided with necessary support based on recommendations from a HEI Disability Advisor (DA). A Needs Assessment Record (NAR) details a code for the disclosed disability as well as alternative examination arrangements and recommended reasonable adjustments for learning and teaching to support the student. When reviewing students’ NARs I became aware the support recommendations were focused towards the academic setting. Little, if any, consideration was given to the practice setting which, in line with NMC regulations (NMC, 2010), forms 50% of any pre-registration nursing programme. Attempts to access more information about the types of support required by students and how to facilitate support both in theory and practice had diverse outcomes. Verbal advice based on anecdote, experience and perceptions was available from some academic colleagues, many of whom offered various opinions about the feasibility of students with disabilities becoming registered nurses.

Resources about support for students in the HEI were available from Disability Services. However specific written information to facilitate identification and implementation of reasonable adjustments for student nurses was sparse and at times conflicting. This was particularly evident when attempting to establish support for practice. Anecdotal feedback from students reinforced that their support experiences both in the academic and practice settings were variable at best. Therefore, the combination of my own experience as a novice ADC trying to learn
about and facilitate reasonable adjustments in academic and practice settings, along with the feedback from students, and comments from colleagues, highlighted a ripe area for investigation.

My initial thinking focused on the identification and implementation of reasonable adjustments for students with disabilities. I was interested in the types of disabilities students disclosed and what support was available to them. Preliminary discussions with colleagues in other Scottish HEIs highlighted their experiences facilitating support were similar to mine: inconsistent with variable levels and types of support offered to students. I wanted to understand the reasons behind this diversity and so my PhD journey to explore reasonable adjustments in Scottish pre-registration nursing programmes commenced.

1.2.1 Disability and the Law

The Disabled Persons (Employment) Act 1944 was introduced by the British Government to reserve jobs for war-disabled people following the Second World War. Within the Act a disabled person was defined as

“a person who, on account of injury, disease, or congenital deformity, is substantially handicapped in obtaining or keeping employment, or in undertaking work on his own account, of a kind which apart from that injury, disease or deformity would be suited to his age, experience and qualifications”


While the Act secured jobs for people with disabilities, the jobs were regarded as menial and non-challenging, with little consideration of a person’s abilities (Thurgood, 1999). People with disabilities campaigned for access to a wider range of jobs but apart from an update to the Act in 1958, significant changes to protect people with disabilities from employment discrimination were not implemented until the Disability Discrimination Act (DDA) was introduced in 1995.
The DDA (1995, p.1) defined disability as

“a physical or mental impairment which has a substantial and long-term adverse effect on [a person’s] ability to carry out normal day to day activities”

The focus of the definition conforms to the medical model of disability which regards the deficits caused by a disability to be an issue for the individual (Scullion, 2000). However the legal requirement to introduce support measures known as ‘reasonable adjustments’ resulted in movement towards a social model of disability (Carter & Markham, 2001). The social model deems disability a consequence of the way society is organised rather than the individual’s impairment (Oliver, 1983). Therefore employers and society in general were responsible for removing environmental and social barriers to disabilities. However in certain circumstances employers still could justify the exclusion of people with disabilities. For example, if a person with a disability was unable to maintain academic or professional standards despite reasonable adjustments; where the health and safety of others was compromised; or the nature of the disability was substantial (Sanderson-Mann & McCandless, 2005).

The introduction of the Special Educational Needs and Disability Act (SENDA) (2001) made it a requirement for education providers to offer support through reasonable adjustments to ensure equal opportunities for people with disabilities. According to SENDA (2001) reasonable adjustments should be practical and achievable within a manageable resource so long as others are not significantly disadvantaged. However irrespective of nursing education being based in HEIs since the Judge Report recommendations to move from Schools and Colleges of Nursing attached to hospitals (Royal College of Nursing (RCN), 1985), the legislation did not initially apply to the practice settings where student nurses completed placement learning. This loophole was closed with the amendment of DDA (1995) in 2003. Thus previously

---

4 **Reasonable adjustment** (reasonable accommodation) - *reasonable* actions must be taken to remove criteria, practices, and physical features to avoid significant disadvantage to a person because of a disability, compared to a person without disability. Auxiliary aids should be provided to avoid significant disadvantage due to a disability (Equality Act, 2010).
excluded public bodies\textsuperscript{5} were encouraged to include and provide equal opportunities for people with disabilities (Sanderson-Mann & McCandless, 2005). The Disability Equality Duty (Disability Rights Commission, 2007) strengthened the stance regarding opportunities for people with disabilities (Sin & Fong, 2007). Accordingly, the legislation has required several professions, including nursing, to evaluate their position on supporting the inclusion of people with disabilities in academic and practice settings.

The introduction of the Equality Act (2010) superseded all previous anti-discrimination legislation in England, Scotland and Wales. The Act does not apply in Northern Ireland due to powers devolved in the Northern Ireland Act (1998). The aim of the Equality Act (2010) is to prevent discrimination\textsuperscript{6} and ensure public bodies are aware of the requirement to be inclusive through the provision of equal opportunities for people within nine protected characteristics: age, disability, gender reassignment, marriage and civil partnership; pregnancy and maternity; race, religion or belief; sex, and sexual orientation. The Act stipulates that it is a Public Sector Equality Duty to ensure reasonable actions are taken to avoid disadvantages resulting from a disability. The duty is anticipatory, meaning that continuous consideration must be given to how the duty can be met. The requirements of people with disabilities and what adjustments may reasonably be implemented to overcome barriers caused by disabilities should be anticipated (Equality and Human Rights Commission (EHRC), 2017).

\textbf{1.2.2 Disability and Healthcare Education}

Providers of healthcare education are obliged to meet their Public Sector Equality Duty (Equality Act, 2010; EHRC, 2017). Where feasible anticipatory reasonable

\textsuperscript{5} Public bodies are organisations which are publically funded to provide vital public services (e.g. National Health Service) (Cabinet Office, 2016).

\textsuperscript{6} Discrimination – making a distinction about a person or group based on a protected characteristic that causes different (positive or negative) treatment or behaviours towards the person or group (EHRC, 2017)
adjustments should be available to healthcare students to permit people with disabilities to reach their potential both academically and in practice (Tee et al., 2010) without compromising professional standards (Kane & Gooding, 2009). Therefore reasonable adjustments should be available in HEIs and practice areas supporting healthcare education (Quality Assurance Agency for Higher Education (QAA), 2010) to meet the requirements of SENDA (2001), the Equality Act (2010) and professional standards requirements (NMC, 2010; NMC, 2015; Health and Care Professions Council (HCPC), 2016).

Professional standards are underpinned by the concept of “Fitness to Practise”. For example the HCPC (2012, 2015) associate being fit to practise with having the necessary health and temperament to practise safely and effectively. Fitness to practise became an integral element of The Nursing and Midwifery Order (2001) following the Peach Report (1999). Similar to HCPC, in nursing and midwifery, fitness to practise is linked to the idea of good health and good character. Accordingly, the term ‘disability’ per se is not synonymous with ‘poor health’ (Department of Health [DoH], 2000) because the NMC (2010, p.8) maintains fitness to practise means “...a person must be capable of safe and effective practice without supervision. It does not mean the absence of any disability or health condition”.

Therefore by definition an individual with a disability competent in practice, with or without the implementation of reasonable adjustments, can be considered to be of good health and good character and unquestionably fit to practise. Remaining fit to practise is a requirement throughout a professional’s career, and this begins when an individual embarks on a pre-registration healthcare education programme.

In spite of recognising that disability and poor health are not one and the same entity and despite the legal expectation that reasonable adjustments will be implemented, findings by Sin & Fong (2008) highlighted there was lack of consistency amongst HEIs and employers regarding their understanding of the concept of ‘good health’. From my experience, this is still the case. Within the literature a number of factors have been identified as causing disparity in the availability of support and adjustments for
healthcare students with disabilities. In part this has been associated with different interpretations of ‘Fitness to Practise’ (Sin & Fong, 2007; Sin & Fong, 2008; Kane & Gooding, 2009; Sin, 2009; Storr et al., 2011; Shrewsbury, 2015).

Although the NMC (2015) and HCPC (2016) have provided additional guidance to support HEIs, different interpretations of Fitness to Practise abound. There are disparities regarding which adjustments may be regarded as reasonable as well as whether adjustments should be made or not. Perceived lack of clear guidance or evidence of what constitutes suitable and effectual adjustments has impacted on the availability of support (Storr et al., 2011; Shrewsbury, 2015). For example pre-registration nursing students are expected to demonstrate competence with numeracy including medicines calculations:

“manipulate numbers as applied to volume, weight, and length, (including, addition, subtraction, division, multiplication, use of decimals, fractions, and percentages) to include using a calculator”.  
(NMC, (2008), p. 3)

Anecdotal evidence suggests ‘to include using a calculator’ has been interpreted to mean a calculator can only be used some of the time. Consequently, depending on the interpretation of academic and practice staff, students with numeracy difficulties, which can be associated with dyscalculia, may or may not be offered a calculator as a reasonable adjustment.

Other authors have stressed that the disability experience is individual and consequently requires individualised support measures (Sanderson-Mann & McCandless, 2005; Morris &Turnbull, 2006; Griffiths et al., 2010; Ridley, 2011). Therefore generalised approaches to support may not meet individual needs. Consequently healthcare education providers may fail to meet their Equality duty.
1.3 Setting the Scene: Pre-registration Nursing Education in Scotland

Pre-registration nursing education in Scotland is commissioned by the devolved Scottish Government to prepare students to be eligible for registration with the NMC. Programmes of study must demonstrate alignment with Standards for Pre-registration Nursing Education (NMC, 2010). The NMC approves programmes and quality assures HEIs’ performance using a risk-based approach which incorporates annual self-reporting by the HEI; feedback from students, service users and carers, and monitoring reviews (NMC, 2017b). HEIs and their practice partners are responsible for quality assurance on a daily basis, including adherence to HEI and practice policies and procedures. Incumbent in the NMC Standards is the requirement for programme providers to adhere to the Equality legislation and meet the equality duty to make reasonable adjustments without compromising patient safety (NMC, 2010).

Through the Setting the Direction agenda the Scottish Government decides which pre-registration programmes of study are available and for how many students (Scottish Government, 2014). Eleven HEIs deliver pre-registration nursing education in Scotland, equating to 27 programmes of study. One provider offers flexible, part-time, distance and open learning for Health Care Assistants/Health Care Support Workers supported by their employer to become registered nurses through practice based learning. Across the other ten HEIs full-time programmes are available, providing opportunities for all fields of registered nursing practice (Adult, Children’s, Learning Disabilities or Mental Health Nursing). Full time programmes of study are either three or four years duration leading to ordinary (Scottish Credit and Qualifications Framework [SCQF] level 9) or honours (SCQF Level 10) degrees (SCQF, 2017). HEIs work in partnership with health and social care providers to facilitate practice learning experiences for students. These practice based learning opportunities are mainly provided within the 14 NHS Scotland Health Boards. Scotland also has seven Special Health Boards but these are not included in this study as they do not routinely provide practice learning experiences for student nurses. The geographical diversity of the 10 HEIs offering full-time pre-registration nursing
programmes and their practice partners within the 14 NHS Scotland Boards is illustrated in Appendix 1 (p. 298).

Student nurses are supported by a variety of stakeholders during their programme of study. Within the HEI, students are supported by academic lecturers, staff in supporting departments, for example librarians and Academic Development Tutors (ADT), and peers. Each student is allocated an academic lecturer\(^7\) to provide academic and pastoral support throughout the programme. If a student has a disability they are also supported by the HEI Disability Service and usually a lecturer who is also ADC. In practice settings students are supported by at least one mentor who is usually a registered nurse in the same field of practice as the student is studying. The mentors are supported by colleagues and Practice Education Facilitators (PEFs)\(^8\) to provide conducive learning environments for the students. Where necessary AAs will also provide support for students while they are in the practice setting, particularly if the student is experiencing difficulties.

1.4 Overview of thesis

This thesis explores the concept of reasonable adjustments within pre-registration nursing education in Scotland. It examines how reasonable adjustments are identified and implemented in academic and practice settings, and what factors influence the availability of reasonable adjustments. The thesis contains seven chapters and supporting appendices.

Following this introductory chapter is a critical review of the literature (chapter 2) that was completed to understand what was already known about reasonable adjustments in pre-registration nursing education. The search strategy is detailed

\(^7\) For the purpose of this thesis the term Academic Advisor (AA) will encompass all academic lecturer roles (e.g. link lecturer, liaison lecturer, personal tutor) with responsibility to advise and support named students throughout their programme of study.

\(^8\) Practice Education Facilitators (PEFs) offer support to mentors of pre-registration healthcare students and work towards enhancing the practice learning environment (NES, 2017)
prior to a synthesised discussion of the empirical literature. Gaps in the existing literature are identified and the context of my research is established.

Chapter 3 begins with an overview of epistemology and the different approaches to research. The selection of pragmatism to underpin a sequential mixed methods study will be justified as an appropriate methodology for my research. The aim and objectives of the research are explicitly stated, and details of the research process described. Methodological rigour and reflexivity are also explored in this chapter.

Chapter 4 and Chapter 5 present, respectively, the findings from the two research phases. In Chapter 4, demographic information is displayed using graphs and tables with a supporting descriptive narrative. In Chapter 5, emergent themes from the Phase two data are discussed and supported with verbatim quotes.

The findings presented in Chapters 4 and 5 are synthesised in chapter 6 in the context of existing knowledge about reasonable adjustments to support students with disabilities. In this chapter I theorise that reasonable adjustment in pre-registration nursing education is a wicked problem. Strengths and limitations of the research processes employed are deliberated and the chapter ends with an exploration of how I have influenced the study data, findings and analytical processes.

Chapter 7 concludes this doctoral thesis. My unique contribution to the body of knowledge following this study is summarised. Implications for pre-registration nursing education are provided and recommendations for education, policy and future research are offered.

1.5 Summary
This introductory chapter has provided background to the study topic and a rationale for the aim to explore reasonable adjustments in pre-registration nursing education
in Scotland. A number of issues with regards to supporting students with disabilities to access pre-registration healthcare education have been highlighted. Not only is there a perceived lack of guidance, the guidance that is available is open to multiple interpretations about what type of support may be required and how that support may ‘reasonably’ be implemented. Questions have been generated regarding the meaning of ‘reasonable’ within the context of healthcare education and how to ascertain students with disabilities are fit to practise to enable access to professional registers. The context of nursing education in Scotland has been outlined. However before undertaking an empirical investigation I need to identify what research had already been completed about support for students with disabilities. Chapter 2 presents a comprehensive review of the literature.
Chapter 2: Review of the Literature

2.1 Introduction
It is important to appraise previous research as part of the research process to establish what is already known about a topic and to establish the quality of the existing research (Jesson et al., 2011; Moule & Goodman, 2014). Thus, this chapter describes the comprehensive background literature review that was completed as part of this thesis. The purpose of this review was to establish what was already known about reasonable adjustments within nursing education to both inform the context of my research and to identify specific gaps in the existing literature. O’Leary (2014) suggested reviewing the literature was an ongoing, cyclical and dynamic process. As a part-time PhD student this was particularly relevant because the initial structured review was undertaken in 2013 as part of the requirements for continuation on the PhD programme. Mindful that relevant literature was likely to have been published in the interim four years prior to the thesis being completed, alerts were set after the initial search to notify me of relevant newly published literature. The search was also repeated to ensure that the recent literature was incorporated and to establish how the body of knowledge had developed during this time.

2.2 Aim and objective
To identify and synthesise through a structured review of the literature, studies that have researched support for students with disabilities undertaking pre-registration healthcare education.

2.3 Search Strategy
Effective and robust literature reviewing requires the aptitude to systematically search the literature to access current knowledge (Timmins & McCabe, 2005; Sandelowski & Barroso, 2006; Beecroft et al., 2010). However, prior to the definitive
search an initial scoping exercise was undertaken in 2012 to expedite better understanding of the diverse range of literature available regarding support for students with disabilities in healthcare education, with a particular focus on reasonable adjustments (Davis et al., 2009). Mays et al. (2005) recommended the development of a focussed question to retrieve accurate and relevant information about the research topic. For this purpose the review question was:

‘What does the literature convey about reasonable adjustments for pre-registration healthcare education students with disabilities?’

The review question should initiate the identification of appropriate keywords to undertake the search (Levy, 2013). The three broad concepts ‘reasonable adjustment’, ‘healthcare students, and ‘disabilities’ were employed to focus the scoping search.

The search was conducted using EBSCOHost to access to several databases including Allied and Complementary Medicine Database (AMED); the Cumulative Index to Nursing and Allied Health Literature (CINAHL); and Medline. The three identified search terms yielded an excessive number of hits even when the terms were combined using the Boolean operator ‘AND’. An initial screening of the first few pages of hits highlighted several irrelevant records. It quickly became apparent that specific challenges would be encountered when attempting to access an appropriate body of literature because the nature of the terms identified resulted in a vast array of hits unrelated to the research focus. For instance the term ‘disability’ can link to a specific field of healthcare (i.e. learning disability). In the United Kingdom (UK), ‘learning disability’ is associated with impaired development causing reduced ability to be independent due to decreased ability to understand complex information or develop new skills (DoH, 2001). However in Australia, Canada and the United States of America (USA) ‘learning disability’ refers to learning disorders or learning problems with academic skills (Learning Disabilities Association of America, 2017). In the UK these issues would be learning difficulties (i.e. Specific Learning Difficulties [SpLD]) (Holland, 2011).Thus the preliminary search for literature resulted in copious hits linked specifically to learning disability nursing rather than ‘students with disabilities’ including SpLD per se. Researchers need to be wary to ensure they retrieve articles
within the correct context (Jesson et al., 2011). Therefore the choice of keywords is vital to accessing appropriate, context-specific, relevant literature (Timmins & McCabe, 2005).

Using the lessons learned from the scoping exercise, prior to undertaking the search for the initial comprehensive review of the literature in 2013 advice was sought from a subject librarian. This permitted the planning of a more systematic approach to access, appraise and combine the available literature (Sandelowski et al., 2007). The librarian recommended searching for ‘nursing’ rather than ‘healthcare’ in the first instance since nursing was the focus of the planned study. Papers about healthcare students were likely to be identified during the literature search, and could be included if relevant, especially if nursing students were involved in the reported research. Therefore the review question was altered to:

> ‘What does the literature convey about reasonable adjustments for pre-registration nursing students with disabilities?’

Key words were searched separately in each database to take advantage of subject terms and Medical Subject Headings (MeSH) used to aid cataloguing. This permitted international variations in spelling (e.g. UK English and USA English) and alternative terminology that had similar meaning to be highlighted (Mays et al., 2005). For example reasonable adjustments are also known as reasonable accommodations, and learning disabilities can be catalogued as learning disorders or mental retardation in the USA, or intellectual disabilities in the UK. The search was also developed through truncation to capture spelling variations and different word formats. Boolean operators were also used to expand and focus the search (Beecroft et al., 2010; Gray, 2017b).

With acknowledgement of the number of irrelevant hits retrieved using the all-encompassing nebulous term ‘disability’ the librarian suggested use of the Boolean operator ‘NOT’ to exclude literature pertaining to ‘learning disabilities’, ‘learning disorders’ and ‘Intellectual disabilities’. Further adopted advice to manage the number of hits and eliminate irrelevant literature was limiting the key word search to
the title and abstract of the literature. It is acknowledged that relevant papers may have been missed using this approach due to the differences in terminology and because article titles and abstracts may be unclear thus not linking coherently to the article content (Parahoo, 2006). Adopting this pragmatic approach allowed a balance between accessing relevant papers over irrelevant papers.

The databases AMED, CINAHL, Medline and Health Source (Nursing Academic edition) were searched using EBSCOhost and Applied Social Sciences Index and Abstracts (ASSIA) was searched via ProQuest. To focus the literature to be reviewed, inclusion and exclusion criteria were subsequently identified as shown in table 2.1.

**Table 2.1: Inclusion and Exclusion criteria (2013)**

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
<th>Limiters Applied to the Databases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student nurses with disabilities</td>
<td>Registered nurses with disabilities</td>
<td>Key words in the title or abstract</td>
</tr>
<tr>
<td>Data about reasonable adjustments (reasonable accommodations)</td>
<td>Non-healthcare professionals with disabilities</td>
<td>English Language</td>
</tr>
<tr>
<td></td>
<td>Learning disability nursing; intellectual disabilities, mental retardation, learning disorders</td>
<td>Publication dates from 1995</td>
</tr>
</tbody>
</table>

English language literature pertaining to nursing students with disabilities was included while literature concerning ‘learning disability nursing’ was excluded. Literature about non-healthcare professions was excluded as were papers about registered practitioners with disabilities because employers may have a different duty of care to employees compared with students. Filters and limiters were introduced systematically to access only relevant hits. The date limit was set from 1995, when the DDA (1995) was published, because this was deemed a critical juncture regarding the rights of individuals with disabilities. Title and abstracts were screened before full text articles were assessed for eligibility. Throughout the course of the study, any alerts were reviewed to highlight relevant literature from key
databases. Pertinent literature was continually sought and analysed as part of an iterative process to ensure my review was contemporary and the research process remained informed. The repeat literature search was completed on 30th September 2017 prior to writing my thesis. To ensure that the review only included research that informed current knowledge the inclusion and exclusion criteria for updated search were amended to focus purely on empirical literature (Table 2.2).

**Table 2.2: Inclusion and Exclusion criteria (2017)**

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
<th>Limiters Applied to the Databases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research about student nurses with disabilities</td>
<td>Research about registered nurses with disabilities</td>
<td>Key words in the title or abstract</td>
</tr>
<tr>
<td>Data about reasonable adjustments (reasonable accommodations)</td>
<td>Research about non-healthcare professionals with disabilities</td>
<td>English Language</td>
</tr>
<tr>
<td></td>
<td>Learning disability nursing; intellectual disabilities, mental retardation, learning disorders</td>
<td>Publication dates from 1995</td>
</tr>
</tbody>
</table>

Literature selected from the repeat search had already been discovered from the alerts. The search strategy is detailed in table 2.3
### Table 2.3: Search strategy (2013 and 2017)

**Databases:** AMED, ASSIA, CINAHL, MEDLINE, Health Source (Nursing/Academic Edition)

**Limiters:** Key words in the title or abstract, English language, publication dates from 1995

<table>
<thead>
<tr>
<th>No.</th>
<th>Search Terms and Search Combinations</th>
<th>Date limits: January 1995 – December 2013</th>
<th>Number of articles selected</th>
<th>Date limits: January 2014 – September 2017</th>
<th>Number of articles selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nursing student OR student nurse OR undergraduate student nurses</td>
<td>39737</td>
<td></td>
<td>13724</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>&quot;nurs* education&quot; OR (MH &quot;Education, Nursing&quot;) OR (MH &quot;Education, Nursing, Baccalaureate&quot;)</td>
<td>84397</td>
<td></td>
<td>34026</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>(MH &quot;Students, Disabled&quot;) OR &quot;disability or disabilities or disabled&quot;</td>
<td>196408</td>
<td></td>
<td>24743</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Reasonable adjustment OR reasonable accommodation</td>
<td>615</td>
<td></td>
<td>267</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>(MH &quot;Intellectual Disability&quot;) OR (MH &quot;Learning Disorders&quot;) OR (MH &quot;Disabled&quot;) OR &quot;learning disabilities or intellectual disabilities or mental retardation or learning difficulties or special needs&quot;</td>
<td>85934</td>
<td></td>
<td>18471</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>#1 AND #3 (Nursing student OR student nurse OR undergraduate) student nurses AND ((MH &quot;Students, Disabled&quot;) OR &quot;disability or disabilities or disabled&quot;)</td>
<td>323</td>
<td>65</td>
<td>327</td>
<td>67</td>
</tr>
<tr>
<td>7</td>
<td>#2 AND #4 (&quot;nurs* education&quot; OR (MH &quot;Education, Nursing&quot;) OR (MH &quot;Education, Nursing, Baccalaureate&quot;)) AND (Reasonable adjustment OR reasonable accommodation)</td>
<td>16</td>
<td>5</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>#3 AND #4</td>
<td>66</td>
<td>22</td>
<td>18</td>
<td>12</td>
</tr>
</tbody>
</table>
While it was important to access pertinent research-based literature, it was also necessary to review the grey literature (Petticrew & Roberts, 2006). This captured additional significant detail about the review topic to inform the background information and discussion. Moreover, manual searching techniques were also employed to identify other relevant sources of literature that may have been missed using the database searching strategy outlined above. For example the search focussed on nursing students but articles were retrieved about other students from other healthcare professions through manual searching, as the subject librarian had indicated. Reference lists within journal articles, guidelines, policies and unpublished
theses were examined and the journal ‘Disability and Society’ was also searched due to the focus and scope of articles published. Webpages of Government Health Departments and legislation, governing bodies of registered health care professionals (e.g. HCPC and NMC), and organisations supporting individuals with disabilities were also searched for resources which underpinned current approaches to supporting students with disabilities in healthcare education. Figure 2.1 presents a PRISMA diagram of the literature selection process (PRISMA, 2009)

![Figure 2.1 PRISMA diagram](image)

- 4076 Records identified through database searching (December 2013)
- 31 Additional records identified through other sources
- 244 duplicates removed leaving 3863 records
- Limits applied: English language; published from 1995; keywords in title or abstract)
- 3287 records excluded once limits applied
- 576 titles and abstracts screened
- 430 records excluded
- 440 additional records identified through alerts / updated database search (September 2017)
- 315 records excluded after examination of title and abstract
- 271 Full-text papers assessed for eligibility
- 32 Empirical papers included in review
- 239 Full text articles excluded: Study about employees/registered professionals Not healthcare students Study duplicate Not empirical papers: Guidance Discussion paper Literature/systematic review Opinion paper
2.4 Synopsis of literature reviewed
Data was extracted from 32 empirical papers to collate information pertaining to the review question using a Microsoft Excel spread sheet. Important information including the author(s), article title, aim, country where the research was undertaken, participants, method and analysis and key findings was recorded. Organising key study characteristics in this way permitted comparisons to be made between papers and supported the identification of the themes from the literature (Moule & Goodman, 2014). Gaps in existing knowledge were also detected (Gray, 2017b). Appendix 2 (p. 299) is the data extraction table.

Structured reviews designed to establish the availability of literature do not require quality appraisal, particularly where the literature is heterogeneous (Arksey & O’Malley, 2005). Due to the dearth of research about reasonable adjustments in pre-registration nursing education it was not my intention to exclude papers on the basis of quality appraisal. However awareness that knowledge growth relies on critical appraisal of studies (Gray & Grove, 2017) and in recognition of the opportunity to develop my appraisal skills, an appraisal process was undertaken.

Although appraisal of quantitative research is widely accepted, the appraisal of qualitative and mixed methods research is debated (Dixon-Woods et al., 2004b; Rees et al., 2010). However it was acknowledged that any study should be able to demonstrate clear aims, appropriate methodology and relevant sampling as well as clearly articulated findings and an indication of transferability (Dixon-Woods et al., 2004b; Rees et al., 2010). Therefore a hybrid checklist was developed from the Critical Appraisal Skills Programme (CASP) (2017) checklists (Appendix 3, p. 331) to accommodate the different research approaches used by the papers selected for this review. It was important to be cognisant that papers were published according to journal guidelines and styles (Sandelowski & Barroso, 2006; Rees et al., 2010) and consequently may have had limited opportunity to provide sufficient detail about certain elements to fully inform the appraisal. In part this explained the inclusion of the ‘cannot tell’ (?) option in the appraisal checklist.
All of the studies adopted appropriate methodologies for the research but a few studies were unclear or did not justify their design (Kolanko, 2003; Crouch, 2008; Crouch, 2010). There was a lack of detail about some recruitment strategies (White, 2007; Crouch, 2008; Crouch, 2010; Griffiths et al., 2010; Tee et al., 2010; Tee & Cowen, 2012; Hargreaves et al., 2014) and only four papers explicitly mentioned the relationship of the researcher and participants (Morris & Turnbull, 2006; Carey, 2012; Ashcroft & Lutfiyya, 2013; Howlin et al., 2014). Ethical approval was confirmed by the majority of papers (n = 25) but overall there was insufficient detail about processes for consent and preserving ethical principles. Seven papers did not mention ethical considerations (Ingram, 1997; Maheady, 1999; Rangel, et al., 2001; Kolanko, 2003; Sowers & Smith, 2004a; Sowers & Smith, 2004b; Hill, 2015).

Non-probability sampling was adopted by all papers. Although from a positivist perspective probability sampling is preferred to access a representative sample, (Procter et al., 2010), studies will choose a sampling technique that will facilitate access to data to answer their research question and purpose. Thus convenience and purposive sampling were appropriately used by many of the studies to access participants at a particular time or location and/or to ensure participants could provide the required data (Parahoo, 2006; Moule & Goodman, 2014). In grounded theory research theoretical sampling is used to access additional participants until theoretical saturation is reached (Procter et al., 2010; Moule & Goodman, 2014). However Ashcroft & Lutfiyya (2013) defended the adoption of convenience sampling in their grounded theory research as more practical due to time and availability of participants.

Almost half of the selected studies accessed their participants via a study population from one healthcare education programme or one HEI, while others accessed participants across HEIs and healthcare programmes, (Colon 1997; Kolanko, 2003; Sowers & Smith, 2004a; Sowers & Smith, 2004b; Ashcroft & Lutfiyya, 2013; Evans, 2014a; Evans, 2014b; Hargreaves et al., 2014; Nolan et al., 2014; Shpigelman et al., 2016) and even nationally (Ingram, 1997; Maheady, 1999; Rangel et al., 2001; Stanley et al., 2007; Opie & Taylor, 2008; Murphy, 2011). Accessing multiple programmes and
HEIs increased the potential study population (Procter et al., 2010) and improved the transferability of the findings (Polit & Beck, 2012).

Sample sizes ranged from one for a case study (Griffiths et al., 2010) to 353 for a mixed methods study (Hill, 2015). The qualitative papers reported sample sizes from four to 60. Sample size is not a crucial feature in qualitative research because the focus is about accessing rich, in-depth data from participants (Grove, 2017c). Some authors of the selected papers acknowledged these points and identified the limitations of small sample sizes (Brown et al., 2006; White, 2007; Tee et al., 2010; Child & Langford, 2011; Ridley, 2011; Carey, 2012; Evans, 2014a; Evans, 2014b; Howlin et al., 2014b).

The majority of studies collected data by appropriate means. Seven papers reported quantitative research using postal or on-line surveys (Colon, 1997; Rangel et al., 2001; Sowers & Smith, 2004a; Sowers & Smith, 2004b; Wray et al., 2013; Nolan et al., 2014; Shpigelman et al., 2016;). Surveys and interviews were used by four studies (Murphy, 2011; Sanderson-Mann et al., 2012; Hargreaves et al., 2014; Hill, 2015). Use of multiple methods of data collection provides access to a broader range of data to improve the accuracy and validity of results (Simons & Lathlean, 2010; Moule & Goodman, 2014). A survey is a quick, inexpensive means to collect data to describe attitudes, behaviour, knowledge and processes (Parahoo, 2006; McKenna et al., 2010). The data is gathered in a standardised way so that conclusions can be drawn about a specified population (Jones & Rattray, 2010).

Shpigelman et al., (2016) used two validated questionnaires (Attitude Towards Disabled Persons and Multidimensional Attitudes Scale Towards People with Disabilities) and established reliability through Cronbach Alpha’s Coefficient (Jones & Rattray, 2010). The other ten studies developed their own surveys to access the information they sought. Four studies included closed questions answered by forced selection or Likert scale (Rangel et al., 2001; Sowers & Smith, 2004a; Sowers & Smith 2004b; Sanderson-Mann et al., 2012), while the others included closed and open questions to provide opportunity for respondents to expand their answers for some
questions (Colon, 1997; Murphy, 2011; Wray et al, 2013; Nolan et al., 2014) which adds depth. There was no specific detail about question types in two papers (Hargreaves et al., 2014; Hill, 2015). Piloting is essential to establish content validity (Jones & Rattray, 2010; Moule & Goodman, 2014). Only two papers reported pilot studies (Colon, 1997; Nolan et al., 2014) and three surveys underwent expert review to check validity (Rangel, et al., 2001; Sanderson-Mann et al., 2012). Reliability and validity were not mentioned in the other five papers (Sowers & Smith, 2004a; Sowers & Smith 2004b; Wray et al, 2013; Hargreaves et al., 2014; Hill, 2015).

Colon (1997), Sanderson-Mann et al. (2012), Wray et al. (2013) and Shpigelman et al. (2016) reported good response rates of 75% or above (Moule & Goodman, 2014). Although response rates below 50% impact on the representativeness of the sample, mailed questionnaires often have returns between 25% - 35% (Grove, 2017d). One postal survey achieved 65% response rate (Rangel et al., 2001) but Murphy (2011) (postal survey) only received 31% return, Sowers & Smith (2004a) (postal survey) 36%, and Nolan et al. (2014) (students’ online survey) only 40% response rate. Nolan et al. (2014) were unable to provide a response rate for the practice educators participants because the original sample size was not known. Sowers & Smith (2004b); Hargreaves et al., (2014) and Hill (2015) did not provide response rates. However Sowers & Smith (2004b) explained that several participants chose to selectively answer the questionnaire which significantly impacted on the results. Failure of respondents to answer questions or complete a questionnaire as designed impacts on the validity (Grove, 2017d), a quality feature Sowers & Smith (2004b) did not mention.

Descriptive statistics were used appropriately by all 11 studies. In addition Hill (2015) and Shpigelman et al. (2016) included inferential statistic to establish correlation and association respectively. Hill (2015) used Chi square analyses which demonstrated significant differences between students with and without disabilities. Shpigelman et al, (2016) found a significant correlation between attitudes to people with disabilities and colleagues with disabilities.
In-depth interviews to collect rich data from the participants’ experiences and perspectives (Tod, 2010) were suitably used by 12 qualitative studies as well as the four multiple method studies previously mentioned (Murphy, 2011; Sanderson-Mann et al., 2012; Hargreaves et al., 2014; Hill, 2015). Three papers reported Grounded theory (Crouch, 2008; Crouch, 2010; Ashcroft & Lutfiyya, 2013), four exploratory studies (Morris & Turnbull, 2006; Stanley et al., 2007; Ridley, 2011; Howlin et al., 2014b), two phenomenology (Brown et al., 2006; Child & Langford, 2011), and one phenomenography (Carey, 2012). Discourse-based designs were appropriate for the studies reported by Evans (2014a, 2014b). The two action research studies used varied data collection methods in the different phases in action research (Meyer, 2010). Botham & Nicholson (2014) used focus groups and questionnaires while Tee & Cowen (2012) employed interviews and questionnaires.

Thematic content analysis was appropriately adopted to analyse interview data by 15 studies (Kolanko, 2003; Brown et al., 2006; Morris & Turnbull, 2006; Stanley et al., 2007; White, 2007; Tee et al., 2010; Child & Langford, 2011; Murphy, 2011; Ridley, 2011; Tee & Cowen, 2012; Botham & Nicholson, 2014; Evans, 2014a; Howlin et al., 2014b; Hargreaves et al., 2014; Hill, 2015). Thematic analysis aims to present the important points from the participants’ perspectives (Green & Thorogood, 2014; Holloway & Galvin, 2017). As Maheady (1999) researched the experiences of nursing students, opting for a modified version of Colaizzi’s approach to analysis for descriptive phenomenology was relevant (Holloway & Galvin, 2017). Sanderson-Mann et al. (2012) used framework analysis to provide a more structured approach to data analysis, while Evans (2014b) aptly undertook discourse analysis to explore and explain the way participants used language to discuss the identities of students with dyslexia.

Researching a particular event or experience in a specific context aligned with case study research (Clarke & Reed, 2010). Five papers appropriately involved case study research with documentary analysis (Maheady, 1999; Kolanko, 2003; White, 2007; Griffiths et al., 2010; Tee et al., 2010). The use of documents was an efficient way to access key information about the cases involved in the studies with minimal concern
of data being recorded with researcher bias. However, the documentary data may have been incomplete or inaccurate (Moule & Goodman, 2014). Maheady (1999) also used observation, while White (2007) included surveys but no specific detail about the data collection tools were provided. However the findings from stage 1 were used by White (2007) to underpin a second stage longitudinal study of nursing students to explore their experiences of practice placements during their programme. The two-year study allowed changes to described challenges and management strategies to be recorded over time (Moule & Goodman, 2014). Tee et al. (2010) also used mixed methods (demographic data, case summaries, interviews and reflective accounts). Delphi technique with three-rounds was employed by two papers to gain consensus from academic staff about essential functions of a physiotherapist (Ingram, 1997; Opie & Taylor, 2008).

Eighteen studies were undertaken in the UK (Morris & Turnbull, 2006, Stanley et al., 2007; White, 2007; Crouch, 2008; Opie, & Taylor, 2008; Crouch, 2010; Griffiths et al., 2010; Tee et al., 2010, Child & Langford, 2011; Murphy, 2011; Ridley, 2011; Carey, 2012; Sanderson-Mann et al., 2012; Tee & Cowen, 2012; Wray et al., 2013; Botham & Nicholson, 2014; Hargreaves et al., 2014; Hill, 2015). All of the UK-based research was undertaken in England apart from Stanley et al., (2007) completed across Great Britain (England, Scotland and Wales); Murphy (2011) across the UK and Hill (2015) in Scotland. The other studies were international. One study was conducted in Australia (Brown et al., 2006), one in Canada (Ashcroft & Lutfiyya, 2013), four in the Republic of Ireland (Evans, 2014a; Evans, 2014b; Howlin et al., 2014b; Nolan et al., 2014); one in Israel (Shpigelman et al., 2016) and seven in USA (Colon, 1997; Ingram, 1997; Maheady, 1999; Rangel et al., 2001; Kolanko, 2003; Sowers & Smith, 2004a; Sowers & Smith, 2004b).

The perspectives of healthcare students were included in several studies. Twenty two papers focussed their studies on nursing (Colon, 1997; Maheady, 1999; Rangel et al., 2001; Kolanko, 2003; Sowers & Smith, 2004a; Sowers & Smith, 2004b; Morris & Turnbull, 2006; White, 2007; Griffiths et al., 2010; Tee et al., 2010; Child & Langford, 2011; Ridley, 2011; Carey, 2012; Sanderson-Mann et al., 2012; Tee & Cowen, 2012;
Ashcroft & Lutfiyya, 2013; Wray et al., 2013; Evans, 2014a; Evans, 2014b; Howlin et al., 2014b; Nolan et al., 2014; Shpigelman et al., 2016) and two studies included nursing and midwifery students (Crouch, 2008; Crouch, 2010). Murphy (2011) studied radiography students while physiotherapy or physical therapy was the focus of Ingram (1997); Rangel et al (2001); Opie & Taylor, (2008) and Botham & Nicholson (2014). Three papers included participants from a range of healthcare professions (Brown et al., 2006; Hargreaves et al., 2014, Nolan et al., 2014). Social work and teaching students were included in two studies along with nursing students (Stanley et al, 2007) and healthcare professional students (Hill, 2015).

Ten papers reported solely from the perspective of healthcare students (Kolanko, 2003; Brown et al., 2006; Morris & Turnbull, 2006; Child & Langford, 2011; Murphy, 2011; Ridley, 2011; Wray et al., 2013; Evans, 2014a; Howlin et al., 2014b; Shpigelman et al., 2016). Nine studies only involved staff; academic-based staff (Sowers & Smith, 2004a; Sowers & Smith, 2004b; Opie & Taylor, 2008; Carey, 2012; Ashcroft & Lutfiyya, 2013; Evans, 2014b); practice-based staff (Crouch, 2008; Nolan et al., 2014) and Student Practice Learning Advisors (Tee et al., 2010). While three papers reported from programme viewpoints (Colon, 1997; Ingram, 1997; Rangel et al., 2001), both students and staff were involved in 10 other studies (Maheady, 1999; Stanley et al., 2007; White, 2007; Crouch, 2010; Griffiths et al., 2010; Sanderson-Mann et al., 2012; Tee & Cowen, 2012; Botham & Nicholson, 2014; Hargreaves et al., 2014; Nolan et al., 2014).

The selected empirical papers were generally concerned with presenting explorations of the experiences of students with disabilities (Maheady, 1999; Kolanko, 2003; Brown et al., 2006; Morris & Turnbull, 2006; Crouch, 2008; Child & Langford, 2011; Ridley, 2011) while some papers offered comparisons between disabled and non-disabled students (Crouch, 2010; Sanderson-Mann et al., 2012; Hill 2015). Other studies reported findings about support for students with disabilities, mainly in practice settings (Colon, 1997; White, 2007; Griffiths et al., 2010; Tee et al., 2010; Tee & Cowen, 2012; Botham & Nicholson 2014; Howlin et al 2014b; Nolan et al., 2014). Issues associated with disclosure (Stanley et al., 2007; Evans, 2014a; Evans, 2014b);
and issues preparing disabled healthcare practitioners including nursing students for practice were also explored (Hargreaves et al., 2014).

Three studies focussed on identifying what essential functions require demonstrating by physical therapy/physiotherapy students to access and progress through the educational programme (Ingram, 1997; Rangel et al., 2001; Opie & Taylor, 2008). Educators’ perspectives of students with disabilities were also studied (Sowers & Smith, 2004a; Sowers & Smith, 2004b; Ashcroft & Lutfiyya 2013). Evans (2014b) explored the construction of identities for students with dyslexia from nursing lecturers’ perspectives and from the perspective of students (Evans, 2014a). The integration of disabled students has also been researched (Shpigelman et al., 2016) as has the inclusive curriculum (Carey, 2012; Wray et al., 2013). While the majority of papers considered disability in a general way, 11 papers specified a specific type of disability. Ten papers focussed their research around students with dyslexia, (Morris & Turnbull, 2006; White, 2007; Crouch, 2008; Crouch, 2010; Child & Langford, 2011; Murphy, 2011; Ridley, 2011; Sanderson-Mann et al., 2012; Evans, 2014a; Evans, 2014b); and one study involved student nurses with SpLD (Wray et al., 2013), which includes dyslexia.

From the limited information provided it was difficult to establish the rigour from some papers (Colon, 1997; Rangel et al., 2001; Sowers & Smith, 2004a; Sowers & Smith, 2004b; Crouch, 2008; Crouch, 2010; Griffiths et al., 2010; Tee et al., 2010; Murphy, 2011; Ridley, 2011; Tee & Cowen, 2012; Hill, 2015). However, all studies offered clear statements of findings and offered value to the body of knowledge about supporting healthcare students with disabilities.

Discussion of empirical reviews should be organised by topic to permit synthesis of findings (Gray, 2017b). Thematic analysis has been recommended to facilitate the synthesis of heterogeneous research (Dixon-Woods et al., 2004a). This was a useful strategy to identify and present an overview of the selected literature. The themes that emerged from the review of the selected papers will be discussed in section 2.5.
2.5 Themes from Literature
Having engaged with an iterative process to ensure that the literature review was contemporary and contextualised, the original themes from 2013 were reviewed when the search process ended in September 2017. Reflection on the selected literature and my increased knowledge from engagement in the research process influenced my analysis and synthesis of the literature. While it may be deemed unusual for a literature review to be completed after data collection and analysis, arguably I have embraced a pragmatic approach to ensure that the study is outcome focussed (Johnson & Onwuegbuzie, 2004; Shannon-Baker, 2016). Indeed reviewing the literature after data collection and analysis is advocated by for example, grounded theorists to establish the hypothesis generated from the research (Gray, 2017b).

The initial structured review in 2013 identified four main themes from the selected papers:

1. Disability, the Law and Nurse Education
2. Professional Regulation
3. Attitudes
4. Supporting students with disabilities in healthcare education

When the themes emerged it was acknowledged that the first theme was mainly background. Thus I decided that the revised content was better placed in the introductory chapter to set the scene for the thesis. During the final data extraction from the 32 selected papers I realised some initial themes were too narrow. For example, attitudes remained a recurrent theme but to fully represent the content of the literature, knowledge and the influence on decision-making had to be included too. Similarly, while professional regulation was a key entity in the literature, I realised that the theme required broadening to capture related concepts like guidelines and policies. There was also a need to incorporate procedures linked to policies and regulations identified in the literature.
In contrast, the fourth initial theme ‘supporting students with disabilities in healthcare education’ was too broad. It was apparent that disclosure should be separated from content about the location of the students’ education. This was because the influence of the educational setting was pivotal to understanding the level and type of available support. Therefore it also merited being an independent theme. The final theme that emerged from the literature related to risk.

The five definitive themes that emerged from the literature review were generated from their level of occurrence in the papers and their link to the review question. Not every theme was evident in every paper and there was obvious overlap between some of the themes. The following sections will discuss the themes:

1. Attitudes, knowledge and decision making
2. Guidelines, policy and procedure
3. Disclosure
4. Influence of the education location
5. Risk

In acknowledgement of the different terminology used in the literature, the following words will be used to capture similar terms where appropriate:

- Reasonable adjustments (reasonable adjustments, reasonable accommodation)
- Practice (practice, clinical)
- Mentors (mentors, practice educators, preceptors)

2.5.1 Attitudes, knowledge and decision-making
Within the reviewed literature, attitudes and knowledge about disability influenced decisions regarding the availability and provision of support for students with disabilities. According to Ashcroft & Lutfiyya (2013), all 17 nurse educators believed that students with disabilities had the potential to complete pre-registration nursing education and therefore should be offered the opportunity to access programmes. However contrary to the participants’ beliefs, it was reported the educators were only confident students would successfully meet the academic demands of the
programmes. The participants were less certain about success in practice. Concerns were raised about the ability of students to perform in a timely manner in practice and about the onerous levels of support and supervision that students demanded in practice (Ashcroft & Lutfiyya, 2013; Nolan et al., 2014). Likewise the metaphor of babysitting was used by one of Evans (2014b) nurse lecturer participants to explain their negative view of supporting students with disabilities who could not meet the level of performance expected from a student nurse.

Studies have reported practice staff’s negative attitudes ostensibly resulted from limited awareness of the learning needs and support requirements of students with disabilities (White, 2007; Griffiths et al., 2010; Howlin et al., 2014b). Student nurses were expected to competently perform clinical skills and demonstrate their ability to be fit to practise through meeting the demands of being a nurse in practice (Hargreaves et al., 2014). Lack of knowledge influenced decisions about reasonable adjustments, and opinions about how feasible it was for people with disabilities to become safe and effective healthcare professionals (Evans, 2014a; Evans, 2014b; Hargreaves et al., 2014; Shpigelman et al., 2016). In part decisions about support were influenced by whether the disability was hidden or visible because support for visible disabilities was reportedly easier to comprehend (Sowers et al., 2004a). According to Carey (2012) decisions about support to enable students to safely complete essential nursing care were based on the students’ perceived ability. The implication was levels of support for students varied but practitioner-lecturers raised concerns similar levels of support would not be available to registered practitioners (Sanderson-Mann et al., 2012). This correlated with reported perceptions that nursing was only suitable for the ‘able’ (Evans, 2014b), those not requiring ‘extensive support’.

The exploration of practice experiences of student nurses with dyslexia described several occurrences where mentors displayed discriminatory attitudes towards students (Morris and Turnbull, 2006). Student radiographers with dyslexia had comparable experiences (Murphy, 2011). However students without dyslexia did not convey similar experiences of prejudicial behaviour (Child & Langford, 2011; Murphy,
Attitudinal obstacles to student progression were highlighted in several papers (Sowers & Smith, 2004a; Morris & Turnbull, 2006; Stanley et al., 2007; Opie & Taylor, 2008; Griffiths et al., 2010; Howlin et al., 2014b; Shpigelman et al., 2016). The attitudes were underpinned by the medical model of disability and reflected examples of underlying prejudice and stereotyping (Murphy, 2011; Hargreaves et al., 2014; Hill, 2015). Educators’ perspectives were also linked to previous experiences of students with disabilities (Ashcroft & Lutfiyya, 2013). The level of acceptance of students with disabilities by academic staff and peers was at best variable, which could leave students socially isolated (Kolanko, 2003; Murphy, 2011; Sanderson-Mann et al., 2012; Shpigelman et al., 2016). Ridley’s (2011) small-scale study of seven nursing students with dyslexia further illustrated that students were less likely to seek help when mentors displayed unaccommodating attitudes, attitudes which one study participant declared as incompatible with the caring role.

Predictably, some of the studies evidenced a link between mentors’ attitudes, resultant support and student performance (Maheady, 1999; Morris & Turnbull, 2006; Crouch, 2008; Child & Langford, 2011; Ridley, 2011). Attitudes impacted on students’ self-esteem and confidence and influenced students’ performance (Maheady, 1999; Brown et al., 2006; White, 2007; Murphy, 2011). This finding echoed the experiences of Crouch’s (2008) 16 students with dyslexia. Mentors were judgemental about students’ performance but mentors lacked awareness of the challenges of multi-tasking associated with dyslexia, which resulted in ineffective support measures and consequently impacted on students’ performance (Crouch, 2008).

The perceptions of student nurses were corroborated by mentors and educators (Crouch, 2008; Sanderson-Mann et al., 2012). Educators’ willingness to provide reasonable adjustments for students with disabilities was determined by their knowledge of their responsibilities (Colon, 1997; Maheady, 1999; Tee & Cowen, 2012; Ashcroft & Lutfiyya, 2013; Hargreaves et al., 2014; Evans 2014b). Although only three mentors participated in Crouch’s study, it was highlighted inappropriate support also resulted from a desire not to broach a ‘sensitive’ issue with students, as
well as mentors’ lack of knowledge. Likewise, practitioner-lecturers had limited knowledge about the effects of dyslexia although there was some awareness about associated stigma and relevant equality legislation (Sanderson-Mann et al., 2012). Interestingly Ashcroft & Lutfiyya (2013) reported that mentors’ perspectives were affected by their field of nursing practice. Mental Health nurses were more positive about students with mental health disabilities whereas adult nurses held more negative perspectives. The influence of attitudes was clearly the greatest barrier for people with disabilities gaining access to equal opportunities to become healthcare professionals.

Several studies admitted levels of knowledge and understanding required to be improved to address the negative attitudes and misperceptions about disabilities (Sowers & Smith, 2004a; Sowers & Smith, 2004b; White, 2007; Child & Langford, 2011; Sanderson-Mann et al., 2012; Tee & Cowen, 2012; Botham & Nicholson, 2014; Shpigelman et al., 2016). Several authors recognised the need to correct misperceptions about people with disabilities (Tee & Cowen, 2012; Hargreaves et al., 2014; Howlin et al., 2014b; Nolan et al., 2014). Therefore it was suggested existing attitudes and prejudices should be explored so that they could be tackled effectively. Provision of on-going staff education was also recommended to improve knowledge about disability and information about how to facilitate student learning to promote positive experiences (Colon, 1997; Brown et al., 2006; Botham & Nicholson, 2014). The benefits of peer support were also highlighted as students with disabilities were assisted by other students (Maheady, 1999). Indeed Brown et al. (2006) and Child & Langford (2011) recommended the implementation of student mentor programmes. The resulting positive attitudes facilitated good learning experiences for healthcare students with disabilities (Kolanko, 2003; Stanley et al., 2007; Crouch, 2008; Griffiths et al., 2010; Tee et al., 2010; Child & Langford, 2011; Ridley, 2011).

Increased awareness of disability associated issues also improved the willingness of staff to deal with issues (Botham & Nicholson, 2014). Brown et al. (2006) established from interviews with students that knowledge and understanding of disabilities, approachability and an interest in supervision were perceived to influence educators’
motivation to make reasonable adjustments to meet students’ support needs. However Maheady (1999) and Stanley et al., (2007) cautioned there could be an element of over-protection by mentors. Paternalism was a risk (Evans, 2014b), as was patronising behaviour by mentors who ‘took over’ from students undertaking clinical activities, leaving students nervous and anxious due to the level of scrutiny they were under (Crouch, 2008). Consequently learning opportunities were interrupted and limited (White, 2007). However it was suggested attitudes and behaviours would improve if the focus was moved from the challenges associated with supporting students with disabilities to facilitating support options to meet students’ needs (Opie & Taylor, 2008).

The selected papers included some examples of education which fostered positive perspectives and support. An in-service training programme improved understanding of innovative ways to teach and support students with disabilities, reduced concerns of academic staff, and positively enhanced perceptions that students with disabilities would become effective registered professionals (Sowers & Smith, 2004b). The presentation of positive case studies, direct contact with students demonstrating their abilities and the supportive framework evaluated by Griffiths et al (2010) also resulted in improved support available to students with disabilities. Similar positive feedback from their evaluation of mentor preparation resources for supporting students with disabilities was received by Tee & Cowen (2012). Only attitude change through education and discussion ensured the focus moved to the possibilities of what individuals with disabilities could achieve rather than focussing on the challenges associated with concentrating on what cannot be achieved (Opie & Taylor, 2008; Child & Langford, 2011). Howlin et al (2014b) confirmed achievement relied on decisions to implement reasonable adjustments to support students, particularly in practice. However based on the variable knowledge and understanding of disability support, decisions about reasonable adjustments need to be underpinned by guidelines and policy, using an agreed process, to ensure equity and fairness.
2.5.2 Guidelines, policy and procedure

The legal responsibilities of nursing education to support students with disabilities were recognised in the literature (Colon, 1997; Maheady, 1999; Tee & Cowen, 2012; Ashcroft & Lutfiyya, 2013; Evans 2014b; Hargreaves et al., 2014). However applying the legislation to practice settings was more difficult than academic settings (Hargreaves et al., 2014) because fitness to practise policies were believed to be discriminatory due to focusing on disability rather than ability (Evans, 2014b). Several authors acknowledged tensions between the equality legislation and fitness to practise (Sanderson-Mann et al., 2012; Hargreaves et al., 2014; Botham & Nicholson, 2014; Nolan et al., 2014), equality legislation and duty of care to patients (White, 2007; Hargreaves et al., 2014; Evans, 2014b), wanting to know about disability and students' legal right to confidentiality (Hargreaves et al., 2014), fitness to practise and academic standards (Carey, 2012), and meeting students’ needs and practice demands (Howlin et al., 2014b).

Although professional guidance about fitness to practise was available, as outlined in section 1.2.2, guidance from professional bodies and HEIs to practice partners was deemed inconsistent (Carey, 2012). Several authors implied that the nebulous nature of professional guidance resulted in various interpretations particularly in relation to fitness to practise (Morris & Turnbull, 2006; Stanley et al., 2007; Griffiths et al., 2010, Carey, 2012). This was despite the fact that national professional standards and government policies should promote common expectations of healthcare students across the sector (Carey, 2012). Research from almost 20 years ago found guidelines were not always implemented (Maheady, 1999) and this does not appear to have changed because limited adherence to agreed guidelines and procedures was reported more recently (Botham & Nicholson, 2014; Howlin et al., 2014b). Lack of consistency in decision making processes regarding fitness was attributed to nurse education stakeholders interpreting the requirements for nursing education at a local and individual level (Morris & Turnbull, 2006; Carey, 2012). Consequently individual and isolated decisions resulted in different support in different settings (Ashcroft & Lutfiyya, 2013).
Available information and guidance on suggested support measures for students with disabilities was focussed on the academic setting, with limited consideration of practice settings (Sowers & Smith, 2004a; Ashcroft & Lutfiyya, 2013). Adjustments in academic settings were deemed relatively uncomplicated in comparison to practice settings because identifying ‘reasonableness’ in diverse practice settings was very difficult (Stanley et al., 2007; Tee et al., 2010; Hargreaves et al., 2014). Much of the dubiety about support and reasonable adjustments stemmed from diverse views about how best to meet the needs of students with disabilities while also maintaining professional standards (Howlin et al., 2014b) particularly when there was concern reasonable adjustments undermined practice assessments (Hargreaves et al., 2014). Resulting subjectivity with regards to the interpretation of the term ‘reasonable’ contributed to the overall ambiguity and apparent disarray of student experiences reported in the literature (Ingram, 1997; Brown et al., 2006; Morris & Turnbull, 2006; White, 2007; Crouch, 2008; Griffiths et al., 2010; Tee et al., 2010; Child & Langford, 2011; Carey, 2012, Ashcroft & Lutfiyya, 2013). Ridley (2011) asserted only case law would clarify the interpretation and application of reasonable adjustments in nursing education.

Equal opportunities for learning can be achieved through an inclusive curriculum and universal design for learning which can be adapted to individual learning styles (Sowers & Smith, 2004b; Evans, 2014a). Therefore accessible learning and inclusion were considered crucial for all students regardless of disability or learning style (Opie & Taylor, 2008; Child & Langford, 2011; Murphy, 2011). Embedded specialist support accessible by all student nurses in HEIs was evaluated as successful in academic settings (Wray et al., 2013). While embedded study skills sessions facilitated faster liaison with HEI support services, the evaluations also illustrated a reduced need for reasonable adjustments (Sowers & Smith, 2004b; Wray et al., 2013). Inclusive approaches were also recommended for practice settings because participants in Wray et al’s (2013) evaluation recognised the benefits of applying learning techniques to practice settings especially as students with disabilities reported similar issues in practice to students without disabilities (Hill, 2015).
Carey’s (2012) exploration of 15 nurse educators’ experiences and opinions of inclusive curricula found that the caring nature of nursing helped prepare educators to be inclusive. Similarly caring and nurturing motivated Colon’s (1997) participants to provide an environment conducive to learning and success. However in contrast, Hargreaves et al. (2014) discovered mentoring students with disabilities was perceived as taking too much time. Likewise, Evans (2014b) reported participants did not have time or tendency to nurture students due to the need to meet the demands of the job. Moreover Carey (2012) proposed that the didactic and directive nature of nursing education contributed to the inflexibility and delay in adopting inclusive practices. However Murphy (2011) attributed the reluctance to the impact of negative attitudes, despite evidence that the support was beneficial for all learners. Therefore practice settings were less flexible, the extent of inclusion was restricted, and adjustments were limited by perceived risks to patient safety (Stanley et al., 2007; Carey, 2012; Hargreaves et al., 2014).

Several authors affirmed the need to share good practice regarding supporting students with disabilities to gather evidence to inform guidelines, policies and procedures about reasonable adjustments within the specific context of healthcare education (Ingram, 1997; Kolanko, 2003; Stanley et al., 2007; Griffiths et al., 2010; Tee et al., 2010; Child & Langford, 2011; Sanderson-Mann et al., 2012; Ashcroft & Lutfiyya, 2013; Wray et al., 2013; Hargreaves et al., 2014; Howlin et al., 2014b). Although there was a dearth of literature that evaluated the effectiveness of identified support strategies and reasonable adjustments, some successful strategies for identifying and implementing reasonable adjustments were reported (Griffiths et al., 2010; Tee et al., 2010; Murphy, 2011; Wray et al., 2013; Botham & Nicholson, 2014; Howlin et al., 2014b; Nolan et al., 2014). For example reciting students’ stories about experiences of SpLD provided knowledge to underpin national policy/guidance and programme evaluations (Kolanko, 2003). In fact Tee & Cowen (2012) suggested that the USA-based recommendation to use student stories to inform guidelines and policies could be transferred to UK healthcare programmes because authentic examples and student stories have been identified as useful learning resources.
Essential functions, or proficiencies, are the skills that students should be able to complete with or without reasonable adjustments. Examples of essential functions include safe and effective practice, clinical reasoning, problem solving, communication and listening skills, team working, prioritisation and able to react in an emergency (Ingram, 1997; Rangel et al., 2001; Opie & Taylor, 2008). The existence of essential function lists and reasonable adjustment guidelines in USA was regarded as good practice to permit potential reasonable adjustments to be explored by academics and admission tutors with students prior to commencing their studies in nursing (Maheady, 1999) and physiotherapy (Ingram, 1997; Rangel et al., 2001). Likewise, students with disabilities were encouraged to use consensus guidelines about the skills required of physiotherapists to self-assess their abilities as part of the application process for UK-based physiotherapy programmes (Opie & Taylor, 2008).

Guidelines from USA suggested it may be ‘reasonable’ for someone else to perform part of an essential function under the direction of the student, if the student’s disability prevented independent completion of essential function (Ingram, 1997). However Opie & Taylor (2008) reported that the quest for UK-consensus generated much debate about the necessary physical abilities required to be a physiotherapist before the standardised list was generated. Again the evidence in the literature illustrated the different views held by research participants which impacts on decisions concerning the type of support available to students with disabilities.

Students also requested clear guidelines regarding expectations at different stages of their education, and information about staff responsibilities in providing support through reasonable adjustments (Kolanko, 2003; Brown et al., 2006; Child & Langford, 2011; Hill, 2015). Open discussion about fitness to practise was recommended (Hargreaves et al., 2014) to inform unambiguous guidelines which would ensure student support was provided in an effective and coordinated manner to maintain professional standards and ensure patient safety (Tee et al., 2010; Tee & Cowen, 2012; Howlin et al., 2014b; Nolan et al., 2014). An improved student experience was anticipated because all students would have equal opportunities to access appropriate learning opportunities and support (Maheady, 1999; Child &
Langford, 2011). While general guidance regarding commonly recommended reasonable adjustments can – and indeed, should – be provided, support should be uniquely tailored to meet individual student’s needs (Ingram, 1997; Maheady, 1999; Brown et al., 2006; White, 2007; Griffiths et al., 2010; Ridley, 2011; Nolan et al., 2014; Hill, 2015).

Hill (2015) recommended that practice experiences should be matched to students’ development needs, including career options but students were not offered a choice of practice setting (Nolan et al., 2014). Healthcare education currently requires students to demonstrate many competencies expected of a registered practitioner despite the fact individuals may never be required to demonstrate all of the competencies in their chosen career (Ingram, 1997; Sowers et al., 2004a; Opie & Taylor, 2008). While an individual with a disability may successfully complete a pre-registration programme with or without reasonable adjustments this does not guarantee employability in all areas of practice (HCPC, 2015; NMC, 2015). Morris & Turnbull (2006) reported student nurses reflected on the impact of their disability during practice, when considering potential areas of employment and consequently the majority of participants (89%) planned to work in slower-paced, less acute areas which they regarded as more suitable for them.

As an alternative to the diverse placement experiences required it has been suggested a conditional professional qualification could be developed in physiotherapy to offer students with disabilities the opportunity to focus their education on particular areas of the profession to which they are most suited to practice (Opie & Taylor, 2008). This would facilitate people with key attributes and an ability to empathise through their own experiences of disability to demonstrate fitness to practise in a specific area of healthcare (Sowers & Smith, 2004a) to meet professional requirements. Potentially this solution could be applied to the variety of healthcare professions but would require amendments to current policies and education standards.
2.5.3 Disclosure

The debate about disclosure was clearly evident within the papers and it was apparent the decision to disclose or not was not taken lightly by students with disabilities. Disclosure is a process that can provide access to support (Howlin et al., 2014b). Confidence to disclose was influenced by self-esteem, context and past and present experiences (Stanley et al., 2007; White, 2007; Evans, 2014a; Howlin et al., 2014b). The need to disclose was also influenced by the visibility of the disability (Brown et al 2006). While it was generally recommended that students should disclose disabilities, there was no obligation to do so (Wray et al., 2013). Non-disclosure or delayed disclosure was allowed due to the right to confidentiality provided by Data Protection Act (1998) so long as there were no health and safety concerns (Morris & Turnbull, 2006; Botham & Nicholson, 2014). Therefore the student’s choice must be accepted even if a consequence was an absence of recommended support which may impact on learning and performance (Botham & Nicholson, 2014).

The process of disclosure was deemed very complex (Morris & Turnbull, 2006; Ashcroft & Lutfiyya, 2013; Evans, 2014a). Disclosure resulted in a variety of consequences including attitudes ranging from positive and supportive to stigmatising and unhelpful (Stanley et al., 2007; White, 2007; Evans, 2014a). Adverse reactions were influenced by attitudes underpinned by the medical model (Stanley et al., 2007; Hill, 2015). The reported lack of understanding by academic and practice staff of the term disability and the support measures available to help students progress also influenced students’ decision not to disclose their disability (Brown et al., 2006). Disclosure was more likely when there was a good relationship established (White, 2007; Sanderson-Mann et al., 2012; Hill, 2015) and staff were approachable and welcoming (Brown et al., 2006; Stanley, 2007; Evans, 2014a). Students were more willing to disclose to staff in academic settings because they felt more supported than in practice (Morris & Turnbull, 2006; Ridley, 2011; Carey, 2012).

Students found disclosure in practice settings particularly challenging because of the need for repeated disclosure to numerous staff in a variety of new and unfamiliar
practice settings which demanded recurrent decisions to disclose or not (Morris & Turnbull, 2006; Stanley et al., 2007; Griffiths et al., 2010; Ridley, 2011; Sanderson-Mann et al., 2012, Howlin et al., 2014b). This may partly explain why students wanted HEI staff to inform practice about their disability and support requirements prior to practice commencing (Griffiths, et al., 2010; Child & Langford, 2011: Botham & Nicholson, 2014; Hill, 2015). Students also wanted longer placements to establish relationships in practice to support disclosure (White, 2007; Hill, 2015).

Decisions to disclose in practice were influenced by students’ awareness of their support requirements and the culture of the placement (Stanley et al., 2007; White, 2007; Hill, 2015). Students’ decisions to disclose or not were influenced by their analysis of any potential benefits against any perceived risks (Griffiths et al., 2010; Child & Langford, 2011; Evans, 2014a). Consequently disclosure was selective and variable (Botham & Nicholson, 2014; Hargreaves et al., 2014; Howlin et al., 2014b). The option not to disclose was taken by some students when they were unsure about how mentors might respond. Students did not want to be perceived as stupid and were wary of stigma and discrimination due to labelling (Maheady, 1999; Brown et al., 2006; Morris & Turnbull, 2006; Stanley et al., 2007; White, 2007; Crouch, 2008; Crouch, 2010; Griffiths et al., 2010; Child & Langford, 2011; Murphy, 2011; Ridley, 2011 Sanderson-Mann et al., 2012; Ashcroft & Lutfiyya, 2013; Evans, 2014a; Hargreaves et al., 2014; Howlin et al., 2014b; Nolan et al., 2014).

Conversely some students disclosed when they perceived support was available and required, while others only disclosed when they believed it was necessary, or to provide some security if they could foresee any problems with their level of performance (Opie & Taylor, 2008; Sanderson-Mann et al., 2012; Howlin et al., 2014b). Disclosure was therefore proactive or reactive (Hargreaves et al., 2014). Accordingly Evans (2014a) classified students as ‘Embracers’ (willingly disclose their dyslexia to proactively seek support), ‘Resisters’ (do not disclose dyslexia or any difficulties) or ‘Passive Engagers’ (do not disclose but highlight difficulties).
To facilitate access to support, clear processes of disclosure were required (Stanley et al., 2007; Ridley, 2011). Ongoing education about the benefits of disclosure (Griffiths et al., 2010; Botham & Nicholson, 2014) and availability of a key contact to identify support measures and enable disclosure were recommended (Morris & Turnbull, 2006; Tee et al., 2010; Howlin et al., 2014b; Hill, 2015). However, a major factor which influenced disclosure was the expectation that the nature of the disability would be disclosed rather than only detailing required support measures (Howlin et al., 2014b). If students do not perceive themselves as disabled, they will not disclose a disability (Kolanko, 2003; Stanley et al., 2007; Murphy, 2011; Evans, 2014a). Even when students acknowledged their disability, they do not want to be labelled or seen through the medical model of disability lens, because this impacted on their identity (Morris & Turnbull, 2006; Murphy, 2011; Ashcroft & Lutfiyya, 2013). Murphy (2011) termed this the badge of disability which provided access to reasonable adjustments (Stanley et al., 2007; Murphy, 2011; Nolan et al., 2014).

Tee et al. (2010) and Howlin et al. (2014b) agreed that a list of suggested recommended adjustments should be available to assist discussions about access to support. In fact, Howlin et al. (2014b) asserted that a discussion focussed on support measures would reduce the need for verbal disclosure of a disability. The option not to disclose a disability would be preferable. Students would rather the focus was identifying support measures to reduce the impact of the disability on learning rather than the disability per se (Ashcroft & Lutfiyya, 2013; Howlin et al., 2014b). This approach was reflective of the social model of disability.

From the mentor’s perspective, disclosure was useful to permit mentors to identify and facilitate reasonable adjustments for the student (Crouch, 2008; Sanderson-Mann et al., 2012; Nolan et al., 2014). Educators’ frustration associated with lack of disclosure by students was evident (Ashcroft & Lutfiyya, 2013) and specific concerns about non-disclosure of health issues, particularly mental health issues, were raised because mentors were not sure how to support students effectively (Nolan et al., 2014). Non-disclosure was regarded as a professional issue by some mentors (Morris & Turnbull, 2006; Botham & Nicholson, 2014). Several papers highlighted perceived
risks in terms of patient safety and fitness to practise when there was a lack of disclosure (Maheady, 1999; Sowers & Smith, 2004a; Morris & Turnbull, 2006; White, 2007; Crouch, 2008; Griffiths et al., 2010; Murphy, 2011; Ridley, 2011; Sanderson-Mann et al., 2012; Ashcroft & Lutfiyya, 2013; Evans, 2014a; Evans, 2014b; Hargreaves et al., 2014; Howlin et al., 2014b; Nolan et al., 2014). This was especially the case if students with dyslexia were not accessing necessary support measures to manage the impact of their disability to promote safe and effective practice. Therefore the research highlighted a heightened level of apprehension due to perceptions of risk associated with students with disabilities. Thus the notion of risk merits exploration as a separate theme.

2.5.4 Influence of the education location
Public Sector duty obligations require education providers to ensure reasonable adjustments were made available in academic and practice settings for students with disabilities (Tee et al., 2010). Recommendations for student support in academic settings including guidance for educators resulted in willingness to facilitate support (Ashcroft & Lutfiyya, 2013; Botham & Nicholson, 2014). Crouch (2010) established that students with and without dyslexia found Personal Academic Tutors very supportive in addressing academic difficulties and improving the overall academic experience. Likewise other studies reported satisfactory support in academic settings (Colon, 1997; Brown et al., 2006; Sanderson-Mann & McCandless, 2006; Murphy, 2011; Carey, 2012).

In contrast lack of recommended adjustments and resultant ambiguity about how to support students in practice caused support to be unavailable or inadequate to meet students’ needs. Mentors were often not aware students had disabilities and were not involved in planning for student support in practice (Crouch, 2008; Nolan et al.; 2014). Nolan et al (2014) reported that over 80% of mentors did not receive information from the HEI about students’ support needs, and where summaries of students’ needs were provided, the focus was academic rather than practice. Other studies also reported details about effective reasonable adjustments were not
communicated to other stakeholders involved in supporting student learning in practice (Brown et al., 2006; Opie & Taylor, 2008; Botham & Nicholson, 2014; Hill, 2015). Consequently support availability was variable and students were often left to manage the difficulties caused by their disability on their own (Sanderson-Mann & McCandless, 2006; Child & Langford, 2011; Murphy, 2011).

As reasonable adjustments were more difficult to establish in practice due to the diversity of areas (Tee et al., 2010; Sanderson-Mann et al., 2012) strategies to minimise the impact of disability on performance were often determined by students (Maheady, 1999; Brown et al., 2006; Morris & Turnbull; 2006; White, 2007; Child & Langford, 2011; Murphy, 2011; Howlin et al., 2014b). While some of the strategies were supportive (e.g. writing lists, repeating instructions to aid memory), others were inappropriate and maladaptive (e.g. avoiding answering the telephone to minimise need to multi-task [listen, recall and make notes]) (Morris & Turnbull, 2006; Crouch, 2008; Murphy, 2011).

As indicated in section 2.5.1, support for students with disabilities was hampered by attitudes towards the actual disability, the type of reasonable adjustments requested and perceptions of fairness (Maheady, 1999; Morris & Turnbull, 2006; Griffiths et al., 2010; Carey, 2012; Hargreaves et al., 2014; Howlin et al., 2014b). Hill (2015) established supportive attitudes were evident when practice staff had previous experience and knowledge of a disability. Likewise, it was identified effective preparation of mentors to support students with disabilities was the first step to managing the difficulties (Tee et al., 2010; Tee & Cowen, 2012) but ongoing education and staff support were required to ensure effective support continued (Colon, 1997; Sowers et al., 2004a; White, 2007; Howlin et al 2014b; Nolan et al., 2014).

Planning and preparing for practice experiences required proactive and anticipatory approaches (Griffiths et al., 2010; Tee et al., 2010; Tee & Cowen, 2012; Botham & Nicholson, 2014; Hill, 2015) because support from mentors was crucial to the student experience (Brown et al., 2006; Morris & Turnbull, 2006; Child & Langford).
Relationships between mentors and students and the type of learning environment were found to be instrumental in supporting students with dyslexia to deal with issues concerning information processing, administering medication and fulfilling the requirements of the nursing role which included prioritisation (White, 2007). However, as mentioned in section 2.5.3 as short placements and several different mentors made relationship building difficult (Ridley, 2011) it was recommended HEI staff should advocate for students going to practice settings to assist them to disclose their support needs to mentors (Child & Langford, 2011).

Close working relationships between HEIs and practice were required to promote understanding and development of strategies to overcome barriers experienced by students with disabilities in practice (Tee et al., 2010; Tee & Cowen, 2012). Some of these challenges stemmed from difficulties experienced in the academic setting e.g. difficulties with grammar and spelling impacted on record-keeping (Morris & Turnbull, 2006; Crouch, 2008; Crouch, 2010). Wray et al (2013) stated the positive evaluations of their embedded study skills sessions included suggestions the learning techniques session (i.e. time management, note taking, reading effectively, organisation and glossaries) should have included application to practice.

The issue of time was raised as a barrier to learning, particularly for students with disabilities that impacted on processing and recall (Kolanko, 2003; Morris & Turnbull, 2006; White, 2007; Tee et al., 2010; Murphy, 2011). Issues with pace in practice were previously reported to exacerbate the challenges experienced by students with dyslexia (White, 2007). Hargreaves et al (2014) suggested time was context related, extra time was identified as a reasonable adjustment and provided for academic work but not in practice settings because completion of particular clinical skills required accuracy within a limited time (Murphy, 2011; Tee et al., 2010; Howlin et al., 2014b).

It was necessary to be cognisant of conflict between HEI expectations and competency-based requirements of nursing (Carey, 2012). For example, a few studies reported on the tiredness experienced by all students undertaking shift work in
practice, regardless of the presence of a disability (Murphy, 2011; Howlin et al., 2014b; Hill, 2015) because tiredness impacted on ability to meet academic and practice demands. Student support required interdependence between HEI, practice and students (Howlin et al., 2014b). Evaluations of the role of Student Practice Learning Advisors (SPLA) indicated that their close liaison with mentors and students permitted reasonable adjustments to be operationalised to meet students’ needs without compromising professional standards (Tee et al., 2010).

The involvement of students in the partnership to identify support needs and plan reasonable adjustments, to share responsibilities and to promote positive learning experiences was essential (Stanley et al., 2007; White, 2007; Griffiths et al., 2010; Tee et al., 2010; Child & Langford, 2011; Ridley, 2011; Botham & Nicholson, 2014; Hill, 2015). Students with disabilities have unique experiences requiring individualised support strategies to overcome barriers specific to the individual’s experiences (Maheady, 1999; Brown et al., 2006; White, 2007; Sanderson-Mann et al., 2012; Howlin et al., 2014b). It cannot be assumed that students experienced their disability in the same way as other students. Involving students in discussion about reasonable adjustments provided personal insight into their strengths and weaknesses as well as detail about potentially effective support measures to inform individualised reasonable adjustment recommendations for academic and practice settings (Stanley et al., 2007; Ridley, 2011; Botham & Nicholson, 2014; Howlin et al., 2014b). This collaboration facilitated communication, monitoring and evaluation of support (Griffiths et al., 2010; Ashcroft & Lutfiyya, 2013). However discussions required the involvement of several stakeholders from academic and practice settings (Tee et al., 2010; Carey, 2012) who needed to be fully committed to meeting legal obligations and professional requirements associated with supporting students with disabilities to be safe and effective practitioners (Ridley, 2011; Botham & Nicholson, 2014).

2.5.5 Risk
Patient safety was a paramount concern of academic and practice staff as well as students. The importance of fitness to practise and public protection, and concerns
about meeting the needs of students with disabilities while ensuring safe practice were raised by many participants in various studies (Maheady, 1999; Child & Langford, 2011; Ridley, 2011; Carey, 2012; Sanderson-Mann et al., 2012; Ashcroft & Lutfiyya, 2013; Evans, 2014b; Nolan et al., 2014). Admission tutors in the study by White (2007) had similar anxieties about reconciling disability legislation with patient safety. However, some papers stated students were very aware of the potential risks to patient safety that could result from the impact of their disabilities and therefore also regarded patient safety as paramount (Morris & Turnbull, 2006; Crouch, 2008; Murphy, 2011; Ridley, 2011; Howlin et al., 2014b; Hill, 2015).

A common misconception in the literature was the view that dyslexia, affects competency and patient safety (Morris & Turnbull, 2006; Crouch, 2008; Child & Langford, 2011; Ridley, 2011; Sanderson-Mann et al., 2012; Evans, 2014b; Hargreaves et al., 2014). This fallacy was also reported about other types of disabilities (Maheady, 1999; Sowers & Smith, 2004a; Ashcroft & Lutfiyya, 2013; Nolan et al., 2014). Evans (2014b) found that the misconception was only associated with students identified by academic staff as ‘severely dyslexic’ because the students were perceived as not competent in practice while students with a ‘mildly dyslexic’ identity were understood to only need minimal if any adjustments to support them to perform safely.

Ashcroft & Lutfiyya (2013) hypothesised there was risk associated with all students, with and without disabilities. Risks were categorised as less serious ‘learning encounters’ or more serious ‘safety encounters’ where there was potential risk to patient safety. The responses to the different encounters were influenced by staff attitudes to disability (Ashcroft & Lutfiyya, 2013). Comparisons between students with and without disabilities, established all students were generally determined, motivated and persevered to complete their programme of study (Maheady, 1999; Crouch, 2008; Ashcroft & Lutfiyya, 2013; Hill, 2015). Murphy (2011) established there were no self-reported differences in performance between students with dyslexia and students without dyslexia, which was akin to other findings despite Murphy’s low response rate (31%) (Sanderson-Mann et al., 2012; Hill, 2015). However Sanderson-
Mann et al., (2012) noted students with disabilities were more likely to worry about making mistakes. This was due to students with disabilities being particularly self-aware of their limitations and vigilant with patient care to minimise risk (Morris & Turnbull, 2006; Crouch, 2008; Murphy, 2011; Ridley, 2011; Howlin et al., 2014b; Hill, 2015).

Almost 90% of Morris and Turnbull’s (2006) students with dyslexia identified potential risks to safe practice related to medicine administration, documentation and busy environments causing distractions. White (2007) also raised distraction on placement as an issue. Strategies to manage the potential risks included more time, double-checking (with others when necessary) and documenting care in a less-distracting environment (Maheady, 1999; Morris & Turnbull, 2006; White, 2007; Crouch, 2008; Murphy, 2011; Ridley, 2011). However to access any support measures requiring facilitation required disclosure. As previously alluded to in section 2.5.3, disclosure was influenced by attitudes, which in turn influenced the nature of available support, and potentially impacted on patient care and potential for risk (Morris & Turnbull, 2006; Evans, 2014a; Evans, 2014b).

When support was requested to overcome the impact of a disability, decisions must be taken whether the support was ‘reasonable’ in the context of patient safety (Morris & Turnbull, 2006; Stanley et al., 2007; Tee et al., 2010; Hargreaves et al., 2014). Hargreaves et al. (2014) recommended an exploration of the difference between perceived risk and actual risk was needed to inform support decisions.

2.6 Discussion
This structured review of the empirical literature aimed to discover what was known about reasonable adjustments to support pre-registration students undertaking healthcare education, with a particular focus on nursing education. Arguably there was a dearth of research surrounding support for healthcare students with disabilities. However the search indicated that there is an increasing amount of
available literature over the last decade which indicated that the topic is current and relevant. Twenty three of the selected papers have been published since 2007. As detailed in section 2.3 studies were not excluded from the review based on quality.

Much of the research was descriptive and exploratory although different research approaches were adopted. The papers included quantitative, qualitative and mixed methods research and used a variety of methods of data collection and data analysis. The studies tended to report from the perspective of students with disabilities (n=10), although six other papers presented findings from the perspective of students with and without disabilities. Ten studies focussed specifically on dyslexia, while one identified SpLD as the focus, a term which included dyslexia. The remainder referred to disability from a broader perspective with the exception of Griffiths et al., (2010) where the disability was identified as Myalgic Encephalopathy.

Students’ perspectives of support were represented in 22 papers, with 11 papers focussed specifically on students. Staff-only participated in seven studies and three papers provided programme-specific findings. Of the 18 studies conducted in the UK, only one specifically focussed on Scotland (Hill, 2015) although one was undertaken in Great Britain (Stanley et al., 2007) and another was UK-based (Murphy, 2011).

Five themes emerged from the 32 papers which met the inclusion criteria. It was very apparent decisions about the types and levels of support offered to healthcare students with disabilities were significantly influenced by the attitudes and knowledge of not only staff but also of students. Beliefs and views about whether people with disabilities were able to successfully complete programmes of study to become safe and effective healthcare practitioners were diverse, as were understanding of the concept of reasonable adjustments. Students and staff highlighted a lack of clear, unambiguous guidance. This dearth of accessible and plain guidelines and policy led to misunderstandings of roles, responsibilities and acceptable support as well as evident local interpretations of policies and professional standards. Variations in support were evident locally, nationally and internationally from the limited literature available, and decisions about support are
underpinned by the attitudes and values of key stakeholders. Consequently experiences of students and of supporting students were variable and decisions lacked transparency.

A major factor that initially underpinned the process to identify support was students’ decisions to disclose and the extent of disclosure. Evidently students were more willing to disclose in academic settings than practice, for numerous reasons. It was particularly well-defined in the literature that the education setting was a key influence on the availability of reasonable adjustments for healthcare students with disabilities. This in part was due to identified tensions between the equality legislation and professional standards as well as difficulties associated with being inclusive while remaining student-centred. A crucial consideration related to patient safety because there were evident concerns about perceived risks associated with students with disabilities and the impact of their disability on care. This was despite evidence that students with disabilities tend to be more cautious and vigilant than their peers.

The literature has evidenced several challenges associated with supporting healthcare students with disabilities. Diverse attitudes, variable levels of knowledge and understanding, and a lack of guidance about disabilities and reasonable adjustments contribute to uncertainty and inconsistency in decisions about supporting students with disabilities. Perceptions of risk associated with students with disabilities can arise following disclosure or as a consequence of non-disclosure, particularly in practice settings where patient safety is paramount. However there was clear evidence of positive and proactive localised support strategies that have been developed and recognition of the need to share good practice. Nonetheless there are evident gaps in the literature ripe for investigation. These will be discussed in section 2.7.
2.7 Gaps in Literature
Despite the body of non-empirical literature about disabilities and the apparent increasing amount of empirical papers about support for healthcare students with disabilities, there is still much to explore about reasonable adjustments in healthcare. The literature included within the review was of variable quality. Overall appropriate methodologies and methods were adopted. Five surveys secured good response rates, which improves the generalisability of the results. However many studies used convenience sampling to access small samples and collected data from the perspective of one group within one location. These limitations impacted on the transferability of the findings. Although suitable data collection tools and approaches to data analysis were used, only a few papers referred to aspects of rigour (Colon, 1997; Rangel, et al., 2001; Sanderson-Mann et al., 2012; Nolan et al., 2014; Shpigelman et al., 2016).

It was evident from the literature reviewed that confusion abounds and legal requirements were not being met. Many of the papers reported local experiences, often from the perspectives of students, but research is required from a broader position. As healthcare education involves many key stakeholders, research should be undertaken to explore the experiences and viewpoints at operational and strategic levels. Students (with and without disabilities), staff (academic and practice-based, including joint-appointments), leaders and managers (including professional bodies) should be invited to contribute, as should service users and carers, particularly as one of the key concerns raised was patient safety. Research of this type would permit experiences and viewpoints to be compared and contrasted using quantitative, qualitative or mixed methods approaches.

More research is also required to explore disclosure from the various viewpoints and to establish whether other existing processes positively impact on the availability of support for students with disabilities. There is also a specific need to evaluate existing support strategies, not just from the perspective of students and staff but also with regards to progression, retention and completion as well as employability and career choices.
Based on the research undertaken in physiotherapy in USA and UK (Ingram, 1997; Rangel et al., 2001; Opie & Taylor, 2008) and nursing in USA (Maheady, 1999) research should also be undertaken to establish guidelines for reasonable adjustments within the different healthcare professions, based on the identified essential functions. With regards to nursing, for example, the research could be linked to reasonable adjustments for the Essential Skills Clusters that student nurses must demonstrate (NMC, 2007). A consensus approach would be one way to undertake the research to seek agreement on suitable support for each of the skills particularly as healthcare education programmes are underpinned by common standards stipulated by the professional bodies (Carey, 2012).

Further research is required about the inclusive curriculum in healthcare education, particularly as the education is usually undertaken in two diverse settings (HEI and practice). Consideration should also be given to evaluating to what extent healthcare education can meet legal obligations and professional requirements, with comparison between the different fields of nursing, and across UK since Northern Ireland has a different Act.

2.8 Summary
The purpose of research is to contribute to knowledge and understanding about a particular topic (Parahoo, 2006). To initiate new knowledge it is important to know what knowledge already exists (O’Leary, 2014). This chapter has provided a structured review of the empirical literature using themes. While the review process was clearly described, the understanding and synthesis of the extracted data was based on my interpretation of the limited detail provided in research articles.

The review identified five themes and has addressed the review question through provision of a fuller understanding of the issues associated with identifying and implementing support for pre-registration healthcare students with disabilities from a local, national and international perspective. However it was very apparent that
there are many gaps in the existing literature, which leaves ample scope to undertake a research study to add to the body of knowledge.

It was important to identify an area of research that was of interest to me to sustain the learning journey while also being manageable for a part-time, self-funding PhD student. To support my development in the role of ADC, I initially considered undertaking a Delphi-study to seek consensus about reasonable adjustments for pre-registration nursing students in Scotland, because there was no identified research in this area. However preliminary discussions with colleagues and peers highlighted diverse perspectives about reasonable adjustments including examples of a range of support measures that was reasonable in one situation but arguably not in another. Therefore it was evident prior to seeking consensus there was a distinct need to go back a step to explore reasonable adjustments and the management of this required support for nursing students with disabilities in Scotland. Thus the focus of my research narrowed from healthcare students to nursing students.

This study aimed to explore the concept of reasonable adjustments within pre-registration nurse education in Scotland using a mixed methods approach to capture the breadth and depth of available data. Chapter 3 will justify the chosen research methodology, design and methods, and confirm the research aim and objectives.
Chapter 3: Methodology and methods

3.1 Introduction

Chapter two identified several gaps in the literature about reasonable adjustments in healthcare education. The purpose of research is to establish new knowledge to close identified gaps in the literature and contribute to existing knowledge through systematically studying an occurrence or experience (Gerrish & Lacey, 2010; Grove, 2017a). A crucial part of the research process is selection of the research methodology, design and methods (Lacey, 2010; Sutherland, 2017a) and in this chapter I will outline the processes involved in choosing the study’s design and methods. Firstly I will restate the research question, aims and objectives, after which I will critically discuss the philosophical foundations of research and examine different research paradigms with reference to the research aims and objectives. I will then put forward my arguments for the choice of design and methods. Finally, I will outline the specific procedures undertaken in conducting this research.

3.2 Research Question

What influences the identification and implementation of reasonable adjustments in pre-registration nursing education in Scotland?

3.2.1 Research aim:

To explore the concept of reasonable adjustments within pre-registration nurse education in Scotland.

3.2.2 Research objectives:

1. Explore the meaning of reasonable adjustment within the context of pre-registration nursing education in Scotland from the perspective of
Academic Advisors (AAs), Academic Disability Coordinators (ADCs), and Practice Education Facilitators (PEFs).

2. Examine the processes involved in identifying reasonable adjustments to support pre-registration student nurses with disabilities.

3. Discern the management processes underpinning the implementation of reasonable adjustments for student nurses with disabilities.

4. Explain from the perspectives of AAs, ADCs and PEFs what factors influence the implementation of reasonable adjustments to support student nurses with disabilities in academic and practice environments.

A vital part of the research process was identifying which research design should be adopted to address the research aims and objectives (Lacey, 2010; Moule & Goodman, 2014). As the purpose of the study was to find out about reasonable adjustments and explore the experiences of key stakeholders within pre-registration nursing education in Scotland, the most appropriate approach was mixed methods. Following a brief overview of research paradigms and approaches, I will defend my choice of methodology.

### 3.3 Research Paradigms

Within research, the way the world and reality are viewed is underpinned by two main paradigms, positivism and interpretivism (Topping, 2010; O’Leary, 2014). Each paradigm is aligned with a different philosophical foundation and has associated methodologies and methods of data collection and analysis (Allsop, 2013, Creswell, 2009; Moule & Goodman, 2014). Thus each paradigm has its own ontology, epistemology and methodology. Ontology is the study of existence and understanding reality and truth (O’Leary, 2014, Holloway & Galvin, 2017). Epistemology is concerned with knowing and how knowledge is generated (Topping, 2010; Gray, 2017a). Finally, methodology provides the theoretical underpinning to explain the methods selected to systematically conduct research to answer a research question (Moule & Goodman, 2014; O’Leary, 2014).
3.3.1 Positivism

The positivist paradigm stems from the mid-19th Century and champions objectivist ontology that knowledge is based on objective, measurable, scientific information that is not influenced by perception (Topping, 2010; O’Leary, 2014). Therefore universal laws to explain and understand social phenomena are pursued. Positivism encapsulates empiricism (knowledge must be observed through human senses), realism (truth independent of perception) and determinism (cause and effect descriptions) (Parahoo, 2006; O’Leary, 2014). Thus logical principles are employed to facilitate objective investigations through observation and measurement of variables to establish any cause and effect relationships (Topping, 2010; Grove, 2017a).

Recognition that there can never be complete researcher objectivity led to the development of post-positivism, which is underpinned by critical realism (Parahoo, 2006; Polit & Beck, 2012). The inherent subjectivity of humans and the influence of individual interpretations and perspectives on reality mean the truth of a situation is only a best guess (Parahoo, 2006). Thus post-positivism deems reality is portrayed through ‘patterns and trends which describe, explain, and predict phenomena’ (Grove, 2017b, p. 26). Post-positivism recognises some phenomena are not observable and may not be understood through universal laws determined through cause and effect. Therefore post-positivists search for probability by identifying relationships between variables to provide theories and understanding of outcomes (Parahoo, 2006; Creswell, 2009).

3.3.2 Interpretivism

Interpretivism is the antithesis of positivism and is underpinned by subjectivist ontology (Parahoo, 2006; Denscombe, 2014). Acknowledging the uniqueness of humans and the complexity of human behaviour, which are both influenced by experience and perception, offers the opportunity to gain insight into how and why people interact as they do (Moule & Goodman, 2014; Gray, 2017a). Therefore within interpretivism there is an appreciation of the importance of context (relativism), interaction and engagement (social constructionism) and personal experience
(subjectivism) (Parahoo, 2006; O’Leary, 2014). Findings are based within the context of the research itself, the perspectives of the participants and the potential influence of the researcher (Parahoo, 2006). Hence the data often may not be generalised but potentially could be transferred to another context so long as a ‘thick description’ of the research process is provided (Moule & Goodman, 2014).

3.4 Approaches to Research

Research can involve deductive and/or inductive approaches to amass information and subsequent knowledge about a specific topic, in a rigorous and systematic manner (Parahoo, 2006). Deductive, or quantitative, approaches test theories whereas inductive, or qualitative, approaches derive conclusions and generate theories (Topping, 2010). However research is often a mixture of the two approaches (Moule & Goodman, 2014) and therefore quantitative and qualitative research should be considered as contributing to a continuum of knowledge (Topping, 2010; O’Leary, 2014).

3.4.1 Quantitative Research

Quantitative research is embedded in positivist/post-positivist principles which regard knowledge as an accumulation of facts mainly acquired through statistical analysis of data transposed into numbers to describe variables, test cause and effect relationships, and correlations (Allsop, 2013; Creswell, 2009; Grove, 2017a). An appropriate form of quantitative research needs to be selected to answer a specific research question. This may involve descriptive research to gather data about a relatively unknown phenomenon or it may consist of correlational, quasi-experimental or experimental research to identify and establish the nature of relationships (Topping, 2010; Grove, 2017a). Where an experimental approach is adopted the research question is usually stated as an hypothesis to assert the probability that a cause and effect relationship is not due to chance (Sutherland, 2017a). Thus experimental quantitative research, through the manipulation of
variables and efforts to control external factors that may influence the outcome, attempts to reduce bias and enhance objectivity (Topping, 2010). This contributes to the overall rigour of the research (Sutherland, 2017a).

3.4.2 Qualitative Research

Qualitative research rejects positivism, is underpinned by interpretivist philosophies (Johnson & Onwuegbuzie, 2004; Topping, 2010) and is associated with accessing subjective information about experiences, perceptions, preferences and social processes from participants’ perspectives and interpretations (Moule & Goodman, 2014; Gray, 2017a). Data tends to be accessed from quotations, taken for example from interviews and/or documents, as well as non-verbal communication including body language. Data is then organised into themes and concepts to permit analysis and potentially to generate theory (Lacey, 2010). Consequently, qualitative research provides more in-depth data to promote improved knowledge and understanding of beliefs, experiences and perceptions (Moule & Goodman, 2014; Gray, 2017a).

Qualitative methodologies permit greater flexibility to modify data collection and analysis methods in response to the research process and emerging findings without affecting the overall rigour of the research (Gray, 2017a). However rigour can be affected by the influence of the researcher’s predetermined knowledge on data collection, analysis and interpretation (Topping, 2010; Moule & Goodman, 2014). Therefore it is essential qualitative researchers are reflexive so that they acknowledge the influence they may have on the research process through their own biases (Gray, 2017a).

Qualitative research covers a number of approaches used to study the meaning people give to different phenomena and the context in which they occur (Parahoo, 2006; Topping, 2010). For example:

- Phenomenology studies descriptions and interpretations of participants’ lived experiences
Ethnography focuses on an in-depth investigation of a culture and the members of that culture (Holloway & Todres, 2010; Todres & Holloway, 2010; O’Leary, 2014).

Other qualitative research methods used where little is known about a topic include:

- Grounded Theory which draws on concurrent data collection and analysis to generate a theory following the interpretation of participants’ experiences of the world
- Exploratory-Descriptive research, a general approach which does not usually specify a particular methodology (Gray, 2017a)

### 3.4.3 Mixed Methods Research

The research approach selected for a research study should be driven by the ‘research question, purpose and context’ (Venkatesh et al, 2013, p.2) and not dictated by tradition (O’Leary, 2014). As a single approach may not adequately answer some research questions, it may be more effective to blend approaches to access a better range of methods to address the research aim (Creswell, 2009; Doyle et al, 2009; Moule & Goodman, 2014; Halcomb & Hickman, 2015). Therefore although two main approaches to research are often demarcated (Sandelowski, 2014), it could be argued there is a third approach, one that combines both paradigms: mixed methods (Denscombe, 2008; Creswell, 2009; Simons & Lathlean, 2010).

Mixed methods designs are classified depending on the purpose, timing of the different quantitative and qualitative elements (concurrent or sequential), and the significance of one element compared to the other (Gray, 2017d). Mixed methods research can be:

- **exploratory** (a new area is explored using qualitative methods before quantitative methods are used to measure what was obtained qualitatively)
- **explanatory** (evidence is acquired using quantitative methods before explanations are sought using qualitative methods)
• **transformative** (qualitative and quantitative methods are used to focus on a social problem through a particular theoretical perspective e.g. social science theory)

• **advocacy/participatory** (mindful of the political agenda and the need to address specific social issues through the use of qualitative and quantitative methods using a particular theoretical lens e.g. feminism)

  (Creswell, 2009; Halcomb & Hickman, 2015; Gray, 2017d)

Mixed methods research derives strengths from both quantitative and qualitative approaches (Johnson & Onwuegbuzie, 2004). The use of methods from across the paradigms permits methodological triangulation to confirm findings (Simons & Lathlean, 2010). Depending on the different aspects of the research question to be answered at a given time, approaches are either **concurrent** or **sequential** (Johnson & Onwuegbuzie, 2004; Creswell, 2009; Gray, 2017d). The flexible approach promotes holistic knowing and understanding to establish *what* is going on and also *why* this is the case (Simon & Lathlean, 2010; O’Leary, 2014). However mixed methods research can escalate the costs and duration of a study and requires researchers to develop skills associated with both qualitative and quantitative methodologies (Denscombe, 2008; Simon & Lathlean, 2010). While the intention with mixed methods research is to access data to corroborate and perhaps enhance the finding from one method with those of another, this may not be the case in reality (Denscombe, 2008; Simon & Lathlean, 2010).

To avoid the potential pitfalls associated with mixed methods research researchers need to realise the limitations of quantitative and qualitative approaches, and be aware of the limits of their own ability to mix qualitative and quantitative approaches (Johnson & Onwuegbuzie, 2004). Just as in qualitative research, reflexivity is similarly promoted in mixed methods research to support researchers’ self-awareness of their influence on the research process and the decisions that are taken (Lathlean, 2010; Gray, 2017a). Throughout the research process it is important to constantly evaluate and re-assess the approach and methods adopted to ensure credibility, trustworthiness and transparency (Northway, 2000; O’Leary, 2014).
The philosophical underpinning of mixed methods research is still evolving (Gray, 2017d) and debate ensues about whether methods can genuinely be mixed when paradigms are opposed (Simon & Lathlean, 2010; Bishop, 2015). Nonetheless mixed methods approaches have provided opportunities for positivists and interpretivists to work together to acquire knowledge from both perspectives, in a flexible and complementary way to improve the quality of research (Sandelowski, 2000a; Denscombe, 2008; Creswell, 2009; Gray, 2017d). The use of a combined approach lessens the weaknesses of either approach which occur when an approach is used in isolation (Dixon-Woods et al, 2004a; Halcomb et al, 2009; Johnson & Onwuegbuzie, 2004; Onwuegbuzie & Leech, 2005).

While it has been suggested that mixed methods research should not be influenced by a specific paradigm, the contrary view supports use of an appropriate paradigm to provide a framework to ensure suitable methods selections (Bishop, 2015; Shannon-Baker, 2016). As the positivism and interpretivism paradigms have already been discussed pragmatism will now be introduced.

Johnson & Onwuegbuzie (2004) view the philosophy of pragmatism as a bridge between opposing philosophies: positivism and interpretivism. Often considered the ‘epistemological middle-ground’ (Yardley & Bishop, 2015, p. 1) pragmatism is often linked with mixed methods research (Denscombe, 2008; Creswell, 2009; Feilzer, 2010; Bishop, 2015; Gray, 2017d). Pragmatism was introduced by Peirce in 1905 (Cherryholmes, 1992) and has been promoted by Dewey who emphasised human experience was cyclical, based on beliefs which influenced actions, and actions which produced beliefs (Morgan, 2014). Experiences are created from habit or inquiry (conscious decision making) and are always context-specific, socially constructed and influenced by emotion (Morgan, 2014).

Pragmatism deems that research questions and the anticipated knowledge generated should be the stimulus for the selected research design rather than fitting the questions asked into a preselected research philosophy (Muncey, 2009; Gray, 2017d). Thus pragmatism is outcome-oriented (Johnson & Onwuegbuzie, 2004; Shannon-
Baker, 2016), promotes the blending of qualitative and quantitative methods to determine different aspects of a phenomenon, and generates a more holistic picture (Doyle et al., 2009; Feilzer, 2009; Venkatesh et al., 2013).

3.5 Choosing the research methodology and design

As the literature review (Chapter 2) shows, little was known about the concept of reasonable adjustment within pre-registration nursing education in Scotland, or anywhere else. The intention of this research was to address this knowledge gap using an appropriate methodology and design to address the research question, aims and objectives (section 3.2).

The study aimed to generate knowledge about processes involved in identifying and implementing reasonable adjustments, by exploring the topic from the perspectives of key stakeholders: Academic Advisors (AA), Academic Disability Coordinators (ADC) and Practice Education Facilitators (PEF). While positivist approaches provided the means to collate measurable, objective facts about reasonable adjustments and its associated processes, this was not the best way to access a detailed understanding of the subjective experiences and perspectives of key stakeholders. Hence, a qualitative exploratory design was deemed to be more suited to accessing in-depth accounts of participants’ perspectives. However a qualitative exploratory design was unsuitable for collating objective and factual data regarding reasonable adjustments in order to identify commonalities in practices and processes across Scotland. Therefore to have used only a positivist or interpretivist approach was deemed to be inappropriate for this study.

The decision to adopt an explanatory mixed methods approach can be defended by the need to blend qualitative and quantitative methods during the research process to access a breadth and depth of data in one study (Dixon-Woods et al., 2004a; Brannen & Halcomb, 2009; Creswell, 2009; Venkatesh et al., 2013; Gray, 2017d). The use of mixed methods provided opportunity to ensure the research aim and
objectives were answered effectively (Halcomb et al, 2009, Feilzer, 2010). From an ontological position, to adequately address the research aim and objectives, it was essential to access the truth and reality about reasonable adjustments. Not only were facts required about reasonable adjustments, their identification and implementation, there was also a need to access stakeholders’ perspectives regarding reasonable adjustments. Epistemologically, the required knowledge can be generated from objectively collating facts as well as gathering subjective detail from people who have had experiences of supporting reasonable adjustments in pre-registration nursing education. Therefore explanatory mixed methods research, underpinned by pragmatism, was deemed the most appropriate methodology to generate new knowledge about the concept of reasonable adjustments within pre-registration nursing education in Scotland.

Explanatory mixed methods research is sequential in that a quantitative phase is followed by a qualitative phase to explain and augment the quantitative findings (Onwuegbuzie & Leech, 2005; Creswell, 2009; Kroll & Neri, 2009; Venkatesh et al, 2013; Gray, 2017d). As information about reasonable adjustments in pre-registration nursing education in Scotland was sparse it was appropriate to begin with collating demographic data and facts about the processes involved in the identification and implementation of reasonable adjustments, and the factors influencing their implementation. Thus it was anticipated data generated from the quantitative phase one would provide objective information to start to address objectives one, two and three. Phase two, the qualitative element, aimed to address objective four as well as augmenting and enhancing the results from phase one by providing in-depth explanations based on an exploration of the perspectives of identified key stakeholders.

3.6 Sampling strategy

Within research it may not be possible or practical to study the total population (Parahoo, 2006; Procter et al, 2010). Therefore a representative proportion, or
sample, of the population can be sought to contribute to data collection (Parahoo, 2006). To determine the research sample, consideration must firstly be given to the research population which is the group, event or object of interest to the researcher (Moule & Goodman, 2014, Grove, 2017c). From the population a comprehensive list or sampling frame can be developed to facilitate the selection of the sample (Procter et al, 2010). On occasion the sampling frame may already exist, for example the electoral roll or, in the case of this study, the list of pre-registration nursing education providers in Scotland who met the inclusion criteria (outlined below) (Parahoo, 2006; Moule & Goodman, 2014).

There are two main types of sampling: probability and non-probability (Parahoo, 2006). Probability sampling ensures that every component of the target population has an equal chance of being selected as a participant, while in non-probability sampling the likelihood of selection is unknown (Moule & Goodman, 2014). Probability sampling is usually employed by quantitative researchers whereas non-probability sampling is usually adopted by qualitative researchers. Within qualitative and quantitative research a variety of sampling strategies are used (Procter et al, 2010). Accordingly, within mixed methods research more than one sampling strategy is usually involved to ensure the most appropriate approach is utilised to access a sample which will meet the needs of the different research methods (Brannen & Halcomb, 2009). As this research study involved two phases underpinned by different methodologies, the sampling strategy had to reflect the respective quantitative and qualitative approaches.

The theoretical, target population to be studied within this research was Higher Education Institutions (HEIs) in Scotland who provided pre-registration nursing education. At the time of data collection, eleven HEIs offered pre-registration nursing degrees, equating to 27 programmes of study. However two providers were excluded from the research. One provider was excluded because the part-time programmes of study offered were aimed at Health Care Assistants and Health Care Support Workers in employment who were being supported by their employer to complete their education to become registered nurses through practice based learning. The other
provider – my current employer – was excluded due to the potential conflict of interest and risk of my influence as researcher on participants’ responses, which could result in bias (Parahoo, 2006; Moule & Goodman, 2014). Consequently nine of the Scottish HEIs providing pre-registration nurse education were included within the ‘total’ study population. Thus the sampling frame already existed although arguably was not required because all but the two excluded HEIs were invited to participate in phase one.

It was anticipated the nine HEIs would be accessible and would participate in the survey to provide objective data about reasonable adjustments in pre-registration nursing education in Scotland. In keeping with my own experience, I expected the data would be provided from each HEI by an individual in the role of ADC (or its equivalent) who had access to the data requested. Of the seven HEIs who provided data, the information was accessed via eight respondents⁹, seven of whom were ADCs and one was a University Disability Advisor (DA). However as will be outlined in section 3.9 the quality of available data was variable.

Although only nine HEIs were invited to participate in the research, as HEI webpages had content available to the public, the decision was taken to search all 10 websites of the HEIs offering full-time pre-registration nursing education to access relevant documents about supporting students with disabilities. The provider of the part-time distance and open-learning programme was excluded.

Phase two was the qualitative component drawing on data from the first phase of this sequential mixed methods approach. Although sample size is not usually predetermined in qualitative research due to the focus being the quality and richness of the data (Polit & Beck, 2012; Patton, 2015), a target sample of 30 participants was predicted to provide sufficient information to address the research aim and objectives in the available timeframe (Procter et al, 2010; Moule & Goodman, 2014;}

⁹ The term respondents is used for phase one because the respondent was the HEI representative
Patton, 2015). It was hoped this sample would include phase one participants to enhance and permit comparison between the data collected (Polit & Beck, 2012). It was important to select a sampling strategy which permitted access to a range of participants that could provide perspectives to represent the diversity and variation in the study population (Procter et al. 2010). In recognition of the geographical diversity of pre-registration nursing education in Scotland; the variation in cohort sizes; the availability of programmes offering registration in the different fields of nursing practice; and the location of HEIs and practice partners (urban, rural, mainland or island); non-probability maximum variation purposeful sampling was utilised to promote heterogeneity in the range of accessed participants (Creswell, 2009; Patton, 2015; Grove, 2017c). However, mindful of the logistics of accessing such a potentially diverse sample (Ayers, 2007; Brannen & Halcomb; 2009; O’Leary, 2014) and because I wanted to ensure that there was representation from the identified stakeholder roles, convenience sampling was also adopted to ensure access to AA, ADC and PEF participants from within the three NHS Education for Scotland (NES) Practice Education Regions (see Appendix 1, p. 298). This was in keeping with the philosophy of pragmatism and managing some of the technical challenges of mixed methods research (Bishop, 2015).

The sampling strategy was also reviewed when one site would not permit me to initiate contact with potential participants. To address this, a recruitment poster (Appendix 5, p. 333) was created for circulation by the gatekeeper to facilitate snowball and volunteer sampling. Potential participants could then volunteer (Moule &Goodman, 2014). To deal with very low response rates to phase two recruitment, participants were asked to share details of the research to networks of potential participants who were academic staff (AAs and ADCs) and PEFs. The amendment to sampling was in line with a pragmatic approach and was incorporated to advertise the study to relevant experts (O’Leary, 2014; Grove, 2017c) to increase the sample size (Polit & Beck, 2012).
3.7 Access

Potential participants were either employed by HEIs or worked between the HEIs and practice partners (i.e. PEFs). Therefore at the planning stage of the research HEI-based gatekeepers were initially approached to establish in principle whether there was an appetite to participate in the research and subsequently if support to access potential participants would be proffered (Gelling, 2010). Academic Heads drawn from the nine HEIs included in the study population were contacted via email to proffer information about the research and to seek confirmation about access opportunities. Overall within the responses received, the focus of the research generated much enthusiasm and apparent willingness to participate. All nine HEIs provided guidance about formalising access arrangements for the research. Each Head of School/Programme Lead provided details of potential gatekeepers to coordinate access to the participants.

Emails of introduction were sent to the identified gatekeepers, with follow up-emails sent two weeks later where responses had not been secured. Eight of the nine HEIs approached provided permission to access participants once ethical approval had been ascertained. Six HEIs accepted the University of Manchester (UoM) ethics application and subsequent approval (see Appendix 4, p. 332) as the basis for their own approval. Three HEIs required an individual ethics application to their local Research Ethics Committee to secure access. Ethical approval was granted by eight HEIs. Unfortunately one HEI denied access to potential participants after the ethics application had been submitted because reportedly the HEI was unable to support external PhD studies.

3.8 Recruitment

Recruitment for the two phases of the study differed due to the nature of the data required and the type of sampling strategies adopted. Once formal ethical approval and access to staff had been determined, as the research was conducted sequentially, an introductory letter (Appendix 6, p. 334) and participant information
sheet (PIS) (Appendix 7, p. 335) were emailed to prospective phase one respondents, where permitted by the research site.

3.8.1 Phase one

When initial interest in participation was verified, a copy of the survey (Appendix 8, p. 339) was sent to phase one respondents. I had expected that the data required for phase one of the research would be held or accessed by an individual in an identified role (e.g. ADC) or department representative. However this was not always the case. Indeed the management and organisation of support for students with disabilities within the different HEIs was diverse. While some HEIs had a specific member of staff responsible for the cohort (i.e. ADC), other HEIs had a different member of staff supporting students from different fields of practice, or different programmes, or on different campuses. This required some flexibility in approach to the identification and recruitment of respondents, which was facilitated by the selected pragmatic approach.

A maximum of three attempts were made to engage respondents for phase one. Across the eight HEIs 18 individuals were approached with mixed success. This included the HEI which requested the recruitment poster to identify volunteers. In some cases, through discussion/email with the ADC, another potential respondent deemed to be in a better position to provide data was identified. In one HEI the respondent was a University Disability Advisor and in another HEI it was a member of staff who had previously undertaken the role of ADC. One individual agreed to participate in phase one of the research but then withdrew consent because they did not have access to the data requested in the survey. Two other individuals initially agreed to participate but then declined to provide data for reasons related to role disagreements. A total of eight respondents from seven HEIs completed a telephone survey as part of phase one.
3.8.2 Phase two

Phase two recruitment provided more challenges. While phase one respondents had indicated willingness to participate in phase two, in the time between phases one respondent had retired and therefore the gatekeeper had to be re-approached to access potential participants. Having reflected on the difficulties experienced securing respondents for phase one, the previous request for a recruitment poster, and in keeping with the sampling strategies that had been adopted, an updated recruitment poster was issued to the identified gatekeepers to facilitate snowball and volunteer sampling.

All potential phase two participants were provided with a PIS (Appendix 9, p. 349). Four participants agreed to participate in phase two of the research after direct discussion with me. Three had been respondents in phase one but subsequently one respondent was unable to participate in phase two data collection for a variety of reasons including work and personal commitments. Snowball sampling was also used in phase two. In total 13 participants were recruited through their networks (Grove, 2017c). In response to the recruitment poster, seven people contacted me for more information about the research illustrating that the posters had some success in supporting volunteer sampling. Five from seven of those who contacted me agreed to participate: one deselected themselves from participating because they were not involved in pre-registration nursing education and the other deselected because they did not believe they could contribute to the study having only recently taken up a role supporting students with disabilities. As responses to the poster were relatively limited, gatekeepers were re-approached to request distribution of an updated version of the poster. While some gatekeepers were willing to distribute the poster on more than one occasion, others were less willing. A total of 21 participants engaged with phase two of the research by the deadline for data collection. Four of these were involved in individual interviews with the remainder participating in focus groups. Written consent was obtained from each participant (Appendix 10, p. 353).
3.9 Data collection methods

The selected data collection tools required to access the necessary combination of qualitative and quantitative data to address the research aim and objectives (Creswell, 2009; Doyle et al, 2009; Moule & Goodman, 2014; Halcomb & Hickman, 2015). Therefore the sequential mixed methods two phase design provided the flexibility to adapt the qualitative second phase of data collection to the findings of the quantitative first phase. Detail about the data collection for the study will be provided after the discussion of the different data collection approaches.

3.9.1 Phase one - Survey

As the first phase of the research expected to acquire demographic data about pre-registration nursing students with disabilities within Scottish HEIs and the process involved in offering reasonable adjustments to meet students’ support needs a descriptive survey was used. Descriptive surveys are appropriate data collection tools to gather self-reported data to describe the current situation or population (McKenna et al, 2010; Moule & Goodman, 2014). Hence this approach was adopted to gather preliminary data relevant to objectives, two, three and four (section 3.2.2).

As there were no relevant validated surveys identified prior to data collection, I needed to develop a questionnaire. Only one study from the literature review reported using a validated questionnaire (Shpigelman, et al., 2016). The other 10 papers included in the literature review also developed their own survey (Colon, 1997; Nolan et al., 2014; Rangel et al., 2001; Sowers & Smith, 2004a; Sowers & Smith, 2004b; Murphy, 2011; Sanderson-Mann et al., 2012; Wray et al., 2013; Hargreaves et al., 2014; Nolan et al., 2014; Hill, 2015). The content of the survey was based on my experience as an AA and ADC supporting students with disabilities, underpinned by the literature reported in chapter 2, chapters in textbooks (Jones and Rattray, 2010; Grove, 2017d), as well as discussion with my research supervisors and ADC colleagues. Closed and open questions were included to structure the survey to force choices and provide opportunity to comment with detail to add depth.
As well as the aforementioned discussions the content validity of the survey was assessed via a pilot study (Lacey, 2010; Moule & Goodman, 2014). Three colleagues with experience of supporting students with disabilities were approached to participate in the pilot because they were part of the target population but were excluded from the main study because they worked in the same HEI as me. To assess the content and face validity of the survey, pilot study participants were asked to review the questions for appropriateness, clarity and readability and to ensure the content represented relevant concepts for measurement to inform the study (Jones and Rattray, 2010; Grove, 2017d). In response to feedback some amendments to language and structure were made to improve clarity and readability to promote accurate understanding of what was being asked (Parahoo, 2006, Grove, 2017d). For example the original question to establish processes involved in identifying student’s support needs was split into two questions (what is involved and who is involved). Questions seeking responses regarding academic and practice settings were also split into two to ensure responses addressed both settings, and questions providing specific response options were reviewed with cognisance that terminology across HEIs and nursing programmes may be different e.g. as outlined in section 1.3, the student support role provided by academic lecturers may be captured by the terms Academic Advisor, Link Lecturer, Liaison Lecturer or Personal Tutor.

While the original intention for phase one data collection was self-completion of the survey, feedback from the pilot study and reflection on comments from the initial participants led to a decision to facilitate a telephone survey. For example, the limitation of self-reporting was highlighted as was the risk of incomplete or absent answers, and the inability to clarify points made (Blessing, 2013; Moule & Goodman, 2014). The opportunity to amend the data collection method was facilitated by the flexibility afforded by a pragmatic approach (Johnson & Onwuegbuzie, 2004; Gray, 2017d). Using a telephone survey improved the likelihood of better response rates due to direct contact with respondents at a pre-determined time. It also offered the possibility to clarify differences in terminology and responses given. Telephone surveys were completed from November 2014 - July 2015 with six of the eight HEIs who provided ethical approval and permission to access participants.
To provide opportunity for respondents to gather the requested data in advance of a scheduled telephone conversation, the survey was distributed to respondents via an individual email. The goal of this approach was two-fold: to minimise the risk of low response rates due to data not being accessible at the time of the survey, and to reduce the risk of respondents misinterpreting or not completing questions (Parahoo, 2006; Moule & Goodman, 2014). To structure the data collection episode, the format of the survey was used to focus and organise the telephone conversation. During the call I noted the survey responses on the document. Where necessary during the conversation, clarification was sought about responses given. On completion of the telephone survey the data obtained was transcribed and returned to the respondent to check for accuracy and content consistency. This also contributed to the rigour of the process (Sutherland, 2017b).

3.9.2 Phase one - Documentary Analysis

Legislation, policies and other relevant documents can also be valuable data sources particularly in social research when their application to practice is being considered (May, 2011; Prior, 2011). In particular, documents can augment understanding and support data triangulation in mixed methods research (Miller & Alvarado, 2005; Simons & Lathlean, 2010). Thus the intention was that documentary data would be used to corroborate the data obtained from the survey.

Documents provide pre-existing data which cannot be influenced by the researcher however, I needed to be cognisant of the potential for bias during the analysis phase particularly when such data is not specifically generated for the research being undertaken (O’Leary, 2014). Thus, appropriate data sources must be selected with regards to the aims of the research (Miller & Alvarado, 2005). Otherwise credibility could be affected.

As well as current legislation and professional regulation and guidance associated with supporting students with disabilities through reasonable adjustments, HEI guidelines and policies were requested, where available, from phase one
respondents. However the latter proved more challenging than anticipated. While all seven HEIs reportedly had guidelines to support decisions about support for the academic setting, only four had similar guidelines for practice. Access to specific records about student support was not available despite me clarifying that templates of student support records would suffice. Various reasons were given for this including Data Protection Act (1998). Two respondents provided links to HEI webpages with information about supporting students with disabilities and three advised the guidelines were available on their HEIs’ webpages. One respondent provided a copy of their Fitness for Practice Policy. As outlined in section 3.6, the websites of all 10 HEIs providing full time pre-registration nursing education were searched to access relevant documents about supporting students with disabilities.

3.9.3 Phase two - Focus Group/Interviews

The initial intention for data collection in phase two was to use focus groups to promote practical access to the required stakeholders located within diverse geographical settings (Ayers, 2007). This was the preferred data collection method to permit participants to interact to express and clarify opinions and views about reasonable adjustments in pre-registration nursing education (Parahoo, 2006; Traynor, 2015; Gray, 2017a). As the focus group facilitator, my role was to promote interaction, provide some direction for the discussion and aim to keep the discussion on topic (O’Leary, 2014).

There are diverse recommendations in the literature regarding the size of a focus group, ranging from four to twelve participants (Doody et al, 2013a; O’Leary, 2014). It was intended three focus group sessions would include approximately 10 participants and be undertaken in a convenient location for participants within each practice education region. This would have secured the targeted 30 participants. However as a contingency for any potential participants unable or unwilling to participate in a scheduled focus group an individual face to face, telephone or Skype interview was offered as an alternative data collection method, rather than losing data that could be contributed to the study.
A small focus group was facilitated to test the preliminary topic guide and timing of the process. This involved two colleagues from an HEI excluded from the research. Two digital audio recorders were used to record the session which took approximately 30 minutes to complete. Feedback from participants and review of the focus group recording highlighted I had not given respondents sufficient time to formulate their answers, something I had to address before the actual data collection. The participants did not offer any specific feedback about the topic guide. However the topic guide (Appendix 11, p. 354) was not finalised until the survey data collection was completed and initial analysis had commenced (Feilzer, 2010).

The use of the topic guide ensured that broad areas were consistently being addressed with all participants and areas requiring more exploration were probed during phase two. The flexibility to explore participant’s perspectives especially about points that I had not previously considered was of benefit too (Tod, 2010). The combination of focus groups and individual interviews complemented results from the phase one survey by adding depth and richness (Feilzer, 2010; Doody et al, 2013b; Green & Thorogood, 2014). For example initial data was gathered in phase one about the types of reasonable adjustments available in academic and practice settings and whether any requests for support were unreasonable. In phase two participants were asked about their experiences of reasonable adjustments and whether they perceived any adjustments as reasonable or unreasonable.

Phase two data collection was completed from December 2015 to June 2016 and involved 21 participants across five focus groups and four individual interviews. Difficulties accessing participants and then time constraints within the study influenced the timeframe, which was extended from the initial plan of four months. Trying to facilitate focus groups to meet the requirements of a group of participants and me was more challenging that I had anticipated. Hence, I decided to facilitate smaller focus groups than originally intended and initiate the contingency plan to offer individual interviews to capture available data. Also in response to being unable to travel due to inclement weather, participants agreed to use Skype for one focus group. Two telephone interviews and two face to face interviews were completed for
four participants unable to attend focus groups. This flexibility of pragmatism permitted the amended approach (Onwuegbuzie & Leech, 2005; Brannen & Halcomb, 2009; Green & Thorogood, 2014).

The 21 participants’ provided representation from all three practice education regions in Scotland. The participants had links with eight of the ten HEI providers of pre-registration nursing education and 12 NHS Scotland Health boards offering pre-registration nursing placements. Specific identifiers for example, the participants’ associated HEI and field of practice have not been included in the thesis to minimise the risk of anonymity being compromised to those familiar with pre-registration nursing education in Scotland (Braun & Clarke, 2013). Table 3.1 provides detail of the sequential data collection process including detail of the participants’ roles.

**Table 3.1 Data collection matrix**

<table>
<thead>
<tr>
<th>Phase one Quantitative</th>
<th>Phase two Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Method</strong></td>
<td><strong>Respondents / Source</strong></td>
</tr>
<tr>
<td>Survey</td>
<td>7 HEIs: 8 respondents (7 ADCs, 1 Disability Advisor)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Documentary Analysis</td>
<td>10 HEIs' Webpages; Guidance from professional bodies e.g. HCPC, NMC, RCN</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To facilitate a focus group or individual interview requires rapport and an ability to minimise potential power-imbalances (Elmir *et al*., 2011). Therefore, time was taken to speak with participants about everyday topics while they prepared for the data collection to begin, and efforts were made to ensure that quieter members of groups were invited to participate in the discussion. Participants consented to the focus groups and individual interviews being digitally audio-recorded to contribute to an audit trail and allow transcripts of discussion points to be generated (Holloway &
Galvin, 2017). The participants were notified when the recordings were started so the focus of the conversation turned to the research topic. Two devices were used to minimise the risk of losing data due to equipment failure.

Field-notes were also made during and after the focus groups and individual interviews to capture the essence of the interaction to enhance reliability (Green & Thorogood, 2014). While it is recommended that an observer can be of benefit during focus groups to record non-verbal behaviour (Goodman & Evans, 2010), as a lone, self-funding, part-time researcher with a full-time work commitment, it was not possible to facilitate this during the focus groups. However taking the opportunity to make brief notes during the focus groups/interviews and as soon as possible after, promoted reflexivity and encouraged immediate thoughts and reactions to the data collection to be recorded (Gray, 2017c).

3.10 Data analysis

Data analysis is the most crucial part of the research process (Lacey, 2010). Suitable methods are needed to manage the data and to identify evidence to address the research aim and objectives. As this was a mixed methods study, quantitative and qualitative data analysis methods have been used to report the findings from the research in a complementary and confirmatory way (Kroll & Neri, 2009). Initial analysis of phase one data was started prior to commencing phase two so the results from phase one could inform phase two data collection.

3.10.1 Phase one - Survey

Qualitative and quantitative data was obtained from the survey. The data obtained was documented on the survey sheet during the telephone interview before being transcribed and transposed onto an excel spreadsheet. The quantitative data was mainly discrete and nominal (Walters & Freeman, 2010). Count data, also known as discrete data, was recorded as whole numbers e.g. the numbers of students with
disabilities. Nominal data was coded using numbers to ‘label’ the data although these numbers do not represent natural ordering of the data e.g. code ‘1’ was selected data, code ‘2’ was not-selected and ‘99’ was included to record missing data (Walters & Freeman, 2010). An excel spreadsheet was used to facilitate coding and to facilitate the use of descriptive statistics to present the findings within tables, charts and graphs (Walters & Freeman, 2010; Cipher, 2017).

The qualitative data generated during the telephone surveys was initially recorded on the excel sheet as free text. Descriptive analysis was used to describe and compare the free-text responses provided. Data was quantified where appropriate to facilitate reporting (Sandelowski, 2000). For example the process of disclosure within each responding HEI was described and comparisons made between respondents.

### 3.10.2 Phase one – Documentary analysis

HEIs’ websites were sourced to analyse what guidance was available about reasonable adjustments and supporting students with disabilities. I explored the documents in a systematic manner, using pre-determined categories to record occurrences of terms (e.g. consent, reasonable adjustment) and note what information was made available to students with disabilities, and staff, about support and reasonable adjustments (Miller & Alvarado, 2005; O’Leary, 2014). For example analysis included evaluation of the credibility of the data source; the type of information provided; whether processes for accessing support were outlined; reasonable adjustment was mentioned and/or defined; consent explained; and examples of support for academic and practice settings provided. Findings were recorded on an excel sheet before being summarised in a table (Appendix 12, p. 355).

### 3.10.3 Phase two – Focus group and interview analysis

Phase two of the research gathered qualitative data. Analysis of the qualitative data involved interpretation to find meaning and understanding in the data (Gray, 2017a). The analytical process can be unpredictable, non-standardized (Lathlean, 2010) and
tends to occur concurrently with the data collection (Creswell, 2009). As well as being able to use the direction of the discussion in the focus groups and interviews to facilitate further probing about a specific discussion point to gain more information, there was also opportunity to reflect on the experience to inform the topic guide for future focus group interviews and the subsequent analysis. This meant that while the focus groups and interviews were being undertaken, completed content was reflected upon, interpreted and initial analysis commenced. However this stage of the research process was also fraught with challenges.

As is standard procedure in qualitative research, each focus group and individual interview was to be transcribed verbatim. Having an awareness that transcription facilitates immersion in the data I intended to complete the transcriptions myself to expedite the analysis (Lathlean, 2010; Gray, 2017a). However having undertaken the first focus group transcription I found the process extremely time consuming and stressful, because I did not have the necessary skill-set (audio transcription and touch-typing). Although the experience was in keeping with the “horrifying yet eye-opening” description offered by Braun & Clarke (2013, p. 162), given unlimited time I would have preferred to complete the transcriptions myself because it genuinely supported my engagement with the data. However, on reflection I realised a more effective use of my time and resources was to employ a transcriber to let me continue with other aspects of the research process. Ethical approval was sought to access a transcribing service for the remaining focus groups and interviews as this had not been accounted for in the original ethics application.

Unfortunately the initial transcription arrangements were compounded by difficulty due to the transcriber becoming ill. This led to a substantial delay in the transcription process because early indications were that the contract for transcription could be met. This did not prove to be the case and consequently an alternative transcription service had to be employed. The transcriptions prepared by the transcriber were reviewed by me to ensure accuracy of content prior to returning the transcriptions to the participants for checking. Again difficulties were encountered in this process because institutional firewalls prevented emails containing the encrypted and
password protected transcriptions and zip-files entering the email service. Hardcopies of the transcriptions, with a covering letter specifying the need to maintain confidentiality were posted securely to five respondents, with their agreement. Eight of 21 participants (38%) responded to the request to check the transcription. The transcriptions were then anonymised through the use of generic descriptors in square brackets, e.g. [P. (Number)] (Braun & Clarke, 2013).

Researchers can opt to complete manual or computer-assisted analysis of qualitative data, for example NVivo or NUD*IST. Computer software can assist management of large data sets so that conceptual mapping and theory building can be facilitated (Parahoo, 2006; Lathlean, 2010). Regardless of the approach adopted, it was necessary to repeatedly listen to the digital recordings while reading the transcriptions (Gray, 2017c) to become immersed in the data (Lathlean, 2010; Polit & Beck, 2012). Therefore as a novice researcher with no experience of qualitative data analysis software, and considering the limited time available, I decided manual data analysis would be more beneficial. This allowed me to focus my time on becoming immersed in the data rather than also having to learn about new software.

Thematic analysis was adopted to facilitate an in-depth, systematic and thorough approach (Onwuegbuzie & Leech, 2005). It is a flexible and widely utilised approach to analysing qualitative data which enables the identification, analysis and reporting of common themes within the data collected (Braun & Clarke, 2006) to ensure an accurate display of the key points offered by participants (Green & Thorogood, 2014). Generation of the themes was both inductive from the data and a priori due to my experience and understanding of the study topic (Ryan & Bernard, 2003). The analysis was arguably experiential thematic analysis because participants’ experiences and perspectives were the focus (Braun & Clarke, 2013).

Braun & Clarke’s (2013) six phases of thematic analysis were used as a framework, and the flexibility associated with a pragmatic approach permitted me to be responsive to emerging patterns in the data in an attempt to ensure accurate interpretation of what the participants had said.
Step 1: Familiarising oneself with the data - immersion in the data through repeatedly listening to and reading the transcripts while thinking about the data promoted familiarity with the content to assist with my analysis (Gray, 2017c). Notes were initially made in the margin of transcripts and extracts were selected using highlighter pens to emphasise points of interest and relevance to the research. This phase required active and analytical engagement with the data (Braun & Clarke, 2013).

Step 2: Generating initial codes – codes were developed from the highlighted extracts and margin notes to reduce the amount of data obtained before themes were identified (Gray, 2017c). Coding during this phase can be either selective or complete. As this research was the first to explore reasonable adjustments from the perspective of identified key stakeholders in Scotland, complete coding was undertaken ‘to identify anything and everything of interest or relevance to answering the research question’ (Braun & Clarke, 2013). Repetition, metaphors, similarities and differences were used to help identify labels for each potential code (Ryan & Bernard, 2003).

Step 3: Searching for themes - Verbatim quotes linked to codes were transferred to colour-specific post-it notes to permit collation of codes to support theme identification on flipchart paper (Appendix 13, p. 356). This process equated to the cutting and sorting of data (Ryan & Bernard, 2003), which enabled me to create my themes by making conscious choices, after recognising similarities and linking patterns between and within the codes (Braun & Clarke, 2013; Gray, 2017d).

Step 4: Reviewing themes – this stage offered me the opportunity to check the identified themes for accuracy, relevance and representation of the codes identified. However, I was very aware of the potential for the a priori approach to theme identification to sway my analysis. Thus to ensure participant’s perspectives were appropriately represented and themes developed inductively to be true to the data (Gray, 2017d), the transcripts were revisited to clarify the context of
points made when themes were reviewed. This resulted in some data extracts being moved before the final themes were confirmed.

**Step 5: Defining and naming themes** – this phase was essential as it ensured the uniqueness of the theme was transparent. It was important to ensure that the themes’ names provided an indication of what the theme was about and that this was more explicitly illustrated in the definition. Discussion with my supervisors helped facilitate this process.

**Step 6: Producing the report** – it was essential during this phase that relevant and effective extracts from the data were selected to support my analysis and theme identification. The themes and extracts also required to directly relate back to the research purpose. Verbatim quotes were selected to support the content of Chapter 5 (findings from phase two) and Chapter 6 (discussion and synthesis of the research findings).

### 3.11 Ethics

Permission to undertake the study was sought and granted by the University of Manchester (UoM) ethics committee (Appendix 4, p. 332). Although PEFs are mainly based in practice settings, following a change to the regulations in September 2011, there was no requirement to seek NHS ethical approval from the National Research Ethics Service to access NHS Staff (NRES, 2011) as part of this research study. As outlined in section 3.7, based on their local requirements ethical approval was sought from each of the included HEIs. Correspondence with individual HEIs has not be included in this thesis to minimise the risk of identification and a breach in confidentiality.

Ethical principles have been maintained throughout this study. To ensure informed consent was gained from participants information sheets were provided with letters of invitation prior to arranging data collection. Replies via email consenting to being
contacted to arrange a mutually convenient time for the telephone survey, and verbal consent at the start of the telephone survey were taken as confirmation of respondents’ willingness to participate. For phase two as well as email replies, signed consent forms (Appendix 10, p. 353) were collected to confirm participation in the focus groups/individual interviews.

There was very little perceived risk of harm to participants. Focus group participants were reminded of the importance of confidentiality and to respect other people’s opinions. Plans were in place to stop data collection if a participant became upset about the discussion content, and the option to withdraw was always available. Debriefing would have been facilitated if necessary, however this was not required as no-one became upset or distressed by the content of the discussions.

As outlined earlier, unique identifiers have been allocated to both HEIs and participants so there is minimal risk of identification particularly through verbatim quotes. However my ability to maintain anonymity and confidentiality was reduced due to the use of snowball sampling and focus groups. Group participants were reminded of the importance of maintaining confidentiality and their professional responsibility to respect others’ opinions. Reinforcement of the latter helped maintain research integrity (Braun & Clarke, 2013). While every effort has been made to maintain the confidentiality of the HEIs, it is acknowledged that there is a small risk that an HEI may be identified from the demographic data provided during Phase one.

3.11.1 Data management

Personal data was managed and stored in keeping with the Data Protection Act (1998) and UoM guidelines. Individual emails were sent to potential and actual participants via professional email addresses. All phase two participants consented to their focus group or individual interview being digitally recorded and this was re-confirmed at the start of the data collection. A confidentiality agreement was put in place with the transcriber and all digital recordings were securely deleted once
transcriptions had been checked. Completed telephone surveys, field notes, transcriptions and data analysis materials were and still are stored in a locked cupboard within a locked office. Digital recordings, transcripts and any other materials that are held in digital format are stored on password protected computers linked to the University of Manchester’s encrypted servers (Green & Thorogood, 2014). In keeping with UoM’s research governance guidelines the data will be stored for five years following completion of the PhD.

3.12 Reflexivity - Data Collection and Analysis in Action

In conducting research, particularly qualitative research, it is important to consider the notion of reflexivity. Reflexivity is the means by which researchers reflect on how their beliefs, preconceptions and values may influence the research process and in particular the interpretations of the data that underpin the findings and conclusions (Creswell, 2009, Topping, 2010; Braun & Clarke, 2013; O’Leary, 2014). Reflexivity was particularly important to ensure my influence as the researcher was made explicit (Jootun et al, 2009) through truthful reporting of the research journey including decisions made and learning that occurred (Northway, 2000). As an AA, ADC, and having previously held a PEF role, there was considerable potential for me to bias the research. Therefore a reflective diary was maintained to permit examination of my beliefs, thoughts and decision making processes throughout the research to maintain an audit trail. Field notes made during and after the focus groups and interviews focusing particularly on the rapport of the focus groups and how I felt the data collection had gone (Topping, 2010). Regular discussions with my supervisors were also undertaken to further promote reflexivity and to review my research journey. The following subsections will examine my reflexivity in relation to specific aspects of the research process.
3.12.1 Pilot Study

The pilot studies discussed in section 3.9.1 provided an opportunity to trial data collection using the tools that had been developed. As the survey was created for the purposes of this research, the initial content was influenced by beliefs and knowledge of supporting students with disabilities. However feedback from colleagues provided an opportunity to improve the content, face validity and reliability of the survey. Awareness of the diversity of terms that may be used helped prepare me for the data collection, and permitted me to note examples of paraphrasing to use where necessary.

Reviewing the recording from the pilot focus group and reflecting on the experience, it became clear that it was like undertaking a structured interview. There was little evidence of discussion between the participants and I, it was more a question and answer session. Clearly I had felt uncomfortable in the midst of silence and felt the need to interject, or re-phrase questions which not only resulted in my speaking over respondents but it meant that they had very limited time to contribute. This was potentially off-putting and could have influenced the participants’ willingness to respond. I needed to learn to be more facilitative. I was aware that I would need to reassure participants to help them settle to be comfortable to contribute to the discussion. Therefore I planned to initially break the ice by encouraging some chat about everyday things e.g. weather, finding out how the participants were. It was also my intention to commence each recording of focus groups and interviews with introductions to ensure identification of the participants, establish roles and confirm involvement with students with disabilities. This was prior to providing a direct question about their understanding of reasonable adjustments to initiate and therein facilitate and nurture discussion between participants.

3.12.2 Recruitment

Being aware of my potential to influence the research and wishing to separate my role as a PhD student from my ADC role, I initially intended to use my student contact details for all correspondence. Although my research was not phenomenology, this
decision was made to help me ‘bracket’ my preconceptions from my own experiences so that I could have an open mind (Moule & Goodman, 2014). During recruitment for the study I only knew of one gatekeeper at one HEI and therefore keeping my roles separate was reasonably straightforward and did not influence potential participants’ decisions to become involved. However work colleagues suggested that I use my work details so that potential participants were aware my role was a primary motivator for the research. Furthermore my identity was exposed due to participants involved in snowball sampling informing potential participants I was the researcher. This was my first encounter of the insider-outsider dilemma as part of the research process. Being an insider, with a shared role identity and some shared experiences reportedly rendered participants more open and willing to share their experiences and perspectives with me as the researcher (Dwyer & Buckle, 2009). Therefore to promote the research and to increase the potential for participants to take part in the study I included my work email address on phase two recruitment posters.

3.12.3 Data collection

Data collection throughout the study was fraught with challenges. Initial access difficulties to some HEIs caused preliminary delays, which were subsequently compounded by difficulties identifying definitive data holders. In particular, it became apparent that data management varied across and within the different HEIs, as outlined in section 3.8.

On reflection, the decision to undertake telephone surveys was appropriate in keeping with pragmatism. Following the pilot study, it was clear that accessing accurate and clear data required me to be able to clarify points and explain terminology to respondents providing the data. At the outset it was hoped the survey data would be collected in a logical format (e.g. student year group, programme of study and type of disability). This was my perception on creating the survey which was based on my experience and the pilot study. Nevertheless, I was still surprised at my naivety regarding the difficulties that ensued when attempting to access the data
I needed. For example I had not anticipated some HEIs would identify several data holders, with each only accessing a section of the data needed.

In attempt to address the data collection barriers caused by the role distribution and the splitting of responsibilities within some HEIs, efforts were made to contact the range of post holders. Unfortunately even where participation had been agreed by the lead gatekeeper, some data was still not forthcoming because not all potential participants responded and/or they only provided portions of the required data. In some situations data was not readily available in the format sought and therefore I had to record data in the format it was provided. At times participants acknowledged data was unavailable to report or, in some cases, was not provided due to difficulty ascertaining the information from their own records. Hence, there were significant variations in the amount of information retrieved, due to more than one individual being involved in its collation and the diversity of data management systems adopted by the HEIs.

Using the flexibility provided by pragmatism I accessed statistics from the Higher Education Statistics Agency (HESA) to try to establish a fuller picture about student nurses with disabilities. I also returned completed telephone surveys to participants for checking in the hope of ensuring accuracy and perhaps accessing more data. Although three participants confirmed the accuracy of the data, no additional data was provided. Consequently phase one data was incomplete given that only partial data was retrieved from two HEIs and a third HEI did not provide any data at all. Incomplete survey completion mirrors experiences reported in the literature (Colon, 1997; Rangel et al, 2001; Sowers & Smith, 2004b; Nolan et al, 2014).

Documentary analysis was also a new endeavour for me. Again my naivety falsely reassured me that respondents would be able and willing to share guidelines and policy documents. Despite assertions that guidelines for the academic setting were available, only one respondent was able to share a policy document although two sent links to their HEI’s webpages while another three informed me such guidance was available on their HEI’s webpages. The decision to access the webpages for the
10 HEIs was to enable me to gain as broad an analysis as possible to describe and compare the underpinning guidance for supporting students with disabilities undertaking full-time pre-registration nursing education. It was also important to review the Equality Act (2010) and the guidelines and policies from the NMC to establish what the professional body offered to support HEIs and practice partners. As one respondent referred specifically to RCN guidance, this was also included in the documentary analysis.

Throughout phase two of the data collection I aimed to be as flexible as possible to meet individual respondent’s availability and needs. Where possible I travelled to a venue that was the most convenient place to meet participants, at a mutually convenient time. This flexibility was influenced by my own work and family commitments as well as environmental factors such as the weather and travel arrangements. Therefore one focus group was organised via Skype and two interviews had to be conducted via the telephone. Additional consideration had to be given to the preparation for these alternative arrangements. Participants were asked to ensure access to a venue which would be uninterrupted during the data collection and I had to organise the same type of facility was available as well as a telephone with a speaker so that I could record the conversations during telephone interviews.

Arguably the Skype focus group was more akin to a group interview. On reflection, as there were only two participants involved I seemed to have had a more prominent role in this data collection experience than in previous focus groups. This was evident in an extract from my reflective diary:

“This experience seems to have required more input from me and seemed more like an interview because the discussion did not appear to flow like the larger focus groups. It was more like the participants were responding to my questions rather than having a discussion. Perhaps this is because there were only two of them.”

(Reflective diary extract 22/01/2016)

The topic guide ensured data collection opportunities focussed on the areas of interest to address the research objectives. It was not surprising that my facilitation...
skills improved as I became more comfortable and experienced undertaking data collection. Reflecting on each episode gave me an opportunity to develop my facilitation skills and apply them in future sessions. Although the level of discussion varied, in some data collection episodes the discussion encompassed many of the points on the topic guide whereas at other times more direct questioning was required. As expected this was more evident in the interviews as I had to take a more active role when retrieving data from participants, which was a limitation of this method.

A difficulty I had not considered prior to the telephone interviews concerned the lack of visual input given participants’ non-verbal communication including body language could not be seen. Therefore sometimes the conversation was slightly stilted. The audio recordings were also not as clear as those taken during face-to-face sessions, which made transcription more difficult, particularly for the focus group where at times the voices of participants seemed very similar. This was managed when the transcription was returned to the participants for checking.

3.12.4 Data analysis

Learning how to present quantitative and qualitative data was not only challenging but also enjoyable at times. This element of the research process demanded the development of new skills so as to present descriptive statistics in the form of graphs to visually illustrate the results and identify emerging themes as part of my burgeoning ability to analyse qualitative data.

One of the biggest challenges during data analysis was trying to ensure I was being true to the perspectives of the participants, and not being swayed in my interpretation by my own beliefs, experiences and values. As outlined in 3.12.2, the insider-outsider phenomenon was considered during the research process. There were pros and cons to being an insider (Dwyer & Buckle, 2009). During the analysis it became apparent that at times the level of explanation from participants was limited, perhaps because assumptions were made about similarities in knowledge and
understanding. Indeed when I had reviewed the transcription of one focus group I realised that an acronym had been used repeatedly but I was unsure to what it referred. Therefore, when I sent the transcription for member checking, I specifically asked the participants to clarify its meaning.

It was apparent that during the analysis phase there were times during data collection when I had shared my experiences and perspectives, while on other occasions this had not occurred, a phenomenon that was similarly reported by Dwyer & Buckle (2009). On reflection, as a novice researcher, I was trying to reach a balance between sharing and not influencing participants. However, data analysis must remain true to the participants’ perspectives whether shared or different from mine as the researcher (Dwyer & Buckle, 2009). To achieve the latter authenticity of data reporting I repeatedly referred back to the transcripts to make sure that I reported was what participants had said, accurately representing participants’ perspectives.

3.13 Rigour

It is the responsibility of the researcher to ensure rigour (Morse et al, 2002). Rigour pertains to the depth and appropriateness of the research design to ensure the research conclusions are dependable, and while different terminology is adopted depending on the underpinning research tradition, the essence of rigour is to minimise bias, promote reliability, and ensure processes are transparent (Lacey, 2010; Gray, 2017c). Arguably, the use of a mixed methods approach is regarded as a way to ensure rigour although the umbrella term ‘validation’ has been proposed to capture the breadth of quality assurance processes to ensure rigour within mixed methods research (Giddings & Grant, 2009). For the purposes of this report the term ‘rigour’ has been adopted.

Assessing rigour within qualitative and quantitative research is challenging due to the different philosophical underpinnings (Eckhardt & DeVon, 2017; Gray, 2017d). Halcomb & Hickman (2015) assert that methods to establish rigour in mixed methods
studies are poorly defined but a clear audit trail including justified decision making is required. The umbrella term inference quality, which links to validity, refers to an evaluation of the quality of conclusions drawn from findings. Data quality, which links to reliability, can be used to establish the quality of mixed methods research (Venkatesh et al., 2013). However for the purposes of this thesis, in keeping with pragmatism, the ‘trustworthiness’ criteria identified by Lincoln & Guba (1985) as a parallel for the positivist quality criteria (validity, reliability and generalisability) will be used (Topping, 2010).

The credibility of research is demonstrated through how well the findings represent the participant’s perspectives (Moule & Goodman, 2014). As well as using purposeful sampling to access participants who could provide the required data and who had relevant experience to contribute rich data, every effort was made to provide an accurate representation of the data provided. Discussions with participants as well as reviews of transcriptions from both episodes of data collection by participants facilitated member checking (Polit & Beck, 2012). Member checking involved participants verifying the transcriptions and emergent themes. This was implemented to facilitate precision (Moule & Goodman, 2014). Verbatim quotes also have been included to support the accuracy of content in Chapter 5, and thus the credibility. The challenges of accessing data in phase one arguably impacted on the internal validity (credibility) due to the incomplete data sets (Lacey, 2010). However the use of methodological and data triangulation has contributed to the credibility of the study by providing a breadth and depth of data, and opportunity to confirm and validate the findings (Johnson & Onwuegbuzie, 2004; Simons & Lathlean, 2010, Polit & Beck, 2012).

While quantitative researchers seek generalisability, qualitative researchers consider transferability based on the provision of sufficient detail to establish whether findings can be transferred to another similar situation (Polit & Beck, 2012). Within the thesis ‘thick description’ of the research context including methods adopted and data gathered has been provided to support a readers decision making regarding its
transferability to other settings. Transferability of the research has also been addressed in Chapter 7 (conclusion).

Throughout the research, dependability has been promoted through my efforts to be transparent about the research process and the decisions I took along the way as part of an audit trail (Topping, 2010). Dependability is similar to reliability and refers to the accuracy and consistency of the data collection and whether comparable results would be obtained if the research were to be repeated with the same or similar participants in the same context.

The final quality criterion concerns confirmability which refers to the extent the findings stem from the data and not any bias on the part of the researcher (Polit & Beck, 2012). It is widely recognised that researcher bias is a fundamental risk within research (Creswell, 2009, Lacey, 2010). As outlined in sections 3.13 and 6.4, every effort was made to reduce bias and promote rigour throughout the process via the incorporation of reflexivity (Meyrick, 2006). From the ‘thick description’ and decision making trail, the links between the data, findings and interpretation should be evident to others (Topping, 2010). Discussion with my supervisors as part of the research process, and particularly with regards to data analysis and theme identification helped to promote confirmability.

3.14 Summary
This chapter has discussed ontology, epistemology and methodology. It has also presented an appraisal of the different approaches to research one can take. Justification for a sequential explanatory mixed methods pragmatic approach to explore the concept of reasonable adjustments in pre-registration nursing education in Scotland has been presented. The selected sampling, data collection methods and approaches to data analysis as well as management of ethical issues have been discussed. The importance of reflexivity has been highlighted and some examples of reflexivity included. The influence I had as a researcher has also been acknowledged.
with details of how potential bias was minimised. The next two chapters, Chapter 4 and Chapter 5 will present the findings, respectively, from phase one and phase two of the research.
Chapter 4: Findings – Phase one

4.1 Introduction

This chapter presents findings from the survey and documentary analysis undertaken in Phase one of the research, while Phase two findings are presented in chapter 5. As outlined in Chapter 3 (section 3.9), the survey intended to collect demographic data regarding pre-registration nursing students with disabilities in Scottish HEIs and the types of reasonable adjustments students could access. Information about the processes involved when identifying and implementing reasonable adjustments for students was also sought. Documents, including policies and guidelines, were requested as part of this mixed methods research to permit data triangulation to gain greater understanding of the processes. The quantitative data analyses are presented using graphs and tables to clearly and concisely illustrate the findings, supported by explanatory text. Descriptions and comparisons are also used to present the collated qualitative data generated in phase one.

From the nine HEIs offering full-time pre-registration nursing education programmes in Scotland that were approached to contribute to this research, seven participated. Eight respondents provided data for the seven HEIs: two respondents were employees at one HEI, and both had responsibility for a different cohort of students with disabilities. The data from the two respondents has been collated and any differences in the two respondents’ data have been reported on here as and where appropriate.

It is acknowledged that despite my best efforts to secure accurate and up-to-date data, the data set is incomplete, and at times not wholly accurate for the reasons outlined in Chapter 3. Despite this limitation, the collated data is still a valuable foundation because it provides insight into the identification, and implementation of reasonable adjustments in pre-registration nursing education in Scotland.
4.2 Respondents’ Roles within HEIs

The roles of respondents were identified to understand their input and potential influence on reasonable adjustments in pre-registration nursing education. As outlined in chapter 3 (section 3.6) it was anticipated respondents would encompass Academic Disability Coordinators (ADC) (or their equivalent). In fact seven of the eight respondents were ADCs and one was a Disability Advisor (DA) in a Higher Education Institution’s (HEI) Disability Services. As shown in Figure 4.1 seven of eight respondents held a variety of competing academic roles in their respective HEI.

Figure 4.1 Roles held by respondents within HEI\textsuperscript{10}

![Bar chart showing roles held by respondents within HEI](chart)

Each ADC was a nurse lecturer while six of them also fulfilled the role of supporting students with disabilities by being Academic Advisors\textsuperscript{11} (AAs). Four respondents (2, 5, 108

\textsuperscript{10} To preserve anonymity the respondents’ associated HEI has not been identified.
7 and 8) used the ‘other’ category to identify roles as Recognition of Prior Learning (RPL) Coordinator, Occupational Health (OH) liaison, and admissions tutor. Two respondents emphasised the importance of their role in admissions which permitted contact with prospective candidates prior to accessing their chosen programme of study.

Two respondents (4 and 6) were programme leaders, and one (6) was also practice placement coordinator. The multiplicity of roles may have been dictated by the size of the HEI and the numbers of staff supporting each pre-registration nursing programme. The fact that only one respondent had a role linked with practice was an interesting finding considering support must be made available to students with disabilities in both academic and practice environments. Thus the finding suggests that for the majority of HEIs support in practice settings was considered to be the responsibility of practice based staff.

4.3 Pre-registration Nursing Education Programmes in Scotland

The Scottish Government’s Setting the Direction agenda (Scottish Government, 2014) outlined in Chapter 1 (section 1.3) determined which pre-registration nursing programmes of study were available in which institution. At the time of data collection, 25 full-time pre-registration nursing programmes were offered in Scotland. Opportunities were available to study for registration in all fields of nursing (Adult, Child, Learning Disability or Mental Health Nursing) through a variety of 3-year (ordinary) degree programmes across six HEIs. However pre-registration four-year honours-level study was only available to students wishing to pursue a career in adult or mental health nursing at five of the 10 HEIs offering nursing programmes (Figure 4.2 overleaf).

The term Academic Advisor covers other academic support roles including Link Lecturer, Liaison Lecturer or Personal Tutor.
Collectively the seven participating HEIs offered 17 programmes of study, five of which were four-year honours degree programmes. Honours level study was available in four HEIs (1, 4, 5 and 6) but only HEI 6 offered both three and four year programmes. A summary of the programmes offered by participating HEIs is provided in Table 4.1.

**Table 4.1: Summary of pre-registration nursing programmes by HEI:**

<table>
<thead>
<tr>
<th>Field/years of study</th>
<th>Adult</th>
<th>Child</th>
<th>Learning Disability</th>
<th>Mental Health</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEI 1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>HEI 2</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>3</td>
</tr>
<tr>
<td>HEI 3</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>4</td>
</tr>
<tr>
<td>HEI 4</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>HEI 5</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>HEI 6</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>4</td>
</tr>
<tr>
<td>HEI 7</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>17</td>
</tr>
</tbody>
</table>
4.4 Numbers of Pre-registration Nursing Students in Scotland

Identifying the numbers of pre-registration nursing students in Scotland at the time of data collection was challenging. According to statistics from Information Services Division (ISD) Scotland (2016) as of 31st October 2014 there were 9109 pre-registration nursing students in Scotland across the four fields of practice. In an attempt to ascertain the breakdown of student nurse numbers across Scottish HEIs, statistics were requested from the Higher Education Statistics Agency (HESA) (see Table 4.2).

Table 4.2: HESA data by code

<table>
<thead>
<tr>
<th>Code</th>
<th>Student Nos.</th>
<th>Total Number of students listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>B700 Nursing</td>
<td>2473</td>
<td></td>
</tr>
<tr>
<td>B730 Children’s</td>
<td>527</td>
<td></td>
</tr>
<tr>
<td>B740 Adult</td>
<td>5079</td>
<td></td>
</tr>
<tr>
<td>B760 Mental Health</td>
<td>1375</td>
<td></td>
</tr>
<tr>
<td>B761 Learning Disability</td>
<td>284</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9738</td>
<td></td>
</tr>
</tbody>
</table>

Analysis of the HESA data suggested HEIs reported their student numbers in different ways. While some HEIs recorded numbers by field of nursing practice (i.e. B730 Children’s, B740 Adult, B760 Mental Health and B761 Learning Disability), all ten HEIs offering full-time pre-registration nursing education programmes in Scotland, used category B700 Nursing. It was evident that the HESA data included over 600 more students than the data obtained from ISD. Having sought advice from HESA to decipher these reporting differences, it seemed that B700 may be used as a ‘catch all’ code by some HEIs, particularly those offering only one pre-registration nursing programme. As it was unclear what, if any overlap, was present in the HESA data due to varying use of codes and inconsistent categorisation of data, for the purposes of this research the ISD data has been used as the baseline figure for student numbers.
Data were collected from HEIs from November 2014. While seven HEIs offered data in response to the survey, it was important to be mindful that the data was only as complete as the information provided by the respondent, and accuracy was influenced for example by the timing of any updates to changes in student status (suspension of studies, return to studies), as well as the data collection challenges highlighted previously (see Chapter 3, section 3.8.1). Variations in data management processes and different role responsibilities within HEIs resulted in partial data from HEI 3 and HEI 7 being obtained. Table 4.3 details the numbers of pre-registration students undertaking nursing education identified in the data provided by participating HEIs and how this equated to the number provided by ISD.

Table 4.3: Numbers and percentages of students in participating HEIs

<table>
<thead>
<tr>
<th>Student Nos.</th>
<th>Total Number of students listed by HEI</th>
<th>% of all students reported by HEIs</th>
<th>% of ISD student numbers (n = 9109)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEI 1</td>
<td>165</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>HEI 2</td>
<td>1109</td>
<td>31</td>
<td>12</td>
</tr>
<tr>
<td>HEI 3</td>
<td>935</td>
<td>27</td>
<td>10</td>
</tr>
<tr>
<td>HEI 4</td>
<td>142</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>HEI 5</td>
<td>147</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>HEI 6</td>
<td>625</td>
<td>18</td>
<td>7</td>
</tr>
<tr>
<td>HEI 7</td>
<td>385</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>3508</td>
<td>100%</td>
<td>39%</td>
</tr>
</tbody>
</table>

From the data collected, the actual number of pre-registration nursing students within the seven participating HEIs was 3508, which equated to approximately 39% of the total number of students in Scotland (ISD, 2016). The remaining 61% were

---

12 Only partial data was available from HEIs 3 and 7
13 Data from HEIs 3 and 7 were incomplete.
accounted for in the distribution of students at the excluded and the two non-participating HEIs, as well as the incomplete data sets form HEIs 3 and 7.

Using the data provided by respondents as a basis for comparison with ISD figures, three HEIs (1, 4 and 5) provided education for 6% of the total number of students in Scotland. However if the proportion of students was calculated using the numbers of students listed by participating HEIs, the same three HEIs supported 13% of listed students. Similarly, HEI 2 provided education for 12% of ISD student figures, but reportedly 31% of students within the data gathered. Figure 4.3 illustrates the distribution of pre-registration nursing students within participating HEIs from the data.

Figure 4.3: Percentage of pre-registration nursing students reported in HEI data

<table>
<thead>
<tr>
<th>HEI</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEI 1</td>
<td>11%</td>
</tr>
<tr>
<td>HEI 2</td>
<td>31%</td>
</tr>
<tr>
<td>HEI 3</td>
<td>27%</td>
</tr>
<tr>
<td>HEI 4</td>
<td>5%</td>
</tr>
<tr>
<td>HEI 5</td>
<td>4%</td>
</tr>
<tr>
<td>HEI 6</td>
<td>4%</td>
</tr>
<tr>
<td>HEI 7</td>
<td>5%</td>
</tr>
</tbody>
</table>

Clearly pre-registration nursing programmes across Scotland educate variously sized student cohorts. HEIs 2 and 3 alone provide pre-registration nursing education for 58% of students recorded in the data. The ISD figures suggested HEIs 2 and 3 supported ≈22% of the Scottish student nurse population. As highlighted previously, there were three HEIs in Scotland that did not contribute to the data, and it was known the data from HEIs 3 and 7 were incomplete. Therefore the reported data

---

Only partial data was available for HEIs 3 and 7
does not provide an accurate representation of the student allocation across Scotland. However I can confidently state that the distribution of student population is variable and can be accounted for by the different sizes of HEIs, the number of programmes offered and their corresponding cohort sizes.

4.5 Number of Pre-registration Nursing Students with Disabilities

Respondents were asked to detail the number of pre-registration nursing students on their programmes who had disclosed a disability. Some respondents were unable to provide a complete data set despite knowing what data would be requested in advance of the telephone survey being completed (see chapter 3 section 3.9.1). For example the requested information about pre-registration nursing students with disabilities was not available to the respondent for HEI 5. Furthermore, two HEIs (6 and 7) only provided numbers per year group, but could not drill down to programme/field specific data. Due to staff having split responsibilities for supporting students with disabilities within some HEIs, three respondents could only offer partial data regarding students with disclosed disabilities. From the data provided, figure 4.4 illustrates the percentage of the student nurse population reported as having a disclosed disability at each HEI.
The proportion of students with disabilities at participating HEIs ranged from 3-18%. The mean percentage of students with disabilities from the six data sets provided was 9%. Comparing this to official data (HESA, 2017), in 2014-15, 8 - 18% of all students at Scottish HEIs had disclosed disabilities. HESA data also recorded that 11% of students registered on Scottish nursing programmes coded B700, B730, B740, B760 and B761 had disclosed a disability (HESA, 2017), more than the reported mean. It was surprising that the range of students with disabilities was so varied but as HEI 5 was unable to confirm the number of students with disabilities, and data was incomplete for HEIs 3 and 7, it was not possible to provide a more accurate representation of the numbers.

Interestingly, even with the incomplete data set, the distribution of students with disclosed disabilities against the distribution of the population of pre-registration nursing students within each responding HEI was markedly disproportionate. From the available data, figure 4.5 represents the distribution.

\[\text{No data was provided for HEI 5 and only partial data was available for HEIs 3 and 7}\]
From the data available, HEI 6 had almost 18% (n = 625) of the reported total number of student (n = 3508) and almost 18% (n = 110) of the students attending HEI 6 had disclosed disabilities. In comparison, 13% (n = 22) of HEI 1’s student population (n = 165) had disclosed disabilities although HEI 1 had less than 5% of the total population of students reported in the data. HEI 1 was therefore an outlier with a comparatively greater proportion of students with disclosed disabilities in their cohort. Based on the available data, HEIs 2, 3 and 7 had disproportionately lower numbers of students with disabilities against the share of students registered on their nursing programmes. However again it is essential to acknowledge the percentages may have been quite different if the full data set had been available. For example, HESA data suggested 15% of the students at HEI 3 had disclosed a disability, which is more than double the numbers reported to have disclosed in this study.

Presenting the data differently to consider the proportion of students with disabilities within each HEI’s reported student nurse population provides quite a different

---

16 No data about number of student nurses with disabilities was provided for HEI 5 and only partial data was available for HEIs 3 and 7
illustration. Figure 4.6 represents the numbers of students and students with disabilities at each HEI according to the HEI-provided data.

**Figure 4.6: Numbers of student nurses with and without disabilities by HEI**

The reported total number of students with disclosed disabilities is 288. From the data on figure 4.6 it is evident that HEI 6 supported 110 of the students with disabilities, which equates to 38% of the total number of students with disabilities. In comparison, HEI 4 supported 8 students with disabilities, less than 3% of the total number of students with disabilities, while 12 students with disabilities (4%) attended HEI 7. Thus from the data, HEI 6’s student cohort includes a markedly disproportionate distribution of students with disabilities. This is despite only 18% of the total student population studying at HEI 6. Figure 4.7 provides an alternative representation of the distributions using percentages.

---

17 No data about number of student nurses with disabilities was provided for HEI 5 and only partial data was available for HEIs 3 and 7
Interestingly HEIs 2 and 3 also supported a student population with a greater than average representation of people with disabilities. While it is unclear why there should be such variation, consideration of the demographics of the HEIs suggested distribution could be due to the HEI’s location, size and/or the programmes of study available as well as the Scottish Government’s widening participation agenda.

4.6 Types of Disabilities Disclosed by Student Nurses

As part of the admissions process all HEIs use categories for disabilities, special needs and medical conditions provided by the Universities and Colleges Admissions Service (UCAS) to code the types of disabilities disclosed by students. Therefore it was appropriate to use the UCAS codes to gather data about the types of disabilities reported by student nurses. The UCAS categories are detailed in Table 4.4

18 No data about number of student nurses with disabilities was provided for HEI 5 and only partial data was available for HEIs 3 and 7
Table 4.4 UCAS Disability Categories (UCAS 2016)

<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Specific Learning Difficulty (SpLD) i.e. dyslexia, dyscalculia, dyspraxia, dysarthria</td>
</tr>
<tr>
<td>2</td>
<td>Social/communication impairment i.e. Asperger's Syndrome or Autistic spectrum disorder</td>
</tr>
<tr>
<td>3</td>
<td>Blind / visual impairment uncorrected by glasses</td>
</tr>
<tr>
<td>4</td>
<td>Deaf / serious hearing impairment</td>
</tr>
<tr>
<td>5</td>
<td>Long term condition or illness i.e. cancer, HIV, diabetes, chronic heart disease, epilepsy</td>
</tr>
<tr>
<td>6</td>
<td>Mental health condition i.e. depression, schizophrenia or anxiety disorder</td>
</tr>
<tr>
<td>7</td>
<td>Physical impairment / mobility issues i.e. difficulty using arms or use a wheelchair or crutches</td>
</tr>
<tr>
<td>8</td>
<td>Disability/ impairment/ medical condition not listed above</td>
</tr>
<tr>
<td>9</td>
<td>Two or more disabilities/ impairment / medical condition.</td>
</tr>
</tbody>
</table>

During data collection two respondents (HEIs 1 and 6) advised in addition to using the UCAS codes, the category of ‘other’ was also used to record temporary injuries and/or students requiring OH support. Neither HEI 1 nor HEI 6 recorded any students within the UCAS category ‘8 - a disability, impairment or medical condition that is not listed above’ during data collection. However the respondents were not clear whether the students listed within ‘other’ could have been captured within UCAS code 8. Therefore this ‘other’ category has been included within the data set to reflect the situation as declared by respondents. As with previous sections of the survey, HEI 5 was unable to offer data concerning the disability codes recorded for students who had disclosed disabilities. Figure 4.8 details the types of disabilities disclosed by students at the remaining participating HEIs.
It was evident HEIs supported students with a range of disabilities. The data revealed the only disability category that all six HEIs provided support for was Specific Learning Difficulty (SpLD). Four HEIs supported students with disclosed long term conditions (HEIs 1, 3, 6 and 7) and mental health conditions (HEIs 1, 2, 3 and 6), while two HEIs (1 and 4) provided support for students with Social/Communication impairments. This was an interesting finding considering nurses were required to effectively communicate and establish therapeutic relationships through the application of interpersonal skills. According to the data collected, visual impairment was the only disability not supported within pre-registration nursing programmes at any of the participating HEIs.

19 Data was unavailable from HEI 5
4.7 Student Nurses within Each Category of Disability

The respondents were asked to provide data concerning the numbers of students recorded within each disability category. Figure 4.9 illustrates the data provided about the percentage of all students who had disclosed a disability within each category.

**Figure 4.9 Percentage of student disclosures within each disability category**

From the six HEIs who provided data, it was clear the largest group of students with disabilities had disclosed a SpLD (n = 190). The range of students reported as having SpLD within the participating HEIs was 57% - 83%. However, as before, caution needs to be advised when interpreting the results, given that the data set was incomplete.

4.8 Identification of Student with Disabilities – Disclosure

Respondents were asked to outline how students with disabilities were identified. From the forced choice answers and qualitative data offered in response to the

---

20 No data from HEI 5, incomplete data from HEIs 3 and 7
survey question, disclosure occurred in a variety of ways. However it was indicated that agreed processes were in place to facilitate disclosure.

All respondents acknowledged disclosure was usually made at the point of application (through completion of the UCAS form), through self-declaration by students on commencement of their programme of study, or when students had difficulties with academic work. Within five HEIs (1, 2, 3, 6 and 7) students with disabilities had also been identified from situations which highlighted issues with practice skills either during practice simulation or when the student was on practice placement. Practice performance was not linked to disclosure or identification of students with disabilities in the remaining two HEIs (4 and 5).

While specific numbers of disclosures by each of the outlined modes of identification were not provided, respondents agreed the majority of students were identified through UCAS disclosure. It was acknowledged in certain situations students opted not to disclose a disability on their UCAS application for fear that they would not be offered a place on the programme as a result of their disability. However respondents stated some students chose to disclose following information provided by staff at applicant information events, selection interviews or even induction sessions. This point was particularly highlighted by the respondents who were admission tutors.

For some students with disabilities, disclosure was prompted when they were asked to sign the Declaration of Good Health and Good Character on commencement of their programme of study. This requirement is in keeping with Good Health and Good Character guidance for HEIs provided by NMC guidance (NMC, 2016).

4.9 Identification of Student Support Needs

To follow on from the identification of students with disabilities, respondents were asked to outline the processes for identifying support needs required by students
who had disclosed disabilities. Without exception, the narrative responses indicated similar processes. Following disclosure, students were invited to meet with a DA at the HEIs’ Disability Services to discuss the nature of their disability, its actual and potential impact on learning, and previous support measures that had been implemented. Meeting with a DA was voluntary, although students were encouraged to attend the meeting to ensure that recommended support mechanisms could be agreed.

Students were requested to provide evidence of their disability, which may include an Educational Psychologist’s report regarding SpLD and medical letters to confirm diagnoses for example. However not all students who had disclosed SpLD could provide evidence despite having previously accessed support. For example it was reported that in some circumstances where it was suspected at school that an individual may have a SpLD, formal diagnosis was not sought from Educational Psychologists, in part due to the expense involved. Thus students had received support to manage difficulties with learning without a formal diagnosis. In such situations, or when it was deemed necessary to access further information or re-assessment, students were referred by the DA to an Educational Psychologist for screening and/or assessment before support recommendations were proposed.

Once recommendations for reasonable adjustments were agreed between the DA and student, with the student’s consent, information regarding the support recommendations was disseminated to the disability contact for the student’s programme of study i.e. ADC. In three HEIs (3, 5 and 6) ADCs reviewed the recommended reasonable adjustments with a view to amending and/or adding to the recommendations to ensure support suitable for the practice setting was offered. The respondents acknowledged the review was necessary because most recommendations from the DA were focussed on support measures clearly manageable in the academic setting (e.g. extra time, scribe), but sometimes deemed unsuitable for practice settings.
All respondents advised that information regarding support recommendations and reasonable adjustments was shared with other members of the programme team. Curiously, despite several references to consent when outlining the processes for identifying support measures, only HEI 1 reported that students were required to sign a consent form to permit the dissemination of information about their disability and support plan. No other respondent explicitly referred to consent being verified.

Within the narrative provided, only three respondents (HEIs 1, 3 and 6) made any reference to practice when discussing the processes involved in identifying support needs. This mainly referred to practice-based issues and how discussions with the students were required to identify how support measures may be altered to address the issues. Only one respondent (HEI 3) suggested the mentor would be involved in discussions, if the student consented. Overall it appeared there was little consideration offered to support the student beyond the academic setting. This was reinforced by respondents (HEIs 1, 3 and 6) stating students were responsible for disclosing their needs to practice-based staff so that support measures were identified. Figure 4.10 (overleaf) provides an illustration of the disclosure and support identification processes described by the respondents.
Figure 4.10 Flowchart of HEI processes for disclosure and identification of support measures

Dotted lines around steps in the process and dotted arrows indicate these parts of the process are not followed by all HEIs. Disclosure in practice is unconnected because it is the student’s responsibility.
In an attempt to further clarify the processes involved in identifying the support needs of students with disabilities, respondents were asked to identify with whom students met and who may be involved in discussions about support needs. Figure 4.11 represents the range of responses obtained.

**Figure 4.11 Staff roles that meet with students and/or discuss support needs**

There were evident similarities across participating HEIs with regards to the different roles involved in identifying students’ support needs. In all seven HEIs DAs and AAs were reportedly involved in meeting students and discussing support needs. ADCs were also involved in all except HEI 1 which did not have an identified ADC role. HEIs 3, 5 and 6 involved OH in meetings and/or discussions about student support where necessary. In three HEIs (1, 5 and 6) students with disabilities met with Programme Leads or the Head of Nursing Education to discuss their support needs. As outlined previously it is worth noting that each of the three HEIs (1, 5 and 6) had smaller cohorts than other participating HEIs, and consequently individual staff held many of the key roles identified in this study. For example in HEI 5 the Programme Lead was also the ADC and Placement Coordinator. Therefore while it may appear that several individuals were involved in the processes, the fact that academic staff held multiple roles meant that sometimes only one or two individuals were directly involved in meeting students to discuss and identify support needs.
With regards to ‘others’ that may be involved in the identification of support needs for students with disabilities, only HEI 3 identified the role of the Academic Development Tutors (ADT) in the process. This was an interesting finding considering that ADTs enhance the student experience through the provision of additional proactive academic support. HEI 4 reported that at times a student's General Practitioner (GP) would be involved in discussions about support, depending on the nature of the disability. Only HEI 3 included Health and Safety in discussions about support, with particular reference to risk assessments for the practice environment. Thus again responses focused mainly on HEI-based staff, and arguably support in academic as opposed to practice settings.

4.10 Types of Reasonable Adjustments Offered

Using eleven recognised types of reasonable adjustments respondents were asked to select reasonable adjustments offered to student nurses with disabilities in academic and practice settings. Opportunity was also given for respondents to specify any other reasonable adjustments that would be offered. Figure 4.12 (overleaf) presents the numbers of reasonable adjustments reported as available to students with disabilities in each HEI’s academic and practice settings.
It was evident from the data there were interesting variations in the number of reasonable adjustments offered by HEIs. HEI 3 identified 21 reasonable adjustments in total that would be offered to students compared to HEI 4, which selected only six. The mean was 13: nine in academic settings in contrast to four in practice settings. With the exception of HEI 3, the HEIs offered more reasonable adjustments in academic than in practice settings. There were also apparent differences between HEIs regarding the types of reasonable adjustments made available to students with disabilities in both academic and practice settings. Fewer reasonable adjustment types were offered in the academic setting ($n = 12$) compared with the practice setting ($n = 17$). This was probably because some recommended support measures were more suitable to a particular context i.e. academic or practice settings. Figures 4.13 and 4.14 provide illustrations of the types of reasonable adjustments offered in the two settings where pre-registration nurses undertake their education.
Figure 4.13 Reasonable adjustments offered in academic setting

Number of HEIs

Available  Not available

- Other - proof reading service
- Computer access (desktop or laptop)
- Use of calculator
- Timetabling
- Assistive software
- Coloured paper / acetate
- Reader
- Scribe
- iPads / Tablets
- Digital Recorders
- Extra time

Figure 4.14 Reasonable adjustments offered in practice setting

Number of HEIs

Available  Not available

- Other - specific practice areas e.g. (speech, language, motor)
- Other - physical disabilities/impairments
- Other - assess alarms / buzzer auditory
- Other - practice risk assessment
- Computer access (desk or laptop)
- Use of calculator
- Altered shift patterns
- Assistive software
- Coloured paper / acetate
- Reader
- Scribe
- iPads / Tablets
- Digital Recorders
- Extra time
The majority of HEIs offered most of the eleven listed reasonable adjustments in the academic setting. All HEIs provided extra time and sole/limited occupancy rooms were available for assessments and exams. The use of coloured paper/acetates to minimise visual stress was offered, and access to assistive software and engagement of a scribe were available to students with disabilities, if required. Only three respondents (HEIs 1, 2 and 5) selected access to iPads/tablets as an available reasonable adjustment but use of a laptop or desktop, digital recorders for lectures, and access to a reader were offered by all except HEI 4. Access to proof reading services was only offered by two HEIs (1 and 6) as an ‘other’ type of support. This perhaps was because all HEIs offered assistive software to support academic writing, making the use of a proof reader redundant. Two HEIs (HEIs 2 and 3) reported reasonable adjustments could be made to timetabling. This may be because these HEIs had comparably larger student cohorts and were therefore able to facilitate timetable alterations more readily than a smaller provider. This potentially would be more feasible in a larger cohort because there were likely to be a variety of scheduled classes for each module for students to access, with agreement of staff.

Respondents added six reasonable adjustments available in practice to the pre-determined list provided. However in comparison to the academic setting, the larger list of identified reasonable adjustments offered in practice settings were less likely to be available across the HEIs and were reportedly more difficult to manage due to the variety of practice areas accessed by students. None of the respondents selected reader, scribe or access to sole or limited room occupancy as reasonable adjustments in practice settings. Only altered shift patterns were selected by all respondents. Five participating HEIs (1, 2, 3, 5 and 6) considered location of practice settings as a reasonable adjustment. For example, practice location was considered with regards to minimising travel time. HEIs 3, 5 and 6 would also exclude particular practice areas from a student’s practice experiences. This would only happen if the student’s support requirement detailed this recommended adjustment due to the outcome of a risk assessment. For instance, students would not be allocated to an Infectious Diseases Unit if they were immunocompromised.
In practice settings computer access was offered (HEIs 1, 2 and 3) but only HEI 1 confirmed that assistive software was available to students. The other two HEIs (2 and 3) considered access to iPads/tablets a reasonable adjustment in practice settings but did not explicitly indicate assistive technology support was available. The respondent for HEI 5 also selected assistive software but not computer access or iPad/tablet use. Due to the clear differences in computer access between academic and practice settings respondents were asked how students accessed assistive technology in practice settings. Only the respondent from HEI 1, who selected this adjustment for practice, could confirm assistive technology availability in practice settings, the other respondents were unable to advise. This was another example where support measures in academic settings may not be available to students with disabilities in practice. However it was important to acknowledge there may be several underpinning reasons for the difference between the two contexts. For example academic and practice settings have their own Governance policies related to data access, confidentiality and security.

Several of the ‘other’ reasonable adjustments identified as available pertained to students with sensory impairments like hearing loss. Two HEIs (5 and 6) offered the use of amplified stethoscopes to support students with hearing impairment, and as well as HEI 5, HEI 3 identified the need to check the audibility of buzzers and alarms in practice as part of the support mechanisms for these students. In HEI 3 students with hearing loss would not be sent to theatre placements due to the impact of face masks on audibility and lip-reading, thus potential communication challenges were minimised. Of the three HEIs detailed, only the respondent from HEI 6 reported students with hearing impairment were registered on their pre-registration nursing programmes and were accessing support. HEI 2 also had students with hearing impairment but did not detail any specific reasonable adjustments pertaining to hearing loss. It was unclear whether this was an oversight when providing data or if the specific support for hearing loss was not offered or not required by the students.
For some of adjustments listed in Figures 4.13 and 4.14 the suitability to academic rather than practice settings and vice versa was easily explained by respondents. For example, in practice settings it would not be appropriate for students to be in sole or limited occupancy rooms, especially when their practice experience may be in a ward. However in academic settings, particularly for examinations, sole or limited occupancy rooms were easily facilitated and this could also be accommodated for assessments completed in the practice simulation environment. However facilitating sole or limited occupancy rooms was not so easily managed for learning and teaching sessions, for example lectures, particularly when HEIs had large student cohorts to accommodate. Scribes and readers were reportedly readily available in the academic setting to support students with disabilities with note taking and reading of materials or examination scripts, but not in practice. The main reason offered pertained to the requirements for student nurses to be able meet the required standards for documentation and record-keeping. Altered timetabling/shift patterns were offered in practice by every participating HEI because it was relatively straightforward to negotiate alternative shifts but variable timetables were not so manageable in the academic setting, mainly due to resourcing.

4.11 Communication of Reasonable Adjustment Recommendations

As outlined in section 4.9, the HEIs’ Disability Services made recommendations concerning support that could be offered to students with disabilities to facilitate teaching and learning. The recommendations were agreed with the student and consent to share was provided. The procedures to support disclosure and identification of students’ support needs highlighted different levels of communication and availability of information between academic- and practice-based staff involved in supporting students with disabilities. Table 4.5 details the modes of communication used within HEIs.
Table 4.5: Modes of communication in academic settings

<table>
<thead>
<tr>
<th>Communication mode</th>
<th>Recommendations circulated to academic staff</th>
<th>Central repository / shared drive</th>
<th>Student’s file / record</th>
<th>Student’s responsibility to inform staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>X</td>
<td>√</td>
<td>√</td>
<td>X</td>
</tr>
<tr>
<td>2</td>
<td>√</td>
<td>√</td>
<td>X</td>
<td>√</td>
</tr>
<tr>
<td>3</td>
<td>√</td>
<td>√</td>
<td>X</td>
<td>√</td>
</tr>
<tr>
<td>4</td>
<td>√</td>
<td>X</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>5</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>6</td>
<td>X</td>
<td>√</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>7</td>
<td>√</td>
<td>X</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

With the exception of HEI 6, all other respondents selected at least two modes of communication that were used to disseminate reasonable adjustment recommendations. Five HEIs (2, 3, 4, 5 and 7) circulated the teaching and learning recommendations for students with disabilities to relevant academic staff. Within three HEIs (2, 5 and 7) information was disseminated to the students’ AAs while three others (HEIs 1, 3 and 4) shared the information with the year lead. Four HEIs (1, 4, 5 and 7) filed detail about students’ reasonable adjustment recommendations in the students’ records. Shared computer drives were used in five HEIs (1, 2, 3, 5 and 6) to store student support information. Nonetheless the respondent for HEI 1 acknowledged this approach to sharing information relied on individual staff proactively seeking out the detail, which at times could lead to support recommendations being missed if staff failed to check the shared drive for information.

The option ‘student’s responsibility to inform staff’ was not selected by two respondents (HEI 1 and 6) as an alternative means of communicating support needs. Arguably student disclosure could prompt academic staff to check the shared drive for support recommendations including reasonable adjustments. In this way student involvement could minimise the risk of support recommendations being missed by academic staff.
There were also noticeable differences between HEIs’ processes for communicating recommended support measures and reasonable adjustments to practice settings, as outlined in Table 4.6

### Table 4.6 Communicating reasonable adjustment requests to practice

<table>
<thead>
<tr>
<th>Key: ✓ Yes   X No Communication mode</th>
<th>Adjustments communicated to PEF</th>
<th>Adjustments communicated to placement manager/mentor</th>
<th>Detail within student’s ongoing achievement record (OAR)</th>
<th>Student’s responsibility to inform staff</th>
<th>Pre-placement meeting organised</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEI 1</td>
<td>X</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>HEI 2</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>HEI 3</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>HEI 4</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>HEI 5</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>HEI 6</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>HEI 7</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

In keeping with their responses for academic settings, five respondents (HEIs 2, 3, 4, 5 and 7) suggested the student was responsible for communicating information regarding support measures and reasonable adjustments to practice staff. In fact, from the data provided this was the most selected mode of communication. Curiously, with the exception of HEI 7, which had an incomplete data set, despite the onus being placed with the student, the other four HEIs (2, 3, 4 and 5) reportedly helped to facilitate pre-placement visits for students where required. This suggested partnership between the student and academic staff to organise a meeting with practice mentors to discuss and agree support measures prior to the practice experience commencing. However only the respondent from HEI 3 had previously indicated mentors could be involved in identifying means of support. HEIs 1 and 6 did not deem communicating support needs to practice settings the student’s responsibility, which was similar to their perspective about academic settings. Additionally they did not select facilitated pre-placement meetings as an option. HEI 6 solely communicated support recommendations directly to the
Practice Education Facilitator (PEF) which was a method also selected by HEIs 3 and 5. However HEIs 3 and 5 also communicated directly with the placement manager (e.g. Ward Manager/Senior Charge Nurse/District Nurse) and/or mentor about students’ support needs, which was the single communication strategy selected by the HEI 1 respondent. Although all pre-registration nursing students are required to maintain a portfolio, it is worth noting only HEI 7 identified this record of student progression, which includes Placement Learning Assessment Documents and mentor feedback, as a means of communicating support strategies and recommended reasonable adjustments to practice.

4.12 Who Decides What Reasonable Adjustments Can Be Implemented?
As highlighted in section 4.9 there were differences in the reasonable adjustments offered by participating HEIs, more so in practice than academic settings. Thus it was pertinent to establish who was involved in decisions about the implementation of reasonable adjustments. Figures 4.15 and 4.16 illustrate this detail.

---

22 Scottish HEIs have introduced a nationally developed Scottish Ongoing Achievement Record (OAR) to replace local portfolios when pre-registration nursing programmes are revalidated.
In all participating HEIs the HEI Disability Services recommended what reasonable adjustments should be implemented in academic settings. The ADC was also involved in the six HEIs where the role existed. Only three HEIs (1, 3 and 5) involved AAs in decisions about reasonable adjustments, which was intriguing considering arguably the AA was more likely to know the students and their approaches to
learning. Occupational Health was involved in decisions concerning support in the academic setting for students at HEIs 2 and 3, and HEI 3 had involved Mental Health and Epilepsy specialists to ascertain support recommendations for students with specific clinical disabilities. The ADC at HEI 6 advised that the Programme Management Group were consulted where necessary, to help inform decisions about reasonable adjustments in academic settings.

The maximum number of roles identified as involved in decisions about reasonable adjustments in practice was six (DA, ADC, Placement Team, Placement Manager/Mentor, PEF and OH) with the minimum one (ADC). Five of six HEIs with an ADC role involved the ADC in decisions. Interestingly HEI 2 did not involve the ADC despite this role being held by a nurse lecturer who would have knowledge and experience of practice settings that may have contributed to decisions. Instead HEI 2 involved the AA in decisions about practice-based support, as did HEIs 3 and 5. The other HEIs did not involve the AA. Based on earlier findings that DAs tended to focus on the academic setting when making support recommendations, it was not surprising that, with the exception of HEI 1 which did not have an ADC role, only 2 other HEIs (4 and 6) involved Disability Services in decisions concerning reasonable adjustments in practice.

When reasonable adjustments were recommended for practice five HEIs (2, 3, 4, 5 and 6) involved placement managers and/or mentors in the decisions. Although not unpicked during data collection, it may have been useful to distinguish between the inputs of the placement managers compared with mentors in decisions about reasonable adjustments in practice. HEI 6 engaged PEFs and the team who allocated placements (placement team) in decisions. HEI 5 also included the placement team and placement coordinator in decisions but did not involve PEFs. Occupational Health was invited to participate in decisions regarding support for practice by HEIs 2, 3 and 6. HEI 2 also advised that Health and Safety advisors from practice were involved in discussions about reasonable adjustments for students with disabilities where necessary.
4.13 Guidelines to Support Decisions about Reasonable Adjustments

Respondents for all seven participating HEIs confirmed they had guidelines to support decisions about support for students with disabilities in academic settings, while only four HEIs (1, 4, 5 and 6) had similar guidelines for practice. HEIs 2, 3, and 7 respondents advised that their guidelines were based on general HEI guidance regarding support for any student with a disability. Therefore the guidance did not formally focus on the specific requirements of students on pre-registration nursing programmes. This explained why there was an apparent lack of consideration regarding support for students in practice.

HEI 3 and 6 respondents acknowledged guidelines had evolved through experience of supporting students with additional support needs but only HEI 6 reported that guidelines pertinent to practice were detailed in programme documentation which was available to students and staff. One respondent (HEI 3) made explicit reference to the equality legislation for guidance, while another respondent (HEI 5) acknowledged the availability of Royal College of Nursing (RCN) publications. None of the respondents referred to guidance from the Nursing and Midwifery Council (NMC).

4.14 Documentary Analysis

As detailed in chapter 3 (section 3.8.3), documentary analysis was undertaken to augment my understanding of the processes involved in identifying and managing the implementation of reasonable adjustments in pre-registration nurse education in Scotland.

Copies of any available guidelines were requested from respondents. One respondent (HEI 6) provided a copy of the Fitness for Practice Policy, while another (HEI 4) printed information from the Disability Service’s webpages. Three respondents (HEIs 1, 2 and 4) advised that guidelines were available online.
Due to the limited supply of guidelines obtained from respondents, and with only one Fitness for Practice Policy shared, HEI webpages were searched for information and guidelines regarding disability support and reasonable adjustments. As the webpages are in the public domain, data was collected from the ten Scottish HEIs providing full-time pre-registration nursing education.

Initial analysis noted the occurrences of specified terms and concepts and this is displayed in Table 4.7

**Table 4.7 Quantitative analysis of HEI webpages**

<table>
<thead>
<tr>
<th>HEI</th>
<th>Credible Resource</th>
<th>Key Terms / Concepts included</th>
<th>Reference to other Policies</th>
<th>Support examples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>√</td>
<td>Types of Disability</td>
<td>Code of Student Discipline / Conduct</td>
<td>Academic Setting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consent</td>
<td>Fitness to Practise / Practice (Good Health and Good Character)</td>
<td>Academic Setting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Accessible and/or inclusive</td>
<td>Academic Adjustments / Accessible and Inclusive Learning Policies</td>
<td>Practice Setting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reasonable Adjustment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Processes for accessing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support outlined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>√</td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>2</td>
<td>√</td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>3</td>
<td>√</td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>4</td>
<td>√</td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>5</td>
<td>√</td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>6</td>
<td>√</td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>7</td>
<td>√</td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>8</td>
<td>√</td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>9</td>
<td>√</td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>10</td>
<td>√</td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

Without exception the majority of guideline data was accessed through HEIs’ Disability Services webpages and therefore the resources were all viewed as credible. General information about disability services and support was available for staff and students to access. Every webpage encouraged students with disabilities to contact the Disability Team to discuss support needs. Each webpage also provided examples of disabilities, with four (HEI 1, 3, 4 and 7) providing a specific
section with information about SpLD. However it was very apparent available information was variable and overall the limited guidance offered was generic, with a clear focus on support for any student with a disability in an academic setting.

Eight of the webpages (HEIs, 3, 4, 5, 6, 7, 8, 9, and 10) mentioned the importance of confidentiality and the need for consent from students with disabilities for support needs to be shared. This was in contrast to only one respondent specifically confirming consent was required before information about student support recommendations was disseminated (section 4.9). Two webpages (HEIs 2 and 10) confirmed only information regarding reasonable adjustment recommendations would be shared. Thus disability specific information was not disclosed. However where details about the processes of sharing information were available, this related to sharing information with academic staff only, practice settings were not specifically mentioned.

Reasonable adjustment was mentioned by six HEIs (2, 3, 4, 5, 8 and 10) on their webpages and/or within their policies. Four HEIs (2, 5, 8, and 10) described reasonable adjustments as support but there were no more detailed definitions located on webpages or within the policies or procedures that were accessed. All ten HEIs listed examples of support strategies that could be offered to students with disabilities in an academic setting. Again the amount and level of detail varied. Of the seven HEIs who participated in Phase one of the research, none provided examples or guidance relevant to the practice setting. However one HEI’s webpage (HEI 3) made reference to programme handbooks that would contain more specific detail. These documents could not be accessed online because they were only on the intranet. Despite requesting a copy, the document was not made available. Of the three HEIs (8, 9 and 10) that had not participated in the other aspects of this research, one (HEI 8) provided guidance on accessible placements and clearly articulated that practice-based staff were responsible for reasonable adjustments for students with disabilities while in practice.
Four webpages (HEIs 2, 8, 9 and 10) provided staff guidance regarding support for students with disabilities but only HEI 2 had engaged in Phase one of the data collection. Despite respondents (HEIs 1 and 4) reporting guidelines were online, staff guidance could not be located on the webpages. Therefore it was presumed that the guidelines were available to respondents in hardcopy or on the intranet and therefore were not accessible publically. However it was not possible to confirm such speculative hypotheses.

Information about accessibility and inclusion in learning and teaching were included on five webpages (HEIs 2, 7, 8, 9 and 10) but references to associated policies were only evident on two webpages (HEIs 2 and 10). However although HEI 4 did not explicitly provide detail about accessibility and inclusion, the policy about inclusion was mentioned on the webpage.

All ten HEIs referred to Codes of Student Conduct/Student Discipline which were applicable to all students at the respective HEIs. In keeping with NMC requirements to have Fitness to Practise Policies and procedures (NMC, 2017), which includes information about supporting students with disabilities, all HEIs had policies and/or procedures pertaining to Good Health and Good Character for their pre-registration nursing programmes. Two HEIs (1 and 3) incorporated Fitness to Practise procedure/regulations as part of their Codes of Student Conduct/Student Discipline while the remaining eight had separate Fitness to Practise policies/procedures/regulations. The above documents were not directly accessed for HEIs 1 and 7 as they were located on the intranet.

Only two respondents made reference to external documents that they used to guide decisions about support for students with disabilities: one referred to the Equality Act (HEI 3) and the other, RCN publications (HEI 5). As respondents specifically mentioned these documents, they were included in the analysis. The Equality Act (2010) details the legal obligation to prevent discrimination and promote inclusivity and equal opportunity for people with disabilities, one of nine protected characteristics. Three requirements are outlined in the Equality Act
(2010) under the duty to reduce significant disadvantage experienced by a person with a disability compared with people without disability in a given situation:

1. The way things are actioned should be altered to minimise the disadvantage (e.g. change practice)
2. The physical environment should be amended (e.g. ramp access provided)
3. Auxiliary aids (e.g. loop system or assistive computer software) should be provided to reduce/remove the disadvantage experienced by a person with a disability

The requirements should be met where considered reasonable to do so. The Act does not define the term ‘reasonable adjustment’ *per se*, nor provide guidance about how to identify or implement reasonable adjustments. However consent is only mentioned from the perspective of gaining permission for adjustments, not from the perspective of sharing information about students’ disabilities.

The RCN publications offered guidance for managers and practitioners, and a toolkit for nursing staff to raise awareness of dyslexia, dyspraxia and dyscalculia and the legal and professional responsibilities of supporting people with SpLD (Cowen, 2010a; Cowen, 2010b). Gaining consent to share information was not mentioned but a culture of inclusion was mentioned. The guidance provided suggested support strategies to be used by people with SpLDs and peers supporting students and colleagues with disabilities. However, within both documents, it was acknowledged there was no legal definition of the term reasonable adjustment. The crucial point highlighted was that individuals were required to take decisions about what was ‘reasonable’, and must be able to defend their decision. The Legislation and RCN publications are credible documents although as the RCN guidance was published in 2010, there is a need for the documents to be reviewed to ensure the content is up-to-date.
4.15 ‘Unreasonable’ Requests for Reasonable Adjustments

Recommendations for reasonable adjustments must be considered prior to decisions being made about their implementation. Therefore in the survey respondents were asked if they were aware of any requests for adjustments in academic- or practice- settings being regarded as ‘unreasonable’, and if possible to provide examples.

Two respondents (HEIs 2 and 7) reported they had never experienced a situation where a request for reasonable adjustments was regarded as unreasonable in academic or practice settings. However five HEI respondents (1, 3, 4, 5 and 6) were aware of situations where requests for adjustments were regarded as ‘unreasonable’. An example offered as explanation by three respondents (HEIs 1, 5 and 6) related to students demonstrating numeracy which is part of the Essential Skill Clusters in the Standards for Pre-Registration Nursing Education (NMC, 2010). Although respondents understood that the use of calculators was permitted, they reported regular debates between colleagues about the use of calculators to support numeracy in academic and practice settings. In particular concerns were raised in relation to maintaining nursing education standards and preserving patient safety. It appeared that discussions about the reasonableness of the requests for calculator support were instigated through differences in perceptions. Some academics and mentors misinterpreted from NMC guidance (NMC Circular 03/2008) that nurses should be able to complete calculations without the use of a calculator. Thus the use of the calculator was not deemed a reasonable adjustment by some, despite calculator use being permitted.

Some situations where extra time was requested were judged unreasonable. The HEI 4 respondent reported a difference in opinion between the DA and ADC with regards to the recommendation for extra time during an exam for a student with diabetes in case the student experienced hypoglycaemia. The ADC did not deem the justification for the extra time sound because the student was assessed as being
able to manage the condition and reportedly had ‘stable’ glycaemic control. The recommendation was considered ‘unreasonable’.

Requests for extra time for clinical exams (Objective Structured Clinical Examinations [OSCEs]) also generated much debate due to different perspectives. While one respondent (HEI 6) reported extra time was not regarded as reasonable due to expectations that clinical assessments should be completed in a timely manner, another respondent (HEI 3) detailed students with disabilities could access extra time for OSCEs. However students were expected to make it known to academic staff prior to the OSCE if they wished to take the option for extra time or opt out of this reasonable adjustment.

Other examples of requests for support considered ‘unreasonable’ included a request from a student with mobility issues to have the same practice placement allocations and off duty as a friend who could drive. This was so that the students could travel together. As an alternative to the request, support was offered through the allocation of placements within a short radius from the student’s home to minimise travel and impact caused by the mobility issues. While requests for specific shift patterns were reportedly supported in some practice areas, demands for rest periods every 90 minutes and access to a couch to lie on were argued as ‘unreasonable’ in an academic and practice setting. Not only would this arrangement potentially impact on timetabling, learning and teaching opportunities, and patient care, the respondent suggested that consideration should have been given to the student’s fitness to practise. Discrepancies were also evident between opinions regarding whether students with disabilities should be rostered for night duty: two respondents (HEIs 5 and 6) insisted that this was an NMC requirement while another respondent (HEI 7) suggested students only required awareness of 24/7 care.

Students’ expectations reportedly led to situations where support requests were ‘unreasonable’. An example one respondent (HEI 6) provided referred to access to support services e.g. proof reading, via scheduled appointments. Situations were
reported of students expecting the support services to be readily available at short notice, without a scheduled appointment. It was also reported students with disabilities had requested additional support above the pre-determined reasonable adjustments. Examples were outlined where students requested excessive amounts of extra time and extensions to assessment deadlines. While each of the examples were thought to be ‘unreasonable’, the respondent reported that debate and inconsistency in the support made available by staff ensued, a fact that reinforced students’ unrealistic expectations of what merited reasonable adjustment.

Resourcing was also raised as a reason why requests for support were deemed ‘unreasonable’. The costs of providing equipment were considered in decisions about reasonableness. Two respondents (HEI 1 and HEI 7) provided examples of students with hearing impairments who had amplified stethoscopes and text telephones recommended as reasonable adjustments. While the amplified stethoscopes were available on loan, the availability of text phones was not guaranteed due to resource implications for practice, especially if the student’s practice experience was very short. Therefore the recommendation for a text telephone was considered ‘unreasonable’.

Where requests for support were not regarded as reasonable, respondents reported alternative support measures were sought to meet students’ needs. Without exception, respondents who had experienced situations where support requests could not be met outlined that decisions were discussed with students and support recommendations reviewed to identify alternative support strategies. For example (HEI 5) while regular breaks every 90 minutes were deemed impractical particularly in practice, close working with the mentor ensured students were offered shorter shift patterns, an agreement was implemented to intersperse working days with days off and regular breaks were scheduled.

A few respondents (HEIs 1, 3, 5 and 6) highlighted concerns about supporting students to meet NMC competency standards (NMC, 2010). For example, certain clinical activities including medicine administration were believed to be time-
limited and therefore extra time to support students may be ‘unreasonable’ in situations when timing was important. There were also suggestions that support measures become unreasonable when mentors make every effort to support students who clearly were struggling to meet the required standards despite the reasonable adjustments already implemented. The priority was to ensure students’ expectations were managed so the programme and NMC requirements were met, while also promoting student wellbeing. Thus, honesty and transparency were encouraged. Where necessary, time out from studies was considered and students were counselled regarding their ability to remain on the course. In some cases students opted to leave the programme. One respondent (HEI 6) acknowledged Fitness to Practise meetings would be held if necessary to establish whether a student with a disability could continue on the programme, particularly when the student could not achieve competence even with implemented support measures.

4.16 Evaluation of the Effectiveness of Reasonable Adjustments

The need to evaluate the effectiveness of reasonable adjustments to support students with disabilities was recognised by all respondents. Despite this, only three respondents stated they completed formal evaluations in their HEIs (1, 3 and 4). Table 4.8 details the various people involved in formal evaluation of reasonable adjustments by educational setting.

Table 4.8: People involved in evaluation of Reasonable Adjustments (by setting)

<table>
<thead>
<tr>
<th>Role</th>
<th>Academic Setting</th>
<th>Practice Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEI Disability Advisor</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ADC</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>AA</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Programme Lead</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Occupational Health (OH)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Student</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Mentor</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Practice Manager (e.g.)</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Senior Charge Nurse</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
For the three HEIs that formally evaluated reasonable adjustments the ADC, or DA in the case of the HEI that did not have an ADC role, were involved in the evaluation regardless of the education setting. Students and AAs also participated in evaluations of reasonable adjustments, but in HEI 1 students were only involved in evaluations related to academic settings. As expected, two respondents (HEI 3 and 4) included mentors and practice managers in support evaluations for the practice setting. One HEI identified OH may be involved in evaluations of support, but only for reasonable adjustments in the academic setting. This was an interesting finding since it was anticipated that OH would offer advice regarding support in practice, an employment environment.

Respondents were asked to explain the purpose of evaluating the effectiveness of reasonable adjustments. Only two respondents (HEI 3 and 4) offered explanations. Evaluations were used to ensure support was effectively meeting students’ needs throughout the programme without compromising professional standards. Thus recommended support could be altered where necessary, and any requests regarded as unreasonable were addressed through alternative support strategies. In a free-text response one respondent (HEI 3) also stated it was essential that attitudes and expectations of students and staff supporting students had to be managed to ensure the student experience was a true representation of what was expected from student nurses, without excessive levels of support. Expectations of student performance and levels of support had to be reasonable to promote equity and fairness.

Of the five respondents who did not undertake formal evaluation, one was from the same HEI as a respondent who had reported formal evaluation. However on attempting to clarify the different perspectives, one of the respondents had acknowledged in their open response to the question that the evaluation was not formal but was completed as part of student performance monitoring. The other respondent did not offer any additional explanation to support their response. However the responses have been recorded as reported.
Four respondents (HEIs 2, 5, 6 and 7) asserted informal evaluation of the effectiveness of reasonable adjustments was undertaken. This was facilitated through students having regular contact with AAs to discuss progression on the programme, meeting with the ADC in some situations, and mentors’ assessments and evaluation of practice learning. Where students were progressing satisfactorily, this was deemed to indicate support was effective. In two HEIs (5 and 6) any identified causes for concern were reported to the ADC, and DA, if necessary.

4.17 Summary
Using graphs and tables and explanatory text, this chapter has detailed findings from the survey and documentary analysis completed for phase one of the study. The challenges associated with data collection were compounded by the reported difficulties identifying and accessing respondents with the information required for the survey as well as willingness to share existing policies, procedures and guidelines. Despite the acknowledged limitations regarding the incompleteness of the data set, given it represents only 39% of the student population, the findings clearly illustrated the diversity in students numbers across pre-registration nursing education programmes in Scotland as well as the disproportionate share of students with disabilities within the different HEIs. It was obvious from the data that the range of students with disabilities did not correspond to the size of each HEI’s cohort. The reason for the discrepancy is unknown.

With the exception of one respondent, all respondents held multiple academic roles and had direct responsibilities for supporting students with various disabilities, although the vast majority of students had a SpLD. Each HEI had recognised processes for supporting students to disclose their disability and it was expected students would disclose their disability and/or support needs to academic and practice-based staff. While the majority of students disclosed via their UCAS application and self-declared on admission to their programme of study, disclosure
also occurred in other ways including in response to difficulties experienced with academic work and in practice settings. Following disclosure and with students’ consent, circulation of agreed support strategies from the Disability Service, were disseminated to academic staff. Different modes of communication were used by most HEIs to share information about student support measures. In particular, shared computer drives were employed in five HEIs. However, concerns were raised by respondents in the survey that there was a potential for students’ needs not to be met if, for example, academic staff did not engage with the shared drive and students did not proactively disclose their support requirements to academic staff.

The findings from the survey and documentary analysis plainly highlight that reasonable adjustment recommendations were focussed on support in the academic setting, with few respondents evidencing any consideration to what support measures may be required in the practice setting. While a variety of reasonable adjustments were recognised as available, there were distinct differences regarding the adjustments available across academic and practice settings and between HEIs. The provision of reasonable adjustments in academic settings was believed to be more straightforward than in diverse practice settings. Therefore while a wider range of reasonable adjustments were identified for the practice setting, less of the adjustments were likely to be available to students.

The ADCs and DAs were key roles in deciding what reasonable adjustments could be supported, although only a few ADCs actively reviewed and amended support recommendations despite all respondents being aware that most recommendations from DA focussed on support in the academic setting rather than the practice setting. Thus some recommendations were unsuitable. Other staff were included in discussions about support at times although to a lesser extent than ADCs, and again the focus was mainly support for academic settings. Although efforts were made to facilitate reasonable adjustments, where requests were deemed unreasonable alternative support measures were considered.
There was obvious variability in available reasonable adjustments across HEIs, with evidence of disputes between HEI staff resulting in inconsistent support for students. One of the reasons for this variation related to perceptions and understanding of NMC requirements. Consequently there were dissimilar expectations and discrepancies in decisions about the types of support that were judged to be reasonable. A key finding related to the need to manage expectations and remain realistic about what support was offered in different contexts. Resources, environment, communication and attitudes were highlighted as factors that influence the implementation of reasonable adjustments.

Ideally decisions about the reasonableness should be based on clear, specific guidance developed from robust evaluations of support in different contexts. All HEIs had access to generic guidance regarding disability support but there was very limited focussed guidance available to support decisions about reasonable adjustments for pre-registration nursing students, particularly in practice. While respondents were aware of the requirement for students to be of good health and good character, which linked to fitness to practise, no respondents specifically referred to guidance from the NMC and only one respondent referred to guidance from the RCN. Despite every HEI having fitness to practise policies, procedures or regulations, only one respondent identified their HEI’s Fitness to Practise policy as a potential resource to help determine whether a student receiving support who was struggling to achieve the necessary educational standards was suitable to progress on their programme. Despite awareness of the benefits of evaluation, the effectiveness of reasonable adjustments was rarely formally evaluated. Where formal evaluations were completed, ADCs, AAs and students were involved. Other academic or practice-based staff were also involved in the process depending on where the reasonable adjustment was implemented and whether their input was sought. Otherwise for the majority of students support was not reviewed: it was assumed to be beneficial and effective because students continued to progress and many completed their programmes of study.
Having established a baseline about student nurses with disabilities in Scotland and the interventions and actions instigated by HEIs to make reasonable adjustments to support students in academic and practice settings, the next chapter - Chapter 5 – will provide an in-depth examination the findings from Phase two of the study which was concerned with participants’ experiences and perspectives of reasonable adjustments to support Scottish pre-registration nursing students.
Chapter 5: Findings – Phase Two

5.1 Introduction

In this chapter findings from the data gathered during the focus groups and individual interviews to establish participants’ experiences and perspectives of supporting pre-registration nursing students with disabilities are presented. Twenty one registered nurses (RN) with five to 36 years of nursing experience participated in phase two of the study. However, only two of this group of participants also contributed to phase one. Two participants had entries on both the adult and children’s nursing registers; eight were RN (adult), 10 RN (Mental Health), and one RN (Learning Disabilities). Fourteen of the 21 participants had NMC recorded teaching qualifications. The participants’ experience within pre-registration nursing education roles ranged from six months to 33 years. Twelve were lecturers, eight Practice Education Facilitators (PEFs) and one had a joint lecturer/PEF role. Six participants were Academic Disability Coordinators (ADCs) and three had specific practice education link roles.

Data presented in this chapter are based on my analysis of the transcripts using the six phases of thematic analysis (Braun & Clark, 2006; Braun & Clark, 2013), outlined in Chapter 3 (section 3.10.2). During the phases of analysis it was difficult to determine a definitive definition of the term ‘reasonable adjustment’. I had hoped that if a definition could be reached from the participants’ contributions, it would provide clarity about the support offered to student nurses with disabilities. However while trying to identify themes emerging from the data it was evident the information was messy because there were multiple dimensions to consider with several links across and between themes and sub-themes (see figure 5.1 – Thematic map)
On reflection, and through discussion with my supervisors, I realised that the explanation for this complexity was that reasonable adjustments are akin to the notion of a wicked problem.

Wicked problems are complex and difficult entities to solve due to their recalcitrant nature, and because they have no right or wrong answer they have no definition of success (Grint, 2008). It was apparent throughout data collection that reasonable

23 Bold black boxes and arrows at centre of map detail research topic and main thematic areas. Blue boxes and arrows represent subthemes that contributed to emergent themes. Grey boxes and lines specify factors mentioned in data. Green dotted lines show the various links between factors and illustrate the complexity of reasonable adjustments.
adjustment is a complex concept because decisions about what is ‘reasonable’ are subjective and influenced by expectations, experiences and perspectives, as well as the context. Indeed the problem is never solved. Each new situation introduces other problems: new people with different perspectives in new environments offering other suggested solutions, mainly based on limited knowledge and understanding of the impact of disabilities on an individual and how the impact can be minimised. Hence ambiguity and uncertainty about reasonable adjustments and effective support persist.

Having reached the realisation about the ‘wickedness’ of reasonable adjustments, four major themes were detected from the data:

i. **Reasonable adjustments: a wicked problem.** Two subthemes were identified:
   - ‘Levelling the Playing Field’ - relates to the drive to make all things equal and fair for students with disabilities through the provision of support.
   - ‘Boundaries and Limits’ - reflects the boundedness of the concept ‘reasonable’ and the limits imposed by attitudes and understanding.

ii. **The influence of context: location and status.** This theme refers to two specific aspects of context:
   - ‘the educational setting’ or location, affects the level and type of support offered to student nurses with disabilities.
   - ‘Differences due to status’ concerns the impact of student status compared with employee status on reasonable adjustment availability and performance expectations.

iii. **To disclose or not disclose?** People with disabilities are expected to inform others about their disability and required support measures to minimise any disadvantage experienced through their disability. Quite clearly the data
established that decisions about disclosure were significant and would have consequences.

iv. **Safety first.** Throughout the data participants were adamant safety was the primary concern in every situation. However while the safety of students with disabilities was considered, patient safety took priority irrespective of any requests for reasonable adjustments for students with disabilities.

Although four themes emerged, it was very obvious that the themes were interrelated, and indeed the first theme *Reasonable Adjustments: a wicked problem* was an all-encompassing theme. The relationship between the themes is illustrated in figure 5.2

**Figure 5.2 Emergent themes**

![Diagram](image)

The following sections present the findings from the phase two data which demonstrates the wicked nature of reasonable adjustments. Cognisant of the
overlap between the themes, with the exception of Safety first, which is threaded throughout the discussion, the other three themes are discussed in turn. Data extracts, in the form of verbatim quotes from the participants, are included within the text to underpin and reinforce the analysis and resulting themes, and to demonstrate the importance of the topics to the participants. Each quote is aligned to the relevant participant’s identification number, denoted by (P. [No.]) where P represents participant and the number discriminates between different people. For example, (P. 1) represents participant 1. The identification of participants has been rendered deliberately vague in order to protect their identity. Given there are relatively few people in the ADC and PEF posts represented in this study, to use a more delineated coding system could potentially compromise a participant’s anonymity.

5.2 Reasonable Adjustments: a Wicked Problem

The predominant theme, Reasonable Adjustments: a Wicked Problem, was felt to capture the fact that reasonable adjustments are challenging to define and essentially difficult to solve. When asked to define reasonable adjustment, contradictory responses were given. A few participants readily suggested definitions, which mainly alluded to the notion of support:

“It’s some sort of supportive measure.” (P. 2)

“Support mechanisms to enable individuals the same opportunity to meet the requirements of the programme.” (P. 11)

“...supporting students in achieving competencies within their placements.” (P.17)

Interestingly, two participants (P. 17 and P. 21) concentrated on support within practice environments when defining reasonable adjustments, while another (P. 11) specified the support should be designed to meet all programme requirements, and thus took a more balanced view regarding how such students could attain the
academic and practice based outcome required for NMC registration. This emphasis on practice based learning was potentially emergent due to P. 17 and P. 21 both having roles directly responsible for supporting students in practice, whereas P. 11 was an ADC so therefore gave consideration to supporting students with disabilities in both settings.

The concept for the theme safety first initially arose when one definition highlighted a link between reasonable adjustments and safety of others (staff and patients) as well as the safety of students with the disabilities:

“reasonable adjustment is to help [students] do the job that they do without ...impacting on others ...keeping them safe in practice.” (P. 21)

The majority of participants acknowledged that articulating a definition was challenging:

“it’s ill-defined” (P. 9)

“...a very common difficulty about figuring out what does it mean?” (P. 10)

“there seems to be a range of opinions as to what is reasonable...” (P.14)

“I think it’s difficult to define” (P. 21)

Overall the lack of explicit understanding was attributed to nebulous definitions of reasonable adjustment. This contributed to a series of disputes associated with establishing what was reasonable. For example, two participants suggested there was conflict between the legislation and professional requirements:

“it’s quite difficult, because I think the law doesn’t always meet ...with our professional body.” (P. 6)

“...because we have to fit in with the Equality Act, there are issues around understanding where reasonable becomes unreasonable...for nursing practice” (P. 9)
Indeed participants recognised that a number of influencing factors including attitudes and values, context, and interpretations of the legislation and professional regulations compounded the challenge to provide a definition. Undoubtedly the ambiguity with regards to the meaning of reasonable adjustment stems from several factors which further reinforced the notion that reasonable adjustment is a wicked problem, a proposition that will be dissected and examined in more detail in Chapter 6 (discussion).

The data gathered from the participants’ efforts to describe reasonable adjustments revealed two interrelated subthemes *Levelling the Playing Field* and *Boundaries and Limits*.

5.2.1 Levelling the Playing Field

When participants were initially asked to define reasonable adjustments, the varying definitions and descriptions offered, demonstrated considerable diversity in their respective knowledge levels and opinions. One participant’s definition equated reasonable adjustments to the notion of equal opportunities, which mirrors the philosophy underpinning the Equality Act (2010):

“it’s something that’s put in place to almost cancel out the disability of the student ...so that they are not disadvantaged in any way. It’s not to give them an advantage at all; it’s just to cancel out the disadvantage they’ve got.” (P. 4)

Thus the idea of equality and fairness underpinned the need to enable students to achieve both NMC pre-registration nursing competencies and HEI award requirements via additional support to remove any disadvantage. Several participants alluded to bringing students with and without disabilities up to the same level:

“reasonable adjustment is about ...at the same level” (P. 19)

“Reasonable adjustments ...like levelling all in the playing fields” (P. 13)
“the adjustment will ... bring somebody to a perceived level alongside other people who do not have disabilities and do not require adjustment.” (P. 7)

“to allow [a student] to participate ... on an equal playing field with other students who ... don’t have that particular issue” (P. 3)

“supportive measures ... to help [student nurses] ... be on a level playing field ... in the same way as [those who] don’t have a disability” (P. 2)

In keeping with the idea of making all things equal, one person described a visual representation to explore their understanding of reasonable adjustment:

“I always see it as a little platform, and the platform brings them to the same level as people without disability” (P. 6)

Accordingly the notion of balanced, equal and fair opportunities was explicit, and was conceptualised as levelling the playing field.

While some participants clearly aligned reasonable adjustments with support, others struggled with the concept and an understanding of what was ‘reasonable’. Diverse interpretations of NMC standards and lack of clarity regarding the reasonableness of adjustments to support students to demonstrate competence was relayed by participants. One example related to numeracy and the use of calculators.

“NMC competency standards and the standard for medicine management ... they are as clear as mud! ... on the one hand absolutely students do need to be able to ... demonstrate arithmetic skills but also it does say that they have to be able to use a calculator, so it’s difficult to interpret that very clearly.” (P. 1)

The NMC (2010) included the use of a calculator as part of the competence a student must demonstrate but also stipulated that calculators were not a replacement for knowledge and skills. Some interpretations of the numeracy requirements have resulted in students having to evidence their ability to undertake calculations manually, without a calculator, even when the students’ reasonable adjustment recommendations include calculator use:

“[it was] suggested that [student nurses] could use a calculator for drug calculations and their mentors would say, ‘no we all have to
do them manually’ and [I] would have to explain, this student has difficulty, but she manages really well with a calculator. That’s a reasonable adjustment.” (P. 10)

Arguably, the focus should be on levelling the playing field by allowing students to use calculators, as needed. This would ensure the correct calculations were completed so that patient safety was maintained through prevention of the risk of calculation errors.

While participants were eager to provide equal and fair opportunities, the doubt experienced by some about how best to facilitate appropriate support was highlighted:

“What’s a reasonable adjustment? it would be nice if somebody gave us all a list” (P. 16)

This response signified the ‘wicked’ nature of the term reasonable adjustment. Although this reply was not a definition, it could be argued it was a suggestion of how to raise awareness of the myriad of reasonable adjustments that may be available. Yet a list of recommendations without explanation was unhelpful:

“in our own guidance [it says] ... ‘marker should take account of any other issues attributed to a specific learning disability’. Well, what might they be? I don’t know” (P.10)

The participant revealed that despite guidance being available, there was a perceived lack of direction and explanation regarding potential issues which may be experienced by a student with a specific learning difficulty (SpLD), and the types of support that could be ‘reasonably’ offered to provide equal opportunity.

Other participants were also keen to emphasise the need to facilitate equal opportunities, and to ensure students’ learning experiences were not compromised by inaccurate assumptions about risks to safety. A discussion arose in one focus group from a comment about fairness with regards to perceived safety risks from misspelling compared with misunderstanding:

“If you’re writing about hypertension and ... it’s hyperthyroidism, that’s when it becomes problematic. But if it’s hypertension and they’ve put an ‘i’ instead of an ‘y’ in the hyper...it’s not unsafe.” (P. 11)
Thus the participant was advocating the impact of disabilities required to be judged in context to safeguard students from being incorrectly excluded from learning opportunities, like record keeping. Another participant was particularly frustrated by the apparent double standards pertaining to record keeping by students with dyslexia compared with mentors with poor grammar and spelling:

“...if a student can’t spell properly, the dyslexia stuff, and [mentors] just don’t see that, they just think about record keeping ...I would question [mentors’] general writing ability and grammar and spelling and think: ‘Well, maybe look at themselves, before they start making judgements on students.’” (P. 21)

Consequently if staff do not have sufficient knowledge to recognise what they are expected to take account of with regards to the impact of a disability, students will not be offered adequate, appropriate or even fair levels/types of support. Hence the opportunity for levelling the playing field would be lost.

Nevertheless, while attempts to define the concept of reasonable adjustment were offered and difficulties were stressed, the discussions clearly highlighted recognition that reasonable adjustments cannot and should not be indeterminate. Thus, inevitably boundaries and limits must be imposed. However this too serves to reinforce the wickedness of the problem as the bounded nature of the term ‘reasonable’ is impossible to capture without a clear definition. Hence, practitioners were effectively caught between a rock and a hard place, wanting to do their best for students but not having any clear parameters to guide their actions or decisions.

5.2.2 Boundaries and Limits

The boundedness of reasonable adjustments was acknowledged by several participants. Although the terms boundaries and limits were not explicitly stated by all, the notion that there were constraints on what reasonable adjustments could be offered within nursing, and whether the support would enable a student to meet the programme requirements, was clearly implied by several participants:
“none of the standards have a time caveat element to it. However it’s implicit within [the competencies] that it is done within ‘reasonable’ time.” (P. 3)

“not everything can be adjusted to suit.” (P. 5)

“we’re measuring competencies, and ... the Nursing and Midwifery Council does state, although they don’t give us a huge amount of direction, ...we cannot adjust the competencies.” (P. 6)

“The word reasonable tells you that there’s limits to what you can do and what you can achieve by putting in adjustments.” (P. 13)

“Some competencies have to be met within a certain timeframe for the nature of the role ... for example, a medication round.” (P. 20)

The participants strongly reflected that patient care, including patient safety, would always take priority and therefore may influence the level and type of available support:

“the students’ needs are maybe sometimes not the priority.” (P. 15)

“If patient care starts to be affected ...that’s just a no-no. You couldn’t have that.” (P. 16)

Indeed the impact on care delivery of facilitating student support can result in the support being deemed unreasonable:

“if a student’s reasonable adjustments are so heavy that the mentor is spending an inordinate amount of time with the student putting these in place, they are not delivering client care ...there is a tension there, ...spending all my time supporting the student and I can’t do my work because of it. This is unreasonable.” (P. 3)

Participants’ opinions about how students were expected to demonstrate competence to meet NMC requirements were also linked to safety and reinforced that attitudes can impose boundaries and limits. Three participants brought up potential safety issues associated with students with hearing impairment. In one situation a student reportedly refused to use equipment to assist with answering the telephone, which was a recommended reasonable adjustment. It was clear from
the information provided there were concerns about the alleged risks that could have arisen, particularly in emergency situations. The level of apprehension was associated with the participants’ perceptions of the students’ abilities (or inability) to act and respond appropriately.

“If they were profoundly deaf, then is that an appropriate person to be in a ward in an emergency situation?” (P. 5)

“a student ...with significant hearing problems, I was pretty adamant ...she was [not] going to cope in practice, ...if an emergency buzzer goes, if the phone rings, this student was refusing to answer the phones in practice because she couldn’t hear and didn’t think that was a problem and I struggled with that because I thought: ‘Well I think that is a problem’.” (P. 21)

One of the main issues raised related to the impact of hearing impairment on the students’ demonstration of competence especially as the student refused to engage with the recommended support:

“[the student] ...wouldn’t use the ‘phone piece, we’re like: ‘Well how can she meet the NMC competencies?’ but actually ...when we looked at [NMC standards] ...there was nothing about answering ‘phones ...another loop hole” (P. 21)

Thus the participants’ attitudes and perceptions of the NMC Standards introduced limits to the expected level of competence that would be achieved by students with hearing impairment. However as the use of a telephone was not explicitly detailed as part of the NMC standards, the student with hearing impairment chose never to use the telephone in practice but passed the communication requirements of various placement learning experiences. The question about how the person would manage once a registered nurse who needed to use the telephone as part of their role remained unanswered.

The examples given reinforce the fact that attitudes and perceptions may colour people’s opinions regarding achievement of competencies, risks to safety and how these can be managed. However, contrary to the concerns, another participant reported trepidations were often unfounded particularly when risk assessments were completed and contingency planning undertaken.
“I remember one student …it being a big issue because she would not have heard if someone had approached her unless she could see them; and the clinical area was a bit concerned that would put her at a greater personal risk. It didn’t transpire to be the case …it didn’t turn out to be that great a risk.” (P. 12)

The data suggested boundaries and limits changed as students progressed through their education. Thus, it was implied that as mentors’ expectations regarding independent practice increased as students became more senior, they were more likely to seek advice about supporting such students,

“as the essential skills …increase and the level of responsibility and accountability and autonomy starts to step up and [students] start to gain that autonomous role, sometimes the queries …about [expectations and support] then step in.” (P. 6)

In fact, several participants alluded to the idea that levels of support may need to be reduced as students proceeded:

“the further on a student is on the course the more difficult it becomes because …if [the mentors] need to give this level of support to a third year who has only got one placement left, how are [the students] going to manage as an independent staff nurse” (P. 3)

“we gave the student quite a high level of support in practice …really heavily supported [in] year one. Year two, pretty heavily supported. Year three we …have to wean them off” (P. 10)

In contrast, another participant captured the essence of the fluidity of reasonable adjustments, suggesting support may change throughout education and employment but not necessarily implying that support would be weaned.

“Reasonable adjustment has to stay reasonable. So while the competencies are being met, the reasonable adjustments might change throughout someone’s nursing course or their nursing career but it still has to remain reasonable” (P. 19)

The importance of being person-centred and ensuring suggested reasonable adjustments were individualised to support students with disabilities to meet the programme and NMC requirements was also raised:
“it will be different for every student and sometimes students need it, sometimes they don’t” (P. 4)

“we can ...become more responsive ...to see the student as an individual with a problem that we can enable them to get over” (P. 14)

Thus while it was agreed there were limits to the support that can be offered, the vagueness about what was ‘reasonable’ remained. There was clear evidence of attitude differences regarding whether levels of support should be lessened or altered during a student’s education and career. Although the participants’ had varying perspectives about levels and types of support, few participants referred to the need to review reasonable adjustments during a programme of study. The onus was on the student to proactively seek advice and further support if their existing support mechanisms were ineffective:

“They see us in the first year, reasonable adjustments are put in place and very often we don’t see them again. They are not called back; it’s up to them to come back.” (P. 4)

The variety of opinions caused me to reflect on my own perspectives regarding the limits of reasonable adjustments as the following extract from my reflective diary highlights:

“The conversation about weaning reasonable adjustments during Focus Group 3 closely mirrored my perspective. Students may need note-takers initially but require to learn the skills to note-take for handovers for example, therefore this support strategy would be weaned. But having considered the discussion today [Focus Group 5], there is a definite difference between levels and types of support. There is a need to review support strategies depending on context; some strategies can be weaned as students develop their abilities to demonstrate competence e.g. note-taking, but other strategies may always be required e.g. assistive software for academic work and electronic record keeping in practice.”

(Reflective diary extract, 03/06/2016)

Continuing to focus on the limits of what is reasonable, the belief that support was bounded because the Standards for pre-registration nursing education (NMC, 2010) cannot be altered was reinforced in several discussions:
“often the competencies come into play ...as a standard by which we measure, and even with all these adjustments a student cannot meet that competency” (P. 3)

“even with the adjustment, which was quite extensive, the student could not meet the competencies required” (P. 6)

“...what [mentors] are looking for in terms of student competency is the same as any other student” (P. 9)

“what the NMC requires them to meet ... we have to abide by that or we would be falsely saying that students are fit for purpose and fit for practice.” (P. 12)

To demonstrate the limits, an experience was shared about a student with a disability who was unable to complete the programme despite reasonable adjustments being implemented:

“...because it’s nursing and the demands of working in a busy clinical area, she really didn’t cope all that well with it. ...in the end [she] had to go off programme because she wasn’t dealing with it.” (P. 8)

The extract highlighted despite the support offered, the student was unable to cope with practice demands. Consequently the competences required within a busy practice environment were not demonstrated by the student and thus NMC requirements were not met. Others concurred with this impression of there being limits. In fact the following tautological extract implied that support was limited because it needed to be fair without being extreme:

“Reasonable adjustment is about helping someone to do the job that they’re doing within reason.” (P. 21)

One of the main challenges highlighted was establishing what was reasonable given the lack of clarity and guidance about reasonable adjustments. Indeed there was apparent confusion regarding the purpose of reasonable adjustments and how, when or where they should be applied. For example, although the focus of this study pertained to students with disabilities, when asked for examples of reasonable adjustments, a participant suggested altered shift patterns to support a student with childcare issues.
“It was childcare and the ward made a reasonable adjustment so that she could be accommodated to meet her outcomes there.” (P. 18)

This stimulated considerable debate regarding what participants understood about reasonable adjustments such that one participant responded:

“it’s a reasonable thing to do but that’s ...out with my understanding of reasonable adjustment ...if you need a reasonable adjustment it’s because of a disability in some way” (P. 19)

Furthermore participants’ recognised adjustments to support childcare may not be available across all practice settings which could render the arrangement unreasonable:

“if [the student] went to another area ...[to] a team of a similar nature ...the [new] team may decide that’s not a reasonable adjustment” (P. 16)

Although this extract was made in reference to the discussion about childcare, the reality that there were different perspectives regarding what was or was not a reasonable adjustment applied to students with disabilities also.

To try to moderate the diverse perspectives held by mentors, one participant acknowledged their role in educating practice staff about implementing reasonable adjustments.

“Normally through discussion when you explain what reasonable adjustments are and what type of adjustments are necessary, you can usually convince them.” (P. 9)

Another participant also passionately defended their role supporting students with disabilities by raising awareness of reasonable adjustments and challenging the boundaries that may be in place:

“I think personally that part of my role is to push those boundaries as to what they expect is reasonable and what is reasonable.” (P. 14)

However at times there appeared to be some role tension for lecturers and mentors which may have caused them to cross role boundaries. Participants suggested they found it difficult to separate themselves from their caring qualities and therefore
offered pastoral support at times when they intended to provide academic support. Others became counsellors instead of directing students to counselling services:

“[we provide] emotional support rather than actual learning support (P. 15)

“you need to watch that you’re not taking that counselling role ...with the student ...you’re not there in that role. You’re there as a mentor” (P. 16)

“some of the mentors really struggle between caring for the person and assessing the person” (P. 7)

Indeed some lecturers and mentors reportedly offered exceptional levels of support which may have exceeded the boundaries and limits perceived by others, and consequently would be regarded by some as unfair and unreasonable.

Without clear boundaries delineated by a plain definition of reasonable adjustments support can evidently become unreasonable. Due to the lack of clarity and limited availability of specific guidance, as highlighted in Chapter 4 (section 4.13), there were suggestions that lack of knowledge about reasonable adjustments resulted in compensations:

“to make adjustments ...for a student sometimes it’s almost automatic that you move your expectations along with it ...we make allowances.” (P. 19)

“...we are tempted into making allowances in all domains on the basis of a disability.” (P. 10)

Worryingly, other participants indicated that once a student with a disability was accepted onto a pre-registration nursing programme they were duty bound to ensure the student succeeded. Thus by implication allowances were made to support students with disabilities during their studies:

“[mentors] really want the students to achieve...They bend over backwards to support their students” (P. 5)

“I felt very strongly that once we had accepted her [on the programme] we had a duty of care to her and we needed to do everything we could to ensure that she was successful” (P. 9)
However while another participant appeared to have a similar opinion, their focus on patient care highlighted the importance of safety first:

“If a student’s needs aren’t impacting on patient care in any way then the placement provider should provide every support that they can …” (P. 15)

These extracts suggested reasonable adjustments can be compensatory, thus levelling the playing field, but as a consequence of uncertainty about what was reasonable, support may be inconsistent and unfair.

Inconsistency and unfairness were also apparent at the other extreme. It was suggested that some practice staff could be particularly exacting:

“practice ...can be quite harsh and I don’t know that they mean it to be harsh, ...it’s just their own pre-conceived ideas of nursing for example ideas ...and expectations of what a nurse should be able to do” (P.21)

Again the impact of attitudes was raised. In fact, one participant proffered an example where practice staff did not think a student requiring additional support should have accessed the nursing programme because

“...the demand of the profession is such that we don’t have time to make reasonable adjustments." (P. 9)

In another example students with disabilities were seen as being positively discriminated against such that it was tantamount to cheating:

“there are still attitudes out there ... ‘that person got an extra half hour’ ...it’s a bit like cheating” (P. 15).

It was obvious from the data there were various interpretations of the term reasonable adjustment being applied both in theory and practice. Attitudes and values; and knowledge and understanding all influenced people’s decisions about what they considered a reasonable adjustment to be. While there was agreement about the need to offer support to provide equal and fair opportunities by levelling of the playing field for students with disabilities, the boundaries and limits were ambiguous.
5.3 The Influence of Context: location and status

The theme *The influence of context: location and status* emerged from the data due to participants’ references to the effect of the education location and the status of nursing students compared with employees. Participants continually mentioned the fact pre-registration nursing students have to complete a programme which comprises 50% theory and 50% practice. This translates to time spent in academic (HEI) and practice settings (hospital/community settings, or simulation laboratories) respectively. Consequently discussions about reasonable adjustments and the support available included the impact of the different settings on the availability of reasonable adjustments. Indeed, what may be regarded reasonable within academic settings, may not necessarily translate into practice arenas.

Participants also offered comparisons relating to students with disabilities and employees with disabilities. Many references were made to differences in support offered to pre-registration nursing students in practice compared to the support that was offered and made available to employees such as registered nurses. As outlined in section 5.2.2, participants’ perspectives about the levels and types of support were influenced by their attitudes and beliefs about disabilities and support measures as well as their understanding of the pre-registration nursing education standards. Thus, the two overarching contexts in which nursing education takes place clearly influenced the nature of support offered in pre-registration nursing education, a factor which further adds to the wicked nature of the problem and the overall outcome for students.

Based on the analysis two subthemes, *the educational setting* and *differences due to status* will now be discussed.

5.3.1 The Educational Setting

The two distinct educational settings where students learn their craft were resolutely highlighted by participants as factors influencing the types of reasonable
adjustments available to students with disabilities. One participant encapsulated this dichotomy facing education establishments commenting:

“what’s a reasonable adjustment in terms of what someone requires to be able to sit in an academic environment will be perhaps very different from what the adjustment would need to be for that individual in a clinical placement area.” (P. 12)

A sentiment echoed by others:

“there’s reasonable adjustment within an academic course in the University environment and there’s reasonable adjustment in practice.” (P. 21)

“some of the adjustments ...cannot happen practically in clinical practice.” (P. 6)

“some reasonable adjustments don’t translate to practice.” (P. 10)

In fact one participant captured the diversity of perspectives across and between settings:

“There seems to be a range of opinions as to what is reasonable, that’s the grey area ...a battle of what we would consider reasonable as to maybe what our practice colleagues would consider reasonable, or even some of our university colleagues.” (P. 14)

To illustrate the point, the support of a scribe was offered as an example of a reasonable adjustment available in the academic setting which would not be available in practice.

“They may have a scribe and a reader for assessments in the university however we don’t have scribes and readers in clinical practice.” (P. 6)

“I’ve never known a student to be offered a scribe in practice and I don’t know that I believe that’s a reasonable adjustment.” (P. 21)

The fact that there were differences in support between the two educational settings contradicts the notion of levelling the playing field. If students had difficulties writing for example, the difficulty existed irrespective of the setting. Thus the fact that a scribe was not available in practice illustrates support mechanisms
were bounded by context: reasonable in the academic context but unreasonable in practice.

Participants suggested the main issues regarding the identification of support and offering reasonable adjustments stem from nurses being risk averse:

“bureaucratic risk averse behaviours that ... all nurses probably have often comes to the fore.” (P. 9)

“It’s almost the worst-case scenario reaction I have first.” (P. 14)

Interestingly one participant suggested risk aversion was less evident in academic settings compared to practice settings because there were fewer perceived risks:

“students ... may find there are additional problems ... out in practice where the teams will maybe risk assess the situation and then be less than comfortable with that individual, whilst there may be no problems for them in the academic setting.” (P. 12)

Another participant shared an example of a suggested reasonable adjustment for a student which caused debate due to the potential impact on safety:

“being able to leave the room ... without giving a reason” (P. 4)

Arguably a student leaving a classroom may not have the same associated risk as a student leaving a practice setting when they should be involved in delivering care. However with reference to duty of care in both settings, it was argued that clarity was needed about expectations. While disclosure by a student of the specific reason for leaving a room may not be required, staff in both settings should be aware if a student had left an area due to being unwell because the student may need assistance. There also may be health and safety considerations, for example if a fire alarm sounded. Furthermore, patient care could be compromised if a student left a practice environment. Therefore the participant reasoned clear guidance should be included with the recommendations for required support to minimise any risks from misunderstanding surrounding responsibilities and to ensure safety first.

Discussions regarding differences between academic and practice settings were further developed to offer informal evaluations of the support available within the
different educational contexts. Participants’ agreed support and reasonable adjustments in academic settings were more readily available and easier to manage.

“Within the academic setting, [support is] ...pretty well sussed.” (P. 1)

“...dealt with reasonably well in a university setting” (P. 9)

“some things which are fairly straightforward to do, particularly in the university” (P. 10)

This argument augments the findings from phase one presented in Chapter 4 (sections 4.10 and 4.15) that most identified reasonable adjustments were readily available in academic settings, and it was less likely that requests for support would be regarded as unreasonable in HEIs.

Several participants offered comparisons between the academic and practice settings in accord with their experiences and perceptions:

“It does seem relatively clear as to how best to support the student because we work very closely with the university [disability] service. I think where the challenges are, are in placement.” (P. 1)

“I think that it’s easier for us as lecturers to make some of the changes which can’t be made within wards or are more difficult to make within clinical practice settings. [For example students] can be provided with different fonts or different [font] sizes.” (P. 15)

Both participants were lecturers who concurred reasonable adjustments were more challenging to implement in practice settings. Hence, it was also suggested that part of the difficulty associated with offering reasonable adjustments in practice was not knowing how students would cope with specific clinical demands:

“... it’s not until [students] are functioning ...in a clinical area that the impact of the disability will become apparent.” (P. 8)

As 50% of student learning is practice focussed, supported by mentors, then by implication, practice-based staff would arguably have more insight into managing the challenges of providing reasonable adjustments in practice. Participants reported disparate experiences and knowledge displayed by academic staff and mentors in relation to reasonable adjustments and supporting students with
disabilities. For example, it was implied academic staff were better prepared to support students with disabilities because they had more experience than mentors.

“The mentors probably feel unprepared for [supporting students], because they don't mentor all the time, so they're not getting that constant throughput of experience that the academics are getting.” (P. 7)

Another practice-based participant concurred, and asserted HEI-based staff were solely responsible for recommending reasonable adjustments for students with disabilities:

“the responsibility lies with ... the university” (P. 19)

Conversely, it was suggested some academic staff may not possess the perceived level of experience of supporting students with disabilities. Reportedly within some HEIs the responsibility for working with students with disabilities was left to an identified academic with a specific interest in supporting this student group:

“...everyone was happy for me to do it, [because they] don’t know anything about it.” (P. 10)

“other people step back ...they refer the student to the people that have interest and expertise ...they want to disengage anyway and they don’t have a full understanding.” (P. 6)

Moreover, while academic staff may facilitate reasonable adjustments in the academic setting, they were not fully aware, or cognisant of, what could be applied in practice to make appropriate recommendations regarding reasonable adjustments:

“we [lecturers] felt ill-equipped ...because there were so many things that you might not necessarily ...think about in the clinical environment” (P. 9)

“from the academic point of view ... students who declare get a lot. It’s the practice bit that I’m not sure we’ve got right.” (P. 10)

Within academic settings, advice and support offered by the centralised HEI Disability Services was deemed more accessible. Two focus groups (1 and 3) in particular recognised the process of identifying and managing reasonable
adjustments focussed on the academic context of pre-registration nursing education. In fact one participant admitted the Disability Service only made support recommendations for academic settings:

“the disability service don’t make recommendations for placement learning.” (P. 1)

Other participants highlighted the apparent imbalance in reasonable adjustment recommendations:

“disability services are very good at the advice on reasonable adjustments in an academic institution ...but not good at providing advice for the clinical environments.” (P. 9)

“disability services here in the university are very good. They are very thorough and usually support the students very well ...[its] when [students] go into practice that issues arise.” (P. 8)

Mindful that reasonable adjustments were often recommended solely for academic settings, there appeared to be an expectation students would be proactive about accessing and engaging with known support measures from the academic setting to apply them to the practice context.

“Those who have an adjustment for dyscalculia or dyslexia are usually well prepared. They have come from the theoretical input in the university and they take it with them as necessary” (P. 3)

“we leave it with the student because they are the best person to know ...whether [reasonable adjustments are] working or not” (P. 3)

“if a student was dyslexic and was coming to [placement] I would expect them to say, this is what I need in order to support me” (P. 16)

However some participants recognised this assumption may only apply to students with specific types of disabilities. For example those with SpLD could potentially apply some support measures used in HEI in practice e.g. phonetic spelling in notebooks or a reading ruler for dyslexia which reduces the impact of visual stress.

Nevertheless if students have not been exposed to practice settings before they may not be aware of what specific support needs they will require due to being
unaware of the potential impact of their disability in that arena. Moreover students may not have sufficient awareness to know what support measures were available and/or reasonable in a specific practice setting, as the participants were at pains to point out:

“how would a student know if they’ve not been involved in a situation before”? (P. 9)

“the student may not have an understanding of what actually has to take place in that clinical setting in terms of them achieving their outcomes.” (P. 12)

Hence, although students with disabilities may have reasonable adjustments that worked successfully in the academic setting, they may need advice and support regarding reasonable adjustments that may be available and effective in a practice setting.

Recognising the gap in advice about reasonable adjustments for practice settings, some respondents reported ADCs were expected to meet students to discuss support for the practice context. As registered nurses and lecturers, ADCs had knowledge and experience of academic and practice settings, as well as pre-registration programme requirements. Therefore ADCs were able to recommend reasonable adjustments for students with disabilities.

“[ADCs] invite the student to meet ...to discuss placement learning because the disability service doesn’t make recommendations for placement learning.” (P. 1)

“[ADCs] do the reasonable adjustments for placement.” (P. 4)

“[ADC] is a registered nurse who understands the competencies that [students] are required to meet.” (P. 6)

However it was not only ADCs who suggested reasonable adjustments to support students with disabilities in practice. Mentors, supported by PEFs, were also expected to facilitate appropriate learning opportunities with support for students to achieve their competencies in practice. As part of this, PEFs were responsible for raising mentors’ awareness of reasonable adjustments through education:
“[The PEF] role is generally to support the mentors that are supporting the students, but obviously reasonable adjustment does come into the remit as well.” (P. 7)

“[PEFs] discuss reasonable adjustment with mentors ensuring that they ask student nurses if they require reasonable adjustment.” (P. 20)

“discussing reasonable adjustment with mentors is for [PEFs] to make it clear that [support] is not adjusting the competency outcome ... but maybe adjusting the amount of support and the type of support they give a student.” (P.20)

Where advice and support recommendations from the HEI Disability Services were reported to consider the two different education contexts, some recommendations were deemed non-applicable in practice environments:

“Sometimes even our disability team will give adjustment advice and it will come to [PEFs] who are kind of practice linked and we will say, that won’t work in practice.” (P.6)

The example offered by one participant illustrated the point well. The case pertained to a recommendation to dim lighting to support a student with light sensitivity due to a visual condition. This recommendation was noted as unreasonable in a practice environment, particularly due to the potential safety implications associated with reduced lighting. However as an alternative and somewhat more reasonable suggestion, practice staff proposed the student could wear tinted lenses. It was evident from this experience the input of practice staff permitted an appropriate and fair alternative support mechanism to be offered to the student. This illustration reinforced the need to involve practice staff in the identification and implementation of reasonable adjustments to support students with disabilities in practice settings.

Several respondents acknowledged the necessity to promote partnership working when identifying and managing reasonable adjustments within pre-registration nursing education. This perspective was reflected by one participant who had recognised their own inability to offer advice about support in a particular practice
arena, coupled with an awareness of the HEI’s commitment to share responsibility
with practice partners:

“[I] contacted the clinicians who had had experience of risk
assessing and providing reasonable adjustments for a staff
member in practice. And I have to say the process was seamless.”
(P. 9)

Thus, the participant proposed collaborative working between HEI and practice
representatives was required

“...a joint assessment between disability services and the clinical
staff so that a plan can be drawn up of reasonable adjustments.
And I think that perhaps is the way to go.” (P. 9)

It was apparent from the data that collaboration was considered essential to the
management of support for students in both settings. However arguably to manage
this, partnerships required to be established not only between academic and
practice settings but also with students. Yet, to establish what worked in particular
situations required student engagement but it was acknowledged students might
only know what worked for them in a specific context by trying out and evaluating
the support recommendations:

“sometimes we get students assessed and they say: ‘I can’t do this
and I can’t do that and I need to do these shifts,’ and then the
student comes back and says: ‘Oh no, I can do the shifts and I
don’t want to do it that way, I want to do it this way’. ” (P. 21)

But at times students chose not to engage with the support:

“what becomes difficult with reasonable adjustments is ...when
the student themself doesn’t engage” (P. 3)

Lack of engagement may occur for a number of reasons related to student
confidence, experience and willingness to disclose a requirement for additional
support. Consequently non-engagement can impact on students’ performance and
progression. This introduced another level of complexity related to disclosure which
will be addressed further in section 5.4.

Findings from phase one identified some HEIs requested input from Occupational
Health (OH) in decisions about reasonable adjustments (Chapter 4 section 4.12).
Two focus groups (1 and 3) in particular also explored the involvement of OH in providing advice about supporting students with disabilities. Neither discussion offered positive experiences. While recommendations were offered by OH, one ADC then had to decide whether the recommendations could be implemented:

“Occupational Health make the recommendations but there is that bit of small print ...it is for the university to make the decision whether or not they can be supported; it’s our responsibility, so that can be a bit of a tension” (P. 1)

Similarly, another participant referred to their experience of seeking support about reasonable adjustments for practice:

“[OH] they’re contracted to do work for us ...and yet they don’t deliver this bit ...so we are left to figure out with our practitioner, a senior charge nurse, what an adjustment might be. [OH] know and ...to be honest, how would most of us know what would be reasonable?” (P. 10)

While collaboration with practice was evident in the circumstances, the participant, an academic, was clearly uncomfortable with the lack of anticipated guidance and resulting ambiguity regarding what was deemed ‘reasonable’ in practice settings.

Other participants also recounted situations where they felt unsupported by OH when trying to establish what support needs students with disabilities may have and what support measures could be suggested. A specific situation was recounted where a student had been deemed fit to be on the pre-registration nursing programme but when the student attended practice several issues arose with regards to executing clinical skills despite the suggested reasonable adjustments being implemented. To address the difficulties and try to identify alternative support measures the student was referred back to OH:

“we referred [the student] to Occupational Health, because we’d been advised that they would be able to do ...simulated assessments. And then [OH] bounced it back to us and said, ‘no you need to do them’.” (P. 9)

Generally there seemed to be different interpretations of the role of OH when identifying support measures and recommending reasonable adjustments for pre-
registration students. It appeared the OH assessment pertained to establishing a potential student’s suitability to access a pre-registration nursing programme. However participants perceived OH should offer specific advice about supporting students with disabilities in practice, just as they would for an employee. As an ADC I have had similar experiences. Thus I sought clarification from the OH department about whether the assessment of prospective students with disabilities was to establish “fitness” for undertaking a pre-registration nursing programme and/or for taking up employment as a registered nurse, with reasonable adjustments. The response advised:

“Students are assessed for both. Reasonable adjustments are only reasonable if they can be accommodated in the workplace when a student qualifies.”

This perspective reflected the expectations of the research participants but did not mirror their reported experiences.

Within the data participants’ clearly articulated actual and potential differences arose when identifying and facilitating reasonable adjustments within and between pre-registration nursing education contexts. Firstly, there was the implication reasonable adjustments were easier to facilitate in academic settings. Secondly, some support measures facilitated in academic settings were deemed unreasonable for practice. Thirdly, it was suggested academic staff had more experience than mentors when supporting students with disabilities, which some academics disputed. Lastly, although advice and guidance was sought, often it was nebulous leaving individuals to make their own decisions about support based on their attitudes, experience and knowledge. In addition, although phase one respondents identified who was responsible for deciding what reasonable adjustments can be implemented (Chapter 4 section 4.12), phase two participants were less clear. As a result of the reported ambiguity about responsibilities for identifying and implementing reasonable adjustments in the different settings, student support may be delayed or not available. This could impact on the students’ performance, assessment outcomes, and ultimately their safety.
5.3.2 Differences due to status

The data suggested there were differences in the types of support made available to individuals due to their status i.e. students with disabilities compared to registered nurses with disabilities. This dichotomy was summarised as follows:

“There’s two different things ...reasonable adjustment in the context of: ‘Can I get you through a course?’ and then there’s reasonable adjustment: ‘Can I support you to work in practice?’” (P. 21)

This extract suggested some reasonable adjustments may be offered with a view to supporting students with disabilities to complete their programme of study, while support for employees was different. The participant developed the point to relate it to the role of programme providers:

“our job is to support them through this course, not support them when they’re qualified nurses.” (P. 21)

Contrary to this opinion, there was concern some support provided for students may be deemed unreasonable, particularly if similar support was not available to employees. Indeed there was unease that some adjustments offered to pre-registration students may be detrimental in the longer term. An example offered specifically related to students with anxiety disorders:

“in the treatment of anxiety disorders, you would want to discourage dependence on people and discourage avoidance of the things they are anxious about. Some ...reasonable adjustments are about enabling the continuation of the anxiety disorder, a separate room for exams. It’s avoidance of the situation that they fear so not necessarily good long term” (P. 2)

Arguably a written exam in university is an unusual but stressful situation that was unlikely to be repeatedly experienced by students or employees in practice. Therefore providing a separate room was considered reasonable support in exam situations. However as registered nurses were often exposed to extremely stressful situations it was expected they would develop strategies to manage their anxiety. Therefore the participant was suggesting that perhaps other support strategies should be offered to assist students with anxiety disorders to learn to manage their
anxiety in different contexts, rather than providing adjustments that cannot be applied in all contexts, especially when employed as a registered nurse.

Conversely, some reasonable adjustments were available for employees but not students. One of the main factors which dictated whether the nature of the support offered to students differed to that provided for an employee was resources. One participant discussed reasonable adjustments for hearing impairment. It was highlighted that although hearing loops were anticipatory reasonable adjustments, older healthcare environments may not have loops in situ. Thus, practice areas were more likely to install an amplified telephone and/or hearing loop for an employee, where practical and cost effective within the area’s resources, rather than for a student on a short placement:

“... as a qualified nurse in an area, aids can be put in for that person working in that area ... but if an area doesn’t have that [aid], ... to put it into an area for a student ... for six weeks becomes unreasonable” (P. 3)

In this situation alternative reasonable adjustments must be identified for students. For example a portable hearing loop could be offered to a student with hearing impairment.

A further concern related to differences in perceptions about reasonable adjustments provided for a student being deemed unreasonable once their employment status changed to a registered nurse. Alterations to available support could impact on a person’s ultimate ability to meet role requirements.

“the big issue for me would be about whether those sorts of support are likely to be available in practice, and if not and it means that the person is likely to fail as a nurse ...then maybe we are failing them by putting in place those sorts of adjustments [for students].” (P. 2)

“because of the inconsistent approach to it then you are potentially putting people through training and then if they go into certain jobs they’re going to struggle.” (P. 19)

“you might be setting somebody up to fail at the end because they might not be able to work as a registered nurse if [student support was] unreasonable ...I think that causes a dilemma” (P. 21)
Similarly there was also unease about meeting expectations that were established in response to support that was provided for students:

“[there’s an] assumption when you go into a workplace after you qualify that you’re going to get the same reasonable adjustment and ...there might be a workplace that can’t provide that [reasonable adjustment] so people will not have the opportunity to be fit to practise.” (P. 19)

Interpretations of ‘fit to practise’ varied depending on whether the context pertained to a student or an employee and this fuelled apparent differences between the support deemed reasonable for students and employees. One participant shared about a Fitness to Practise enquiry:

“I did get a query from a manager in practice ...because they had someone who had been a student with ...support who was now a registered nurse and has now gone down a performance route” (P. 21)

The extract highlighted that while the individual had met the pre-registration nursing programme requirements with support, and was regarded as fit for practise as a student nurse, they were not meeting the performance level expected of a registered nurse. This finding suggested there were inconsistent perceptions about the types of support a registered nurse would need to be ‘fit for practice’ compared with a student nurse.

Several other examples of support measures deemed reasonable for someone depending on whether they were a student or employee were imparted during data collection. In some reported situations workloads were re-arranged so community visits were scheduled for mornings when the student was less tired, leaving office-based work for afternoons. However employees would be expected to deliver care as required across the day. Other students were offered later starts or were excused for being late for their shifts.

“I have had students say to me that because of their depression they will be late for practice sometimes ...nobody should have to make an adjustment around that. If you’re not well enough to go practice, don’t go...” (P. 10)

“late starts, longer lunch breaks ... that’s okay for a short period when you’re in your training but if you were actually in a ward and
you got there and everyone else had phoned in sick or you need bank staff, ...how manageable is that? (P. 17)

These extracts related to points about ‘unreasonable’ adjustments facilitated for students that would not be available to employees. One participant resolutely stated decisions had to be taken about whether students actually were well enough to attend their programme of study. This related to fitness to practise, a position previously referred to in Chapter 4 (section 4.14).

The requirement for nurses to be ‘fit for purpose’ and ‘fit to practise’ was emphasised on several occasions throughout the data, which participants’ specifically related to reasonable adjustments:

“what the NMC requires them to meet ...we have to abide by that or we would be falsely saying that students are fit for purpose and fit for practice.” (P. 12)

“it’s that fit for purpose that decides ...what is reasonable.” (P. 14)

“If ... I would be concerned about them going into practice then I would ... probably think about Fitness to Practise” (P. 21)

Some participants advised students not meeting the required competencies would be referred to Fitness to Practice committees, a process in keeping with the NMC requirement for pre-registration nursing programme providers to have fitness to practise policies and procedures.

“Sometimes the [student] cannot attain the competencies and that is when the student would be possibly directed through the fitness to practise route, because of a fail in practice” (P. 6)

Alongside the notion of fitness to practice, Safety First was a theme that constantly hovered in the background during the conversations. Hence, safety as a concept was evident in several of the shared examples which illustrated diverse interpretations of the NMC standards and how they may be demonstrated. One example concerned student competence in emergency care. It was expected that nursing students would act appropriately in emergency situations. Responding in an emergency was discussed in several focus groups/individual interviews with considerable diversity of opinions:
“I wouldn’t like to differentiate between an actual skill of doing it and a skill of being able to organise it.” (P. 3)

“respond to emergency situations ...that’s based on what the NMC says, but they don’t define what they mean by ‘respond’.” (P. 9)

“I read …being able to respond …in a skills-based way but primarily in an intellectual way about making a decision about what you do.” (P. 10)

“do they need to be able to physically do [CPR], or understand the procedure to help the patient?” (P. 14)

Having experienced situations in simulation and in practice where students were unable to perform CPR, one participant highlighted a dilemma they had about the students’ competence being demonstrated in simulation:

“the biggest challenge...is people’s actual physical ability to carry [CPR] out.” (P. 12)

From this participant’s perspective, students should have the ability to perform CPR in an emergency situation but there was a realisation that some students may not be able to physically complete the CPR. Another participant agreed students should be physically able because otherwise patient safety was at risk:

“I’ve had situations where ... my patient’s arrested [and] people aren’t around ... the only person that will suffer ... is the patient.” (P. 21)

From a different perspective, two participants advocated that physically undertaking CPR was not necessary

“...take a team approach [where] everybody in the team has different skills and expertise.” (P. 13)

“understanding the procedure will help the patient.” (P. 14)

I reflected on the various perspectives about this particular NMC requirement for progression but did not reach a firm conclusion:

“My understanding is a student nurse is required to demonstrate how to respond in an emergency and how to administer first aid. Therefore student nurses should know how to do it and display their ability to undertake CPR. This is mandatory training but not all student nurses demonstrate competence in this skill but still
To substantiate the point that everyone does not need to have the same level of knowledge and skill about every aspect of nursing, a discussion developed about whether it would be feasible to offer bespoke pre-registration nursing education. The participants identified that some students are very clear about the area of nursing practice in which they wish to pursue a career. An example was a person with a physical disability who wanted to work in a mental health telephone crisis response team. The student experienced several challenges with some of the psychomotor skills they were expected to demonstrate. In theory a bespoke programme would have enabled that student to demonstrate the required competencies to work as a registered nurse in a specific area of mental health nursing, with no requirements to be able-bodied. One participant emphatically stated:

“being a nurse is just so much more than your physical psychomotor ability.” (P. 11)

In response, while not specifically discounting particular competencies, another participant suggested:

“reasonable adjustment should ...consider which areas people are sent to ...there is a wide variety of clinical placements available ...choose clinical areas that they’re going to be able to meet the competencies that are required.” (P. 13)

This approach to support arguably could be perceived as levelling the playing field by selecting practice settings where the student may opt to have their career. However from other perspectives, this approach could be regarded as an unfair advantage through positive discrimination.

To exemplify some of the differences in supporting students as opposed to employees, one participant shared an experience of supporting an employed colleague with a disability:
“people made adjustments …but you always had to think of your workload and your allocation of work and, is it going to get done” (P. 8)

By implication there were challenges associated with the potential impact of the colleague’s agreed support, which may not have been as evident when supporting a student. However within the discussion, another participant shared a more positive experience of supporting a work colleague requiring reasonable adjustments:

“it’s very easy because there are things that the colleague says ‘...I really find that difficult, could we look at a different way of doing it?’ And actually it’s really straightforward because ...you can’t do that ...but you could do this instead” (P. 10)

The participant associated the positive experience to the level of clarity regarding the colleague’s difficulties and what support measures could be implemented reasonably to address these. In contrast, the participant considered supporting students with disabilities more difficult due to the vagueness of support recommendations, the need to repeatedly identify effective support mechanisms in new situations, and the student’s approach and engagement with reasonable adjustments, as alluded to in section 5.3.1.

Evidence of diverse opinions regarding reasonable adjustments that could be offered to students compared to employees, including other professional groups, was also presented. An example was the recommendation students should be able to record patient handovers in practice to assist with processing and recall. Practice staff would not permit the use of a Dictaphone for fear of students breaching confidentiality and data protection, which was regarded a safety issue.

“I’ve had experience of students using a Dictaphone, but then you’ve got to think of all the confidentiality and ...is that reasonable? I personally think it is, but others have disagreed and said ‘no’” (P. 9)

This was despite the fact that issues of confidentiality and data protection were not raised when other professional groups (e.g. doctors) use Dictaphones. Several participants considered Dictaphones a reasonable adjustment, particularly when students were aware of their responsibilities to delete the recorded data at the end
of a shift. One participant determined the reason for refusing the Dictaphone use was purely due to lack of understanding:

“clinicians don’t actually understand ...they jump to conclusions about what the problem is ...how is a bit of paper with a load of stuff any safer unless you shred it, rip it up. You just delete [the recording].” (P. 10)

Essentially, preserving confidentiality was everyone’s responsibility and undeniably, any risk to data protection was also evident from paper notes which were not effectively discarded.

A further interesting debate that arose during the discussions concerned reasonable adjustments affecting shift patterns. While it was acknowledged alternate shift patterns were a reasonable adjustment for students and employees, it was recognised service need must also be met. Students usually followed the shift patterns undertaken in a practice setting, and in particular endeavoured to follow the shift patterns of their mentor. However some examples to altered shifts were provided:

“instead of working 12-hour shifts, the student will work 8-hour shifts because of some health issue” (P. 3)

“Shorter shift patterns, possibly not needing to undertake night shift unless that was educationally useful” (P. 6)

A few participants presented practice hours as an area where challenges could ensue when trying to offer ‘reasonable’ support for students. A particular situation was relayed where issues arose when a student requested to work specific hours as part of their requested support in practice:

“the hours that student was working, it couldn’t fit with the clientele, and [practice] couldn’t provide mentor support.” (P. 3)

On occasion when trying to adjust practice hours difficulties developed while also facilitating attainment of competencies to pass their practice assessment:

“reduce the hours or only work certain days of the week but then they ...can’t achieve the number of hours they need for a grade or they never get to see things that happen at different times ...it becomes a problem” (P. 3)
“the implications is that they are not going to have done enough hours to be graded ... they will need to repeat that module and for some students that means ... they are not going to progress to the next stage.” (P. 1)

The issue of competence and interpretation of NMC standards was raised again regarding students with diabetes or epilepsy who may experience difficulties managing transitional shift-patterns not being required to work night-duty. As the issue of 24-hour care had already been raised in phase one (chapter 4 section 4.15) I sought clarification regarding how students would demonstrate their ability to meet the NMC requirement to experience 24-hour care and was afforded the following responses:

“They’re not required [to do] nights anyway, because it’s not mandatory ... for 24-hour care, if you’re working with a case load in the community, ... you’re making decisions around 24 hours with that patient.” (P. 11)

“...[students] never work a night shift and barely work a weekend if you can get away with it ... [but] you’re prescribing care for the rest of those hours.” (P. 12)

Although this was not my understanding of the NMC Standards, the participants were so emphatic that no HEI mandated night duty, as the focus group facilitator, I opted not to probe any further at that time because I wanted to check the wording of the standards and did not want to influence the discussion. The Standards state,

“Programme providers must ensure that practice learning throughout the programme provides students with experience of 24-hour and 7-day care.” (NMC, 2010)

On reflection my own interpretation remained unchanged, namely students should have experience of night duty, albeit it may only equate to one or two shifts across their programme of study. Careful planning and collaboration would be required to minimise the potential impact of a disability. Thus, students would have direct experience of 24/7 care and could then plan care with insight. However I also acknowledged that employees would either opt to work in an area not delivering 24-hour care or would negotiate not to work night duty. Therefore the support differences between students compared with employees was highlighted again.
Divergent explanations of the NMC requirement for students’ to experience 24-hour care illustrated the variations in participants’ interpretations of the NMC Standards. The perceptions ranged from the literal understanding students should experience 24-hour care, to students not ever undertaking night duty because they can demonstrate the requirement of experiencing 24-hour care through care-planning. Interestingly participants’ knowledge and understanding of the NMC standards influenced their perspectives of the competencies students were expected to demonstrate to meet those standards. This could impact on fairness and may arguably not be levelling the playing field because other students without disabilities may have sound reasons not to participate in 24-hour care but would still be expected to undertake night shifts, especially to ensure adequate mentor contact time. Thus the wicked nature of the reasonable adjustment problem was further reinforced.

Throughout this chapter so far examples of disparate perceptions regarding what constituted the notion of reasonable have illustrated how these have influenced participants’ decisions about the level and type of support offered in the different education settings. In turn judgements regarding whether students and employees with reasonable adjustments were fit to practise and fit for purpose were influenced by attitudes, expectations and values as well as knowledge and understanding of the issues people with disabilities present. Consequently students’ experiences of diverse attitudes and staff reactions to their requests for support needs influenced engagement and the overall process of disclosure particularly whether those with disabilities opted to disclose or not.

5.4 To disclose or not disclose?
The theme to disclose or not emerged from an expectation that information concerning students with disabilities would be shared appropriately, efficiently and effectively. However, from participants’ experiences, it was evident these
expectations were rarely met. While there was an accepted reliance on information regarding disabilities, support needs and recommended reasonable adjustments, it was apparent the processes to facilitate communication of such information were extremely variable and at times ambiguous. Within this theme the concept of consent was evident as were the expectations of academic and practice staff that students would disclose their disability and support requirements. In essence this theme addresses the key questions concerning the disclosure of students’ support needs in terms of the How? What? When? Where? Who? and Why?

Disclosure was recognised as being required at several points along the educational continuum: prior to accessing a programme of study, during academic sessions, prior to practice placements, and when the students’ needs had changed. On application to a programme students were asked to disclose if they had a disability. When students selected the option to disclose, they were:

“assessed in terms of reasonable adjustments for their academic learning” (P. 1)

Participants highlighted consent must be obtained before any information regarding support would be shared by the HEI Disability Services to academic and subsequently practice-based staff. Where consent was not granted, details about a student’s disability and/or support recommendations would not be shared.

“if they don’t give consent we can’t help them.” (P. 5)

“if [a student] said ‘I don’t want it disclosed’, then we wouldn’t do that.” (P. 3)

Students reportedly provided consent to share in the majority of cases. Details about students with disabilities and support recommendations were distributed to ADCs and then to lecturers either via a central repository or via email. On some occasions practice areas would be notified via telephone in advance of a student placement beginning:

“Sometimes we may be contacted by the university to notify us, that there is a student coming who may require a reasonable adjustment.” (P. 18)
Yet even with consent, some HEIs did not share any information regarding a student’s disability, support requirements or reasonable adjustment recommendations with practice staff:

“The onus is on the student.” (P. 6)

“We wouldn’t tell practice.” (P. 10)

“The university doesn’t disclose anything to the mentors.” (P. 16)

“The rules are that it’s up to the student to tell practice ... Data Protection and Confidentiality, the student’s entitled to that.” (P. 21)

There was an expectation that students would proactively discuss their support needs with their mentor:

“[students] are encouraged to discuss them with their mentor on placement.” (P. 4)

In fact, there was acknowledgement that issues could arise when there was a lack of awareness that a student had a disability, perhaps due to non-disclosure:

“The people who have disclosed are the only ones that you know, because they’ve disclosed, but an equal barrage of people who haven’t disclosed.” (P. 11)

Hence a further dichotomy in terms of making reasonable adjustments emerged as a consequence of some participants feeling the responsibility to disclose information should not be the student’s alone,

“The student would have to tell, which I think is poor actually.” (P. 10)

Several participants referred to the need for disclosure so that necessary risk assessments could be completed in practice. This was linked to the potential impact students’ needs may exert on patients and other staff:

“[students] should realise the impact their condition has or could have on the placement.” (P. 5)

“It’s about patient safety at the end of the day.” (P. 7)
“we need to know [about disabilities] because these people need to be safe in practice.” (P. 21)

A possible explanation for this attention to safety first may have been in part due to the highly publicised Patient Safety agenda. However an example of a student safety issue which resulted from lack of disclosure was also shared:

“[A Student] disclosed it half way through her placement when she became unwell. And that doesn’t make the mentors feel happy. There was a concern that [the student] didn’t disclose it.” (P. 5)

The mentor’s concern related to potential risks which resulted from an inability to respond appropriately when the student became ill. The situation not only impacted on the student’s practice learning experience and safety, but also potentially on the mentor and patients because the lack of disclosure had resulted in failure to complete a risk assessment to identify necessary support measures.

One academic participant reinforced that students were responsible for discussing support needs with mentors and candidly confessed to students being ‘out of mind’ when on placement:

“I think students go out into practice and they become a bit invisible to us, once they’re out there it’s they’re out unless there’s a problem.” (P. 21)

Thus, not only were students responsible for disclosing details of their disability and/or support needs as well as relaying recommended reasonable adjustments to practice staff, mentors were expected to advise academic staff when a student was not performing in practice.

Disclosure was linked to the notion of professional responsibility:

“students have a professional responsibility to disclose [and] realise the impact ... their condition has or could have on the placement. That is not being discriminatory it’s actually common sense.” (P. 5)

However despite the expectations for disclosure, it was recognised by some that disclosure was a choice:

“we’ve come across students that have chosen not to disclose.” (P. 1)
“it’s their choice to disclose to the university.” (P. 10)

“Even when students do disclose to [their HEI] ... a number of students do not disclose in practice.” (P. 6)

Indeed, acknowledgement was given to the factors that may influence a student’s choice to disclose:

“You’re relying on the student being entirely comfortable with their disability, which is not always the case, some will be more concerned about disclosure, and there still may be an element of embarrassment around that particular disability that they will have concerns about sharing.” (P. 12)

“[students] are worried about what people will think about them.” (P. 2)

The challenges associated with labelling and stigma was expanded further to explore other reasons why students may opt not to disclose, with participants sharing their own experiences.

“Students themselves worry that if they’re labelled, then it not only will affect their progress on the course, but it affects their longer term job prospects.” (P. 9)

“I do know from my experience, the ones who come to me with mental health problems are not that willing to disclose them to anybody other than who needs to know; so even in practice areas. ...mental health problems still carry a stigma.” (P. 13)

The question was raised about the feasibility of accessing support without disclosing the nature of a disability. Irrespective of reasonable adjustments being suggested some students opted not to access support measures for fear of labelling by default, there was concern that some mentors would reach their own conclusions regarding a disability based on the reasonable adjustments requested. Therefore student support in practice was compromised:

“some [students] choose not to use their adjustment plans that are put in place ...from my experience everybody uses their adjustment for theory.” (P. 6)

Based on concerns regarding labelling and stigma, the students’ choice may have been influenced by perceptions regarding the potential impact of their disability, or request for support, within the practice setting.
Participants accepted that students had to make a decision about how and what to disclose, to whom and when. As students had experienced anxiety around disclosure, participants admitted the student’s ability and willingness to disclose would depend on various factors:

“who needs to know in that clinical setting, why do they need to know?...it will depend very much on the disability itself, or depend on the clinical environment and what they think is reasonable.” (P. 12)

The complexity of certain situations precluded students from making an effective independent disclosure. Consequently academic staff supported students to disclose so that support was accessed and mentors were supported by PEFs to implement reasonable adjustments.

“[although] the onus is on the student [to disclose] ...we’ve had a couple of students who have been very complex and what we have asked them is can we share with the practice education facilitator ...the information ...so that they can also support the mentors.” (P. 6)

Despite support being available from academic staff, participants also relayed incidences where there was a lack of disclosure which resulted in mentors raising concerns about students’ integrity:

“practitioners would like the student to be open and honest, because they think that if they don’t disclose then their integrity [is called into question],” (P. 6)

While arguably a severe stance, this view seemed to be implying that lack of disclosure could be an indication that students may not be totally truthful in their nursing practice, which could impact on safety.

Clearly the decision to disclose a disability and/or required support measures was influenced by a number of factors including attitudes, experiences, reactions from academic staff and mentors, and perceived consequences. The decision would also generate various outcomes, which potentially result in other problems, which was yet another feature of the wicked nature of reasonable adjustment.
5.5 Summary

Chapter 5 has detailed the findings from phase two of the study. Following analysis of participants’ experiences and perceptions of supporting pre-registration nursing students with disabilities in Scotland four major themes were identified:

i. Reasonable adjustments: a wicked problem.

ii. The influence of context: location and status.

iii. To disclose or not disclose?

iv. Safety first.

While three themes were discussed individually using verbatim quotes to illustrate the points made, the fourth theme Safety first was threaded throughout the discussion. The relationship between themes was clearly evidenced by the overlap between concepts within the themes. In fact, the data clearly manifests that reasonable adjustments: a wicked problem was an all-encompassing concept that will be discussed in depth in chapter six.

Undoubtedly while participants struggled to articulate meaningful definitions of reasonable adjustment, they all agreed the purpose of support offered to students with disabilities was to provide equal opportunities and promote fairness through levelling the playing field. However there were also indications that reasonable adjustments were a bounded concept due to factors including attitudes, perceptions and values as well as knowledge and understanding of the standards for pre-registration nursing education. Levels and types of available support were influenced by the context, not only the educational setting but also a person’s status as a student compared with being a registered nurse employee. The findings illustrated variable expectations of how student nurses demonstrated competence and fitness to practise, and in the examples offered there were definite differences of opinion regarding what support measures were seen as ‘reasonable’.

Furthermore academic and practice staff generally assumed students would disclose their disabilities to access required support. However in every new learning
experience (academic or practice) students repeatedly had to decide whether to disclose or not. Decisions were informed by previous experiences and perceived gains or losses based on the responses of others and the overall culture of the learning environment. Clearly there was consensus that patient safety came first, and consequently perceived risk was another factor that influenced decisions about reasonable adjustments.

Thus the findings illustrated participants’ experiences and perceptions of supporting student nurses with disabilities were diverse and inconsistent between and across academic and practice settings involved in pre-registration nursing education in Scotland. The apparent difficulty describing and explaining reasonable adjustments was manifested through the contributions of the participants. The complexity of harnessing a concept that presented new challenges with every new situation and which was influenced by a variety of stakeholders’ attitudes, knowledge and values has resulted in ambiguous and inequitable support provision. Hence reasonable adjustments plainly contain several components of a wicked problem: complex, framed by the context and difficult to solve.

In Chapter 6, the findings from chapters 4 and 5 are synthesised to further develop the discussion to underpin the theory that reasonable adjustment is in fact a wicked problem
Chapter 6: Discussion

6.1 Introduction

As outlined in chapter 3 (section 3.8.2), the main aim of the research underpinning this thesis was to explore the concept of reasonable adjustments within pre-registration nursing education in Scotland. To achieve this aim the research objectives focussed on: examining the processes involved in the identification and management of reasonable adjustments for pre-registration nursing students with disabilities in Scotland; establishing the meaning of reasonable adjustment from the perspectives of lecturers (Academic Advisors (AA) and Academic Disability Coordinators (ADC)) and Practice Education Facilitators (PEFs); and exploring the experiences of AAs, ADCs and PEFs regarding the factors affecting the implementation of reasonable adjustments. This chapter synthesises the findings reported in chapters 4 and 5, contextualising them within the wider literature and existing research. Several dichotomies impacting on reasonable adjustments in Scottish pre-registration nursing education are analysed as contributory factors to the theory that reasonable adjustments is a wicked problem. Cognisant of the influence I exerted on the research due to my own experience, knowledge and understanding of reasonable adjustments, this chapter also includes a section about reflexivity to complement the reflexivity section included in chapter 3 (section 3.12).

6.2 Reasonable Adjustments: A Wicked Problem

If there is a single statement that summarises the findings of this research, it is this: reasonable adjustment was and still is a wicked problem. By definition wicked problems are ambiguous, complex, difficult to define, intractable, multi-factorial, and value-laden (Rittel & Webber, 1973; Kreuter et al., 2004; Conklin, 2005; Grint, 2008; Head, 2008; Butler, 2013; Rolfe, 2014; Head & Alford, 2015; Beer & Lawson, 2017; Lamentowicz, 2017). Wicked problems are also context-specific and can stem from lack of knowledge about how to address the problem (Grint, 2008).
particularly as a range of stakeholders are usually involved who are striving to meet their own ‘personal’ objectives and priorities (Rittel & Webber, 1973; Krause, 2012; Southgate et al., 2013; Jordan et al., 2014; Head & Alford, 2015).

Wicked problems are the antithesis of ‘tame problems’. Tame problems may be technically difficult (Krause, 2012) but are clearly defined, easily recognised by experts, and readily solved in a linear scientific manner, often because the problem has occurred before (Rittel & Webber, 1973; Kreuter et al., 2004; Conklin, 2005; Grint, 2008; Lamentowicz, 2017, Varpio et al., 2017). Tame problems include for example solving a mathematical problem and playing chess (Rittel & Webber, 1973), scheduling a timetable (Grint, 2008), using a map to plan a journey (Krause, 2012) or organising a patient discharge. In comparison, seminal work by Rittel & Webber (1973) identified that wicked problems have 10 key characteristics (Table 6.1).

Table 6.1 Characteristics of Wicked Problems

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No definitive formulation</td>
</tr>
<tr>
<td>2</td>
<td>Wicked problems have no stopping rule</td>
</tr>
<tr>
<td>3</td>
<td>Solutions to wicked problems are not true-or-false, but good-or-bad</td>
</tr>
<tr>
<td>4</td>
<td>There is no immediate and no ultimate test of a solution to a wicked problem</td>
</tr>
<tr>
<td>5</td>
<td>Every solution to a wicked problem is a ‘one-shot operation’; because there is no opportunity to learn by trial-and-error, every attempt counts significantly</td>
</tr>
<tr>
<td>6</td>
<td>Wicked problems do not have an enumerable (or an exhaustively describable) set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated into the plan</td>
</tr>
<tr>
<td>7</td>
<td>Every wicked problem is essentially unique</td>
</tr>
<tr>
<td>8</td>
<td>Every wicked problem can be considered to be a symptom of another problem</td>
</tr>
<tr>
<td>9</td>
<td>The existence of a discrepancy representing a wicked problem can be explained in numerous ways. The choice of explanation determines the nature of the problem’s resolution</td>
</tr>
<tr>
<td>10</td>
<td>The planner has no right to be wrong</td>
</tr>
</tbody>
</table>
Nevertheless, problems do not need to exhibit every specific characteristic to be defined as wicked because problems generally have ‘degrees of wickedness’ (Conklin, 2005, p. 10; Head & Alford, 2015). Therefore wicked and tame problems are located at opposite ends of a continuum (Kreuter et al., 2004).

Wicked problems have been identified in areas such as environmental health (Kreuter et al., 2004); policy and planning (Rittel & Webber, 1973; Head, 2008; Briggs, 2012; Head & Alford, 2015); and education (Krause, 2012; Sharts-Hopko, 2013; Southgate et al., 2013; Beer & Lawson, 2017; Hawick et al., 2017). Diversity and inclusion have similarly been acknowledged as wicked problems (Butler, 2013; Martyn, 2014; Varpio et al., 2017). However, to my knowledge, reasonable adjustment has not been theorised as a wicked problem in the literature.

In the following sections, I will argue that reasonable adjustment has many (if not all) of the characteristics of a wicked problem. To introduce the argument, table 6.2 presents the characteristics of wicked problems and a synopsis of the features exhibited by reasonable adjustments that were identified from the findings presented in chapters 4 and 5.

**Table 6.2: Wicked problem characteristics and reasonable adjustments**

<table>
<thead>
<tr>
<th>Wicked Problem Characteristics (Rittel and Webber, 1973)</th>
<th>Reasonable Adjustments – a wicked problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) <strong>No definitive formulation</strong>: the understanding of a wicked problem depends on solution ideas.</td>
<td>Reasonable adjustments are viewed from several perspectives depending on the context: Academic v Practice Student v Employee Safety v Risk Law v Professional Regulation Consequently although various definitions exist about support, depending on how reasonable adjustments are framed, the definition often lacks precision. Thus to understand the problem there is a need to identify all possible resolutions because every resolution unveils new features of the problem, which are influenced by the context as well as attitudes, perceptions and values of all stakeholders (sections 4.10, 4.12, 4.15, 4.16, 5.2 and 5.3)</td>
</tr>
<tr>
<td>Wicked Problem Characteristics (Rittel and Webber, 1973)</td>
<td>Reasonable Adjustments – a wicked problem</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td><strong>(2) Wicked problems have no stopping rule:</strong> as there is no definitive formulation of the problem, there is no definitive solution to the problem. The process ends when resources (e.g. time, money, and tolerance) have been spent or there is acceptance the resolution is 'good enough'.</td>
<td>Reasonable adjustments require reframing in new contexts resulting in different resolutions. Thus whether a student is undertaking a new module, has progressed to the next year of study, or is undertaking a new practice experience, proposed reasonable adjustments should be reviewed. However every proposed resolution unveils new factors to be considered (e.g. setting, requirements, and resources). With regards to pre-registration nurse education, as well as professional requirements, local, regional and national requirements of students must also be considered. However interpretations of the requirements, and how they can be met, vary. Support may be good enough when students successfully progress and complete their programme but generally this has not been established (sections 4.10, 4.12, 4.15, 4.16, 5.2 and 5.3).</td>
</tr>
<tr>
<td><strong>(3) Solutions to wicked problems are not true-or-false, but good-or-bad:</strong> The judgement of a resolution is context specific and subjective. Different stakeholders will assess the resolution based on their own or group beliefs, preferences and values.</td>
<td>Different stakeholders regard resolutions as good or bad depending on their perspective of the problem e.g. scribe support may be deemed ‘good’ in HEI but ‘bad’ in practice. Stakeholders judge reasonable adjustments depending on their attitudes, perceived impact on the service (facilitating learning and/or care delivery), level of student experience, workload, patient safety and according to status i.e. student nurse or employee (sections 4.12, 4.15, 4.16, 5.2 and 5.3).</td>
</tr>
<tr>
<td><strong>(4) There is no immediate and no ultimate test of a solution to a wicked problem:</strong> Each resolution will result in various consequences the impact of which can only be evaluated once the consequences have expired</td>
<td>The decision to disclose or not will impact on the availability of any resolution, and thus may initially have indeterminate consequences. In turn, the consequences of specific reasonable adjustments may not be realised before the support has been implemented. For example, the impact of reducing practice hours may only be fully realised as a student progresses through the programme. Reduced practice hours may impact on student performance as well as exposure to practice learning experiences to support competence achievement. Thus students may fail practice and/or experience difficulty completing their programme especially where time limits are implemented (sections 4.10, 4.16, 5.2, 5.3 and 5.4).</td>
</tr>
<tr>
<td>Wicked Problem Characteristics (Rittel and Webber, 1973)</td>
<td>Reasonable Adjustments – a wicked problem</td>
</tr>
<tr>
<td>---------------------------------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td><strong>(5)</strong> Every solution to a wicked problem is a ‘one-shot operation’; because there is no opportunity to learn by trial-and-error, every attempt counts significantly: Any undesired consequences generate more wicked problems which cause similar dilemmas.</td>
<td>Students opting to disclose a disability have no option to withdraw the disclosure once it has been made. Therefore in some situations students require to deal with unwelcome consequences (for example negative attitudes and discrimination). There is very limited opportunity to learn by trial and error when implementing reasonable adjustments because the students’ progress through their programme of study may be affected. For example if altered/reduced practice hours are routinely offered as a reasonable adjustment, the students’ progression and potential completion date may be delayed. With regards to care delivery participants strongly asserted patient safety was a priority and would be preserved irrespective of a student’s support needs. Thus offering extra time to complete patient care e.g. medicine administration could have significant consequences if timing of administration was impacted upon [Nine rights of medicine administration (Elliot and Liu, 2010)]. Similarly support implemented in one context may not be ‘reasonable’ in another context: Academic v Practice; Practice v Practice (e.g. different specialities/services/environment). Reasonable adjustments also require individualisation, and thus regular evaluation and review of support needs are required (sections 4.10, 4.15, 4.16, 5.2, 5.3 and 5.4).</td>
</tr>
<tr>
<td><strong>(6)</strong> Wicked problems do not have an enumerable (or an exhaustively describable) set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated into the plan. The lack of criteria to ascertain whether all potential solutions have been considered means the selected resolution will be influenced by the stakeholder’s perspective.</td>
<td>Nebulous guidance results in ambiguity about the actual problem and difficulty identifying potential resolutions to ensure students are supported with equal opportunities by <em>levelling the playing field</em> across the different pre-registration education settings. Some resolutions will be influenced by experience, knowledge and interpretations of any available guidance (e.g. sections 4.13, 4.14, 5.2.2, 5.3.2 and 5.4). Thus the attitudes and judgements of stakeholders influence decisions about what may be deemed ‘reasonable’ in a specific context. Therefore the support offered to students is likely to be inconsistent and variable.</td>
</tr>
<tr>
<td>Wicked Problem Characteristics (Rittel and Webber, 1973)</td>
<td>Reasonable Adjustments – a wicked problem (Continued)</td>
</tr>
<tr>
<td>---------------------------------------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>(7) Every wicked problem is essentially unique. This is despite potential similarities between current and previous problems.</td>
<td>Students with disabilities require individualised student-centred support. Every student experience and requirement for reasonable adjustment in academic or practice settings is unique. The impact of a disability may vary and thus different levels and/or types of support may be required at different points in time. Although suggested reasonable adjustments can be offered and may have worked in previous situations, one size does not fit all. Therefore stakeholders need to acknowledge the uniqueness of every situation and agree on the viability of proposed resolutions. Regular review and evaluations of the reasonable adjustments should also take place (sections 4.9, 4.10, 4.16, 5.2, 5.3 and 5.4).</td>
</tr>
<tr>
<td>(8) Every wicked problem can be considered to be a symptom of another problem. The problem stems from differences between the current situation and how the situation should be. Identifying resolutions begins with identifying the reasons for differences.</td>
<td>Reasonable adjustments can be linked to the wicked problems of diversity and inclusion, they are interconnected. Trying to meet legal obligations while managing professional regulation can be problematic resulting in tension for stakeholders. For example nursing education providers have a Public Sector duty to offer reasonable adjustments. However some adjustments may not be perceived as reasonable in different settings. Also despite reasonable adjustments, students may not be able to demonstrate competency, perhaps due to interpretation of how the competence is demonstrated (e.g. Sections 4.10, 5.2.2, 5.3.2 and 5.4). Therefore reasons for the differences e.g. attitudes, context, resources must be recognised and then addressed.</td>
</tr>
<tr>
<td>(9) The existence of a discrepancy representing a wicked problem can be explained in numerous ways. The choice of explanation determines the nature of the problem’s resolution.</td>
<td>Stakeholders view reasonable adjustments from each of their own perspectives. This influences the framing of the problem as well as potential resolutions, which result in inconsistencies in support offered to students with disabilities across and between programme settings. Varied interpretations of the pre-registration nursing standards for education led to diverse examples of resolution which were not necessarily acceptable in different settings (e.g. Sections 4.10, 4.12, 4.15, 5.2.2, 5.3.2 and 5.4).</td>
</tr>
</tbody>
</table>
Wicked Problem Characteristics (Rittel and Webber, 1973) | Reasonable Adjustments – a wicked problem (Continued)
---|---
(10) **The planner has no right to be wrong.** The planner is responsible for the effects of any actions taken. | Whoever is responsible for proposing and implementing reasonable adjustments (or not) is also accountable for the consequences. Judgement regarding good or bad reasonable adjustments stem from stakeholders’ perspectives. This explains why some respondents reported that colleagues opted not to be directly involved in proposing reasonable adjustments. It also links to the diverse examples of resolution, some of which would not be supported by certain stakeholders e.g. late starts for students with depression (sections 4.9, 4.12, 5.2, 5.3)

The wicked characteristics displayed by reasonable adjustments will now be explored in more detail.

### 6.2.1 Reasonable Adjustments: Ambiguous and ill – defined

Difficulties experienced by participants when defining reasonable adjustments were clearly illustrated in chapter 5 (section 5.2.1). Some participants offered definitions focussing on the need to provide support to enable students with disabilities equitable opportunities to participate in nursing education. Indeed, reasonable adjustments tended to be regarded as fundamental to supporting people with disabilities (Equality Act, 2010; Kendall, 2017). Therefore, predictably the idea of ‘support’, which is also a key feature in the literature (White, 2007; Kane & Gooding, 2009; Crouch, 2010; Tee et al., 2010; Storr et al., 2011; Wray et al., 2012b; Howlin et al., 2014a; Howlin et al., 2014b), typifies the notion identified in the previous chapter of ‘levelling the playing field’. However, other participants found defining reasonable adjustments difficult, producing definitions that were somewhat vague. When attempts were made to define the term reasonable these were often tautological in nature given the terms ‘reason’ and ‘reasonable’ were repeated without explanation as part of the definition.
Use of the word ‘reasonable’ was in keeping with the Public Sector Duty required by the Equality Act (2010). This anticipatory duty stipulates ‘reasonable’ steps must be taken to prevent students with disabilities being substantially disadvantaged in their programme of study (Equality & Human Rights Commission, 2017). However as detailed in section 4.14 neither the Equality Act nor the professional guidance provide by the NMC offer a definition of ‘reasonable’. In fact, few of the documents that were analysed as part of this study included a clear definition of the term. Thus, it is not surprising that participants experienced difficulty trying to explain what was ‘reasonable’ given that the concept is subjective and open to interpretation based on the context as well as different attitudes, knowledge and values held by the various stakeholders involved. All of these are well-documented characteristics of a wicked problem (Conklin, 2005; Grint, 2008; Sharts-Hopko, 2013; Jordan et al., 2014).

Despite acknowledgement of the need to remain ‘reasonable’ the ambiguities regarding the term generated considerable debate in terms of what actually constituted reasonable support, a conclusion also reported by Elcock (2014). Part of the challenge of providing a clear definition of reasonable adjustments pertains to the perceived conflict between legal obligations determined within the Equality Act (2010) and professional requirements (NMC, 2010; NMC, 2017a). Tension was apparent between the law and professional regulation (Hargreaves et al., 2009; Stanley et al., 2011; Walker et al., 2013) in that the legal obligation to provide equal opportunity was at times counter to the fitness standards demanded by professional bodies (Disability Rights Commission, 2007; Sin & Fong, 2007; Sin & Fong, 2008; Storr et al., 2011).

The apparent tension and definition challenge were augmented by various interpretations of professional requirements, NMC education standards, and types of support that were deemed reasonable. The elusiveness of the definition was underpinned by each stakeholder’s construction of the differences between the terms ‘reasonable’ and ‘unreasonable’. Similar to Dickson (2007) findings from this study specifically highlighted the discrepancies in peoples’ understanding of the
term reasonable adjustment, and what might be deemed ‘reasonable’, when
examples were provided by participants. For example, in sections 5.2.2 and 5.3.2
there were times when the reasonable adjustments suggested by one group of
participants were deemed unreasonable by others. Consequently, social pluralism
and the intricacies involved in dealing with different organisations (Head & Alford,
2015) contributed to the wickedness of reasonable adjustments. It was evident
within the findings that multiple stakeholders (e.g. academic and support staff,
practice staff, and students) had their own views and values about reasonable
adjustments which were influenced by individual and/or group experiences and
organisational culture (Brooks, 2009; Alvesson, 2013; Head & Alford, 2015). Thus,
ambiguity, indistinct definitions, varied understandings and vague explanations of
the term reasonable adjustment within specific contexts clearly reflect the
characteristics of what Rittel & Webber (1973) defined as wicked problems.

From the findings, student nurses in Scotland undoubtedly have dissimilar and
variable experiences of support, not only between students in different HEIs but
also on an individual basis across academic and practice settings. Therefore
contrary to the intention of participants to offer equal opportunities by ‘levelling
the playing field’, it was apparent the situation was far from level. Despite pre-
registration nursing programmes being validated according to the same NMC
standards (NMC, 2010), which would imply there would be consistency across
programmes, the evidence highlighted inconsistent local practices. This finding
reflected experiences already reported in England (Griffiths et al., 2010; Stanley et
al., 2011) and internationally (Brown et al., 2006; Fossey et al., 2017). Nevertheless,
irrespective of the context, participants clearly articulated that the term
‘reasonable’ indicated that adjustments were and should be bounded. Essentially,
the word ‘reasonable’ implied there had to be limits (Dickson, 2011). However
there were also examples of inconsistent application of the perceived ‘boundaries
and limits’. This in part contributed to the diverse support strategies offered to
students within and across pre-registration nursing education in Scotland.
The need for clear guidance about reasonable adjustments and supporting students with disabilities was obvious from the data. As has been reported previously the availability of information and guidance concerning provision of support for students with disabilities is growing (Wray et al., 2012; Evans, 2015). However the findings illustrated any guidance needed to provide more details about reasonable adjustments with explicit examples of support that could be offered in academic and practice settings to promote consistency in support provision.

Interestingly there was a discrepancy in the findings between phases 1 and 2 participants regarding the availability of guidance. Seven Phase one respondents reported their HEIs had guidelines to support decision making about reasonable adjustments in academic settings, while four stated guidelines existed for use within practice settings. The greater availability of guidance about reasonable adjustments in academic settings as opposed to practice settings concurred with observation by Ashcroft & Lutfiyya (2013). Only one Phase one respondent made reference to guidance from the RCN and no-one considered the information provided by the NMC. In comparison Phase two participants hypothesised there was a general lack of guidance regarding the meaning of ‘reasonable’ and what constituted reasonable adjustments within a nursing context. These conflicting views suggested some participants were not aware of what, if any, guidance for supporting students with disabilities was available for staff either locally or nationally (e.g. ECU, 2010; Cowen, 2010a; Cowen 2010b). Other United Kingdom (UK) based literature has reported a similar lack of awareness and/or availability of support guidance (Morris & Turnbull, 2007; Griffiths et al., 2010; Stanley et al., 2011; Carey, 2012; Kendall, 2017).

Likewise, in Ireland (Howlin et al., 2014a; Howlin et al., 2014b; Nolan et al., 2014) and Australia (Fossey et al., 2017) the need for clear, well publicised guidance to explain reasonable adjustments and underpin decisions about support has been acknowledged. Thus existing guidance needs to be collated, reviewed and updated to reflect best practice prior to being widely promoted as a valuable resource to
underpin decisions about reasonable adjustments in pre-registration nursing education.

Even where local and national guidance about supporting students with disabilities were acknowledged, participants still commented on the nebulous and generalised nature of such guidelines. The documentary analysis (section 4.14) similarly found that guidance tended to be general advice on supporting students with disabilities mainly in HEIs, with little evidence of any consideration being given to specific forms of support available for students with disabilities in practice. Several participants referred to the NMC requirement for ‘Fitness to Practise’, and every HEI was found to have the required Fitness to Practise policies and procedures (NMC, 2016). However again inconsistencies were found in the diverse interpretations of fitness to practise displayed in the data, which influenced whether support measures were regarded as reasonable or unreasonable (section 5.3.2).

Fitness to practise is associated with good health and good character as well as the necessary knowledge and skills to be safe and effective practitioners (NMC, 2016). ‘Good health’ is defined as the individual being:

“...capable of safe and effective practice either with or without reasonable adjustments. It does not mean the absence of a health condition or disability.” (NMC, 2016)

Thus it is patently obvious that people with disabilities can be regarded as being of ‘good health’ so long as they can demonstrate safe and effective practice. The NMC (2015) has provided Health and Character Guidance for HEIs to direct decisions regarding ‘Fitness to practise’. However HEIs are charged with making decisions about ‘Fitness to practise’ based on local policies and processes, and the Equality Act. Despite expectations that the NMC Standards would ensure students would access similar experiences to underpin demonstration of an agreed level of competence (Carey, 2012), this does not appear to be the case. The data illustrated differing views resulted in considerable debate about whether people
with disabilities could be confirmed as ‘fit to practise’, a finding also reported by Riddell & Weedon (2014a).

The resultant opportunities for varied understandings by participants of the pre-registration standards and available guidance pertaining to ‘Fitness to Practise’ reinforced the ‘wicked’ nature of reasonable adjustments particularly in relation to nursing education. For example there were tangible inconsistencies in participants’, and my, interpretations of the notion of students needing to experience 24-hour care (section 5.3.2). The debate ranged from a position where the reasonable adjustment was for students not being required to complete any night duty because they could plan overnight care, to a requirement for students to experience night duty, even if this only equated to a few shifts across practice experiences throughout the programme. The diversity in accepted practices plainly reflected wicked problem characteristics: different stakeholders’ views resulted in resolutions that were deemed ‘good’ or ‘bad’ depending on each person’s perspectives (Rittel & Webb, 1973; Conklin, 2005; Grint, 2008) and the decision about ‘reasonable’ was underpinned by the proffered explanations about 24-hour care based on their respective interpretations of the NMC standards (2010). The diversity of stakeholders’ perspectives has already been highlighted in the literature with regards to fitness to practice (Sin & Fong, 2007; Sin, 2009; Stanley et al, 2011; Carey, 2012); good health and good character (Sin & Fong, 2008) and reasonable adjustments (Dickson, 2005; Kane & Gooding, 2009; Tee et al, 2010; Howlin et al., 2014b). Therefore this characteristic of a wicked problem is renowned.

Wicked problems are not understood until potential solutions are identified (Rittel & Webber, 1973; Conklin, 2005; Southgate et al., 2013). Therefore ambiguity persists unless resolutions are found. However any resolution has resulting consequences which may generate more problems. Within the data participants tended to focus on potential solutions rather than clarifying the actual problem when discussing support for students with disabilities. For example, where students experienced fatigue, shorter shift patterns or later starts were sometimes facilitated. In other situations students were only expected to discuss aspects of
care with mentors, while in other situations students were required to demonstrate their ability to deliver the care. Thus different types of reasonable adjustments were suggested and accepted without evident clarification of the actual problem. One example of the above diversity was highlighted in the findings with regards to CPR; some participants believed that an ability to direct a resuscitation attempt was sufficient to demonstrate competence while other participants expected students to be able to actively participate in CPR, including chest compressions. Indeed CPR is part of mandatory training and therefore all healthcare professionals including student nurses must engage with annual updates. The former resolution pertaining to demonstrating knowledge would result in patient safety being compromised according to some respondents, whereas engaging in an activity like CPR when there is awareness of a lack of competence, contravenes the professional requirement to acknowledge our limitations (NMC, 2015). Thus the complexity of wicked problems and the influence of different perspectives are clearly evident with reasonable adjustment decisions.

Thus the findings illustrated that reasonable adjustments were bounded by educational setting which contradicted participants’ intentions to facilitate levelling of the playing field. Yet participants did not consider what alternative resolution was required or could be offered despite assertions that alternative support measures would be identified if a recommended adjustment was deemed unreasonable (section 4.15). Hence clearly education is required to increase stakeholders’ knowledge about alternative reasonable adjustments.

Resolutions to one issue often had a domino effect by generating problems in another area. For example when students were offered reduced practice hours, participants stated that students were then unable to access sufficient practice hours to achieve their NMC requirements, which impacted on their opportunity to demonstrate competence, particularly as adequate mentor contact was challenging (see section 5.3.2). As a consequence programmes of study may need to be extended and may require individualised schedules to facilitate the required duration of practice learning out with the usual programme flow. This was another
example where resolutions led to added problems, highlighting that one problem is a symptom of another (Rittel & Webber, 1973). The issue regarding the prescribed number of practice hours has been raised previously (Mallaber & Turner, 2006; RCN, 2017) and currently forms part of the NMC consultation on pre-registration nurse education standards (NMC, 2017). In reality the quantity of practice does not guarantee a quality experience to support students to achieve competence. However existing standards require students to complete 2300 hours in practice, a demand that can be difficult to meet for students requiring reasonable adjustments to the duration of their shift-patterns and practice hours to remove the disadvantages imposed by their disability.

The NMC advocate individualised support for students with disabilities. In fact, the NMC standards stipulate students’ individual needs must be considered when allocating practice experiences (NMC, 2010). However the logistics of organising student-centred practice experiences are influenced by the size of the student cohort, the type of placement required to meet European Union Directives, and/or the availability of practice environments and mentors. Again, deliberations about how to support students to meet NMC standards within the available practice resources are influenced by stakeholders’ knowledge of different practice settings, views about the reasonableness of the support requested to allocate to a specific practice setting when pre-determined competences have to be demonstrated, and stakeholders’ understanding of their legal obligation (Colon, 1997; Carey, 2012; Evans, 2014b). Akin to a wicked problem, depending on how this particular support recommendation is framed, tension may arise if it is perceived that students with disabilities are being advantaged through allocation to particular areas, which would lead to other problems (Rittel & Webber, 1973; Kreuter et al., 2004; Head, 2008; Beer & Lawson, 2017). Thus accessible, clear and precise guidance, with verified examples of how students can be supported to develop competence in different settings, is required.

Widely available, general guidance regarding commonly recommended reasonable adjustments for pre-registration nursing students in different settings is required.
This resource would offer programme providers and practice partners a starting point to open discussions and direct decisions about how to support students with disabilities in a bespoke manner while meeting the requirements of the NMC standards and the Equality legislation. Guidance must emphasise the importance of identifying individualised, student-centred support recommendations to meet each student’s unique needs (Wright, 2000; White, 2007). It is also essential to evaluate the effectiveness of the reasonable adjustments in supporting students to complete their pre-registration education. Although all Phase one participants agreed with this sentiment, only two could confirm that the evaluations were used to provide appropriate, context-specific, student–centred support throughout their programmes of study. Reviewing and evaluating support recommendations to facilitate suggestions for appropriate, available and effective reasonable adjustments, recognises that every student experience in each new class and practice learning environment is unique, and is a step towards being cognisant of the unique nature of wicked problems (Rittel & Webber, 1973; Kreuter et al., 2004; Conklin, 2005).

### 6.2.2 Reasonable Adjustments: Multifactorial and Value-laden

Reasonable adjustments should offer equal opportunity and fairness (Smith-Stoner et al., 2011, Carpenter & Paetzold, 2013) thus levelling the playing field for students with disabilities. Irrespective of this finding, participants acknowledged that reasonable adjustments were difficult to manage for a number of reasons as outlined below.

Several factors influenced the concept of reasonable adjustments and as a consequence, represented another characteristic of a ‘wicked’ problem (Rittel & Webber, 1973) detailed in Table 6.1 (p.199). Not only did the requirement to support students with disabilities encompass legal and political factors, there were substantial sociocultural, professional, strategic and operational considerations that needed to be addressed which involved several stakeholders (Kreuter et al., 2004; Fossey et al., 2017; Kendall, 2017).
By virtue of being a wicked problem reasonable adjustments are complex and multi-layered thus requiring deliberation at operational as well as strategic levels (Rittel & Webber, 1973; Conklin, 2005; Briggs, 2012). The data clearly illustrated attention to reasonable adjustments at an operational level. For example, operational factors included processes for identifying and implementing reasonable adjustments. Several stakeholders including AAAs, ADCs and PEFs were identified as being involved in the processes. However the focus was mainly operational probably because Phase two participants in particular were more likely to be involved at an operational level than a strategic level within an organisation. Yet, apart from reference to legal obligations and acknowledgement of other stakeholders including Occupational Health and Disability Services, there was limited evidence that participants considered reasonable adjustments at a strategic level.

Despite some Phase one respondents acknowledging that Heads of Nursing Departments may be involved in identifying support for students with disabilities, this was more likely in smaller departments where respondents held multiple roles. Otherwise, apart from the policies and procedures that were identified in the documentary analysis (sections 4.14) there was no obvious consideration of how the HEIs or their practice partner organisations planned, implemented or monitored strategies to ensure engagement with the legal and professional requirements to support students with disabilities across each organisation. Furthermore decisions about and responsibilities for reasonable adjustments were not routinely shared across and between settings and consequently student support was at best variable and often inconsistent. The findings demonstrated participants’ understanding with regards to responsibilities for identifying and implementing reasonable adjustments varied (section 5.3.1). Like other wicked problems, there were misunderstandings that resolution was the responsibility of someone else (Horn & Weber, 2007). In fact reasonable adjustments for students with disabilities are not solely the responsibility of the HEI, other stakeholders including partner practice environments and students share that responsibility (Conklin, 2005; Briggs, 2012).
Identification and implementation of reasonable adjustments requires programme providers and students to be cognisant of their responsibilities at departmental and organisational levels, as well as across HEIs and practice partner organisations e.g. NHS in the case of pre-registration nursing education. As well as students with disabilities, lecturers, mentors and patients at the micro-level: HEIs, practice placement providers, Government and Professional Bodies are involved at the macro-level (Gilbert, 2014). Within the data (Sections 4.9, 4.12, 5.3.1 and 5.4) many stakeholders were identified as directly or indirectly involved in facilitating reasonable adjustments for pre-registration nursing students undertaking education in the different programmes represented in this study. While there were similarities in the identified stakeholders, there were also clear differences depending on whether the support was to be implemented in academic or practice settings. The variety of stakeholders involved made organising reasonable adjustments a socially complex and thus a wicked problem (Bore & Wright, 2009; Head & Alford, 2015) particularly as the findings suggested an overall lack of collaboration between stakeholders.

As stakeholders view situations from their own perspectives, problems are subjectively framed depending on stakeholders’ attitudes, beliefs, experiences and values (Sharts-Hopko, 2013; Jordan et al., 2014) features which influence the culture of an area (Brooks, 2009; Alvesson, 2013). There was some attention afforded to sociocultural factors that influenced decisions about reasonable adjustments in the data. For example discussions about reasonable adjustments focussed on local decisions, which were clearly shaped by sociocultural and political factors. It was very apparent that while meeting the needs of students with disabilities is a legal obligation and professional requirement, as detailed in sections 4.15 and 5.2.2, stakeholders’ attitudes and values impact on their expectations and judgement about the suitability of people with disabilities to be nurses and their willingness to facilitate support. These findings reflect similarly reported experiences that the attitudes and understanding of academic and practice based staff impact on their responses to support requests, availability of support and consequently student performance if reasonable adjustments were not facilitated.
to minimise the disadvantage of disabilities (Wright, 2000; Morris & Turnbull, 2006; Crouch, 2008; Ridley, 2011; Sanderson-Mann et al., 2012). In fact, decisions about the reasonableness of support recommendations were significantly influenced by the perceived impact on patient safety, the reported primary objective in practice environments (section 5.2.2).

Some participants openly recognised that their views may differ from other colleagues. Consequently, as identified in the literature about wicked problems, the varied perceptions about disabilities and reasonable adjustments led to disagreements regarding the nature of the problem and potential solutions (Kreuter et al., 2004; Southgate et al., 2013; Jordan et al., 2014). For example accepting late starts in practice and facilitating lighter workloads were regarded as reasonable by some participants but not others. However the underlying problem was afforded limited attention by participants.

The findings suggested that there was evidence of students with disabilities being discriminated against because reasonable adjustments supported in some settings were not available in other settings. Discriminatory attitudes to students with disabilities are well documented (Christensen, 1998; Morris & Turnbull, 2007; Whiting, 2007; Zhang et al, 2010; Carey, 2012; Ashcroft & Lutfiyya, 2013; Carpenter & Paetzold, 2013; Shpigelman et al., 2016). In part limited knowledge and lack of understanding about disabilities and required support measures have been linked to discriminatory attitudes (Crouch, 2008; Griffiths et al., 2010; Child & Langford, 2011; Walker et al., 2013).

Thus to address the wicked problem, stakeholders need to collaborate to consider the multiple factors that influence reasonable adjustments and provide opportunities to explore different attitudes and values, as suggested by Howlin et al. (2014b). This would facilitate identification of the problem to help establish the best support resolutions for individual students within the different settings.
6.2.3 Reasonable Adjustments: Context specific

Wicked problems are context-specific (Rittel & Webber, 1973; Grint, 2008; Southgate et al., 2013; Jordan et al., 2014) and change depending on the context they are situated within (Krause, 2012; Beer & Lawson, 2017). Within pre-registration nurse education reasonable adjustments must be implemented within two main contexts: academic and practice settings. Within these broad categories the learning and teaching environments and strategies are also diverse. In the academic setting students are often exposed to lectures in large rooms, seminars and small group tutorials, and simulated activities in the skills lab. In comparison, in practice settings, students’ learning opportunities are usually experiential and observational in clinical and/or health and social care environments. Therefore at times in practice settings learning and teaching possibilities may be less structured than a lecture or tutorial in the HEI. Consequently ensuring access to support may not be as easy to plan in practice settings where impromptu learning opportunities arise.

The contexts are also diverse due to differing organisational factors (Krause, 2012; Head & Alford, 2015). As organisations, HEIs and their practice partners have different cultures, borne out of their respective beliefs and values, which will characterise how individuals in the organisation respond to different situations (Brooks, 2009; Leape et al., 2012; Muis et al., 2015). The resulting social pluralism adds further complexity when working across internal and external organisational boundaries because organisations tend to work in silos (Bore & Wright, 2009; Briggs, 2012). Separate and isolated working patterns to identify and implement reasonable adjustments were evident from the findings in this study. Consequently, the context in which reasonable adjustments were being considered influenced how the problem is framed and what adjustments may be regarded as reasonable. Solutions to wicked problems are regarded as good or bad (Rittel & Webber, 1973; Conklin, 2005; Grint, 2008). From the data some reasonable adjustments were evidently regarded as ‘good enough’ in certain contexts but were not acceptable in other settings. Indeed solutions to the problem were frequently not definitive often and may not be applicable in different settings or for another student with, by
definition, the same disability. One example was the use of a scribe to resolve issues with grammar, spelling and writing. Some students with SpLD may benefit from the use of a scribe, whereas others may prefer to make their own notes supported by a Livescribe pen which can be used to record what is being said as notes are being taken.

Despite a ‘scribe’ being a ‘good’ resolution for some students to manage difficulties associated with writing, this reasonable adjustment was readily offered by all HEIs in the academic setting, but it was not available in practice settings. Thus the difficulties were not resolved in the context of practice and so problems persisted for students. From some viewpoints, the presence of a scribe raised questions about preserving confidentiality in a care setting and consequently this reasonable adjustment was discounted for practice. However arguably medical secretaries scribe for healthcare staff without the issue of confidentiality being raised. Therefore the practicalities of using a scribe as a reasonable adjustment in practice needs to be explored in more detail to establish what, if any, issues may arise, so a sound rationale for refusing a scribe in practice can be delineated.

The availability of the scribe was bounded by the organisational context. This was despite the NMC requirement for student nurses to be competent in record keeping (NMC, 2010). Consequently, akin to wicked problems, reasonable adjustments to support students with grammar, spelling and writing difficulties were not overtly considered for practice, although the problem still existed. However alternative support strategies can and should be offered to enable students to address the difficulties experienced with writing. Alternative support measures have already been identified in the literature. For example medical/nursing spellcheckers and dictionaries, abbreviation booklets, proof reading by mentors and proof reader software on computers as well access to a quiet area to complete documentation are recommended adjustments that can be used in practice settings (Halligan et al., 2015).
Similar to previous assertions that adjustments may vary between settings (Storr et al. 2011), the findings clearly illustrate support in academic settings differed to support in practice settings and this dichotomy was recognised and accepted by participants. It was acknowledged that reasonable adjustment recommendations generally focussed on the academic context, which appeared to be an established practice. There were very few examples offered where participants addressed the lack of recommended reasonable adjustments for practice settings, despite recognition that some recommendations are only required to be considered in the context of the location that the support was required. For instance accessible document formats, assistive software and digital technologies are recognised reasonable adjustment for people with dyslexia (BDA Technology, 2015). Hutchings & Quinney (2015) acknowledged HEIs are engaging with mobile and digital technologies to enhance student experiences of learning and teaching. Unsurprisingly the findings illustrated assistive software was available in all participating HEIs. However, only two participants identified assistive software as a reasonable adjustment within practice settings. Participants suggested the inconsistent availability of recommended support was due to lack of computers available to student nurses due to limited resources, data protection and governance policies.

It was also suggested that interpretation of the policies as well as attitudes of practice staff towards and understanding of the need for assistive technology as a reasonable adjustment impacted on support availability. It would appear that the situation has not changed in the decade since White (2007) reported limited availability of Information Technology to support students in practice. Personal views influence stakeholders with regards to what is deemed fair and reasonable. The intention to provide equity and fairness is undermined due to stakeholders’ beliefs and practices, which further reinforced the wicked nature of the problem (Rittel & Webber, 1973; Conklin, 2005; Grint, 2008).

Wicked problems cannot be tackled if existing routine practices are not questioned or challenged (Hutchinson et al., 2015). Therefore it is necessary to unravel why
support measures effective in the academic setting are not available in practice settings, particularly as students’ performance and progression will be affected. Thus open communication and efforts to understand different stakeholders’ perspectives are required so that collaboration and partnerships can be generated (Bore & Wright, 2009; Southgate et al., 2013; Gilbert, 2014; Jordan et al., 2014) within programme teams, and across the wider pre-registration nursing education population.

With the exception of two HEIs that involved ADCs in identifying reasonable adjustments for practice, few other academic participants contributing to this study identified any forms of support for students in practice because they felt they did not have sufficient awareness of the diversity of practice settings to make appropriate recommendations. This was despite recognition that all academic staff were registered nurses who had experience of practice settings, and in some HEIs academic staff were link tutors for particular practice environments and therefore would have knowledge of recommended reasonable adjustments in that setting. The overall lack of engagement from academic staff in making recommendations for practice was contrary to the process of involving academic staff, educators and students endorsed by Botham & Nicholson (2014). Similarly there is evidence that collaboration and commitment by all stakeholders, including students results in effective support for students with disabilities in practice settings (Howlin et al., 2014b). Indeed the involvement of students was highly recommended by Howlin et al. (2014b) because students are likely to be aware of their own strengths and weaknesses.

The literature surrounding reasonable adjustments clearly identified that the individual experience of disability merits student-centred, individualised support measures suitable to different contexts (Sanderson-Mann & McCandless, 2005; Morris & Turnbull, 2006; Griffiths et al., 2010; Ridley, 2011, McPheat, 2014). Thus similar to a wicked problem, every request for reasonable adjustments is in essence, unique and new (Rittel & Webber, 1973; Conklin, 2005). Therefore although there can be experiential learning and “case law” (Dickson, 2007) which
can contribute to discussions about potential resolutions to support requests to meet the needs of students with disabilities, each situation introduces a novel exposure (Conklin, 2005). Arguably, there is an analogy between student-centred support and the drive in nursing to deliver person-centred care. Chapman (2017) stated experiences of care depend on the nurse-patient relationship, partnership and recognition of patients’ concerns, wants and views about their care. Likewise student-centred individualised support requires input from all stakeholders, including students, to establish needs, wants and opinions about available reasonable adjustments. However, the fact that some students with disabilities are not afforded individuality, and like other wicked problems there is a naïve assumption one type of support will be effective for everyone with a certain disability (e.g. SpLD), indicates a degree of hypocrisy in nursing.

The need for collaborative working to discuss and identify appropriate and individualised reasonable adjustments to meet students’ support needs in the practice environment has certainly been well documented (Child & Langford, 2011; Elcock, 2014; McPheat, 2014). Collaborative and coordinated efforts by stakeholders can offer opportunities to share experiences and focus on meaningful resolutions rather than disparate and separate activities (Conklin, 2005; Southgate et al., 2013). In fact, critical dialogue to decipher the potential consequences of proposed reasonable adjustments on individuals, resources and the environment (Southgate et al., 2013) facilitate opportunities to negotiate and agree resolutions to wicked problems (Conklin, 2005; Krause, 2012; Varpio et al., 2017). Grint (2008) advocated that collective intelligence and shared responsibilities were required to address wicked problems. Although there was some evidence of partnership working in the findings from Phase one (chapter 4) and several Phase two participants acknowledged the importance of collaboration (section 5.3.1), unfortunately few specific examples of collaboration between stakeholders from academic and practice settings were provided by the participants in this research. Thus there is an immediate need to apply the recommendations for collaboration and shared responsibilities to address the wicked problem of reasonable...
adjustments, so as to develop and foster partnership working between HEIs and practice partners, and across pre-registration nursing education.

Having discussed how and why reasonable adjustments exhibit defining characteristics of a wicked problem, the next section will examine the dichotomies that effect reasonable adjustments in pre-registration nursing education in Scotland. The purpose of discussing the dichotomous nature of reasonable adjustments is to reinforce the theory that they are a wicked problem.

6.3 Dichotomies that influence Reasonable Adjustments

Reasonable adjustment is a complex and fluid concept due to the numerous stakeholders involved, different contexts, and difficulty defining and resolving the issue. This contributes to the wickedness of the problem (Rittel & Webber, 1973; Kreuter et al., 2004; Conklin, 2005; Head, 2008; Butler, 2013; Rolfe, 2014; Head & Alford, 2015; Beer & Lawson, 2017; Lamentowicz, 2017). Part of the challenge with reasonable adjustments is that there are several contrasting aspects that influence peoples’ understanding and application of the concept. In the following subsections several dichotomies influencing reasonable adjustments in pre-registration nursing education are analysed. These dichotomies include:

1. Higher Education Institution (HEI) v Practice setting
2. Student Nurse v Employee
3. Disclosure v Non-disclosure
4. Safety v Risk

6.3.1 Higher Education Institution (HEI) v Practice

Pre-registration nursing education comprises 50% theory and 50% practice (NMC, 2010). The majority of theory is delivered in HEIs and the majority of practice is undertaken in practice environments, for example hospitals, clinics, community
settings and third sector organisations. Programme providers are required by law (Equality Act, 2010) and professional obligations (NMC, 2010) to provide anticipatory reasonable adjustments in both education settings. It was very apparent from the findings while there was awareness of the need to offer reasonable adjustments, there were huge variations and inconsistencies applied when practitioners identified, implemented and evaluated the effectiveness of reasonable adjustments across and between programme providers in Scotland. Participants suggested academic staff were more flexible than practice based staff when offering support to students with disabilities. This is akin to suggestions in the literature that academic environments are more flexible than practice settings when supporting students (Tee & Cowen, 2011; Hargreaves et al., 2014).

In contrast the willingness for mentors in practice to bend over backwards suggested that professional standards could be compromised. For example, as outlined in section 5.2.2, participants reported compensation was made for students with disabilities particularly when mentors were unsure about what constituted a reasonable adjustment. It was also suggested that students with disabilities were advantaged through their reasonable adjustments because support was at times judged to be potentially excessive. In fact, although perhaps not intentional, assessment of levels of competence were believed to be altered. Examples offered included students’ abilities to respond in an emergency (page 184), numeracy with or without calculator use (page 159), and communication using a telephone (page 162). This suggested that some students were able to be assessed as competent in particular standards when in fact the level of support offered was ‘unreasonable’ by other people’s understanding of the pre-registration criteria. Concerns about the impact of altered assessment criteria or perceived achievements at a lower standard have been raised previously in the literature (Walker et al., 2013; Hargreaves et al., 2014; Evans, 2015). Thus the varied resolutions provided based on the stakeholders’ differing views about demonstrating competence were commensurate to wicked problem characteristics (Rittel & Webber, 1973; Conklin, 2005).
Generic competences and field-specific competences must be demonstrated to register as a nurse eligible to practise in a specific field of nursing (NMC, 2010). Participants were evidently aware that the levels of competence set in the NMC standards must not be altered because the specified competences are a measure of a person’s ability to meet NMC requirements for nursing registration. However as a consequence of the perceived willingness of some mentors to offer unwarranted levels of support, there may be situations of ‘Failure to fail’ (Duffy, 2003) in practice settings when mentors give students the ‘benefit of the doubt’ when there were reservations about a student’s level of performance.

Reflecting on the potential for failure to fail, it was apparent from participants that role-associated tensions were experienced by academic staff and mentors. Casey & Clark (2011) previously acknowledged mentors endure tensions between their supportive role and the need to be an objective assessor. Likewise Evans (2014b) suggested tension arose between the nurse as mentor and the nurse as carer. Nurses have inherently caring qualities which motivate their desire to support students to be successful. Participants recognised that because mentors cared for students, they frequently offered every support possible to assist students to succeed. Thus the objectivity required from an assessor was potentially compromised particularly when mentors felt pressure to ensure students achieved their learning outcomes while mentors were trying to manage competing workload demands. In fact, similar to findings reported by Kendall (2017), participants stated that decisions about reasonable adjustments and student assessment were influenced by concerns about discerning what support was ‘reasonable’ as well as fears of being discriminatory. These findings reinforce the wickedness of reasonable adjustments due to the subjectivity that may result in a failure to fail situation. Worryingly, there are moral and ethical issues associated with misleading students about their abilities through their education which must be considered, especially when students may not be fit for practise as a registered nurse on completion of a minimum of three-years of study.
The findings from this study illustrated stakeholders’ expectations of students differ depending on their attitudes, experiences and values. It has been acknowledged that students must be made aware of the expectations of them at different stages of their education within different contexts (Child & Langford, 2011). Thus, during preliminary discussions in practice between students and mentors, expected levels of performance should be discussed and learning opportunities identified to facilitate students working towards competence. At this time mentors should provide students with the opportunity to discuss their preferred approaches to learning, and support measures the student may require. Regular feedback should also help students gauge how they are progressing, and how this compared with the expected levels of performance. Moreover open and critical discussions about support measures are required to identify and agree reasonable adjustments for students in the different contexts. Arguably, discussions are especially important in practice settings so that all stakeholders understand their responsibilities for the provision and evaluation of support, and expectations of students’ level of performance are clearly outlined. These findings corroborate the conclusions from Nolan et al. (2014) that discussions should be informed by evaluation and review of the effectiveness of reasonable adjustments in meeting the support needs of individual students with disabilities at each stage throughout their programme of study.

Access to support in Scottish academic settings is reportedly straightforward and routinely offered for students who disclose disabilities. However this is not the case in many practice settings. General guidance about support for students with disabilities provided by HEIs is applied in the academic setting. However similar to the findings of Ashcroft & Lutfiyya (2013), this study has revealed while the guidance accessed may provide examples of types of reasonable adjustments for different disabilities, rarely was reasonable adjustments explained in the context of practice or suggestions of support made that could be offered in different practice settings. Previous research undertaken in England that found the focus of reasonable adjustments was mainly on academic support by highlighting mentors required education to raise awareness of the types of reasonable adjustments that
could offered in practice to meet students’ individual support needs (Wright, 2000; Morris & Turnbull, 2006; Stanley, et al. 2007; White, 2007; Tee et al., 2010; Child & Langford, 2011). Although the other studies concentrated on the practice setting experiences of students with disabilities (Griffiths et al., 2010; Tee et al., 2010; Howlin et al., 2014b) many focussed on students with dyslexia (Morris & Turnbull, 2006; White, 2007; Crouch, 2008; Child & Langford 2011; Ridley, 2011; Sanderson-Mann et al., 2012; McPheat, 2014). However the findings from this study have added to the knowledge about the challenges associated with accessing support in practice because the data originated from the experiences and perceptions of different stakeholders (AAs, ADCs, and PEFs).

Although research about students with disabilities is increasing, research into reasonable adjustments for nursing students, and indeed healthcare students, is relatively new (Dickens et al., 2016). It is clear that differences between HEIs and the diverse practice experiences required of students contribute to the differences in support available (Sanderson-Mann et al., 2012). Sections 4.9, 4.12 and 5.3 provide evidence that there is awareness of which stakeholders should input into decisions about support for students with disabilities. However one particular reason for the problem is certain reasonable adjustments readily accepted and expected in academic settings are not appropriate or ‘reasonable’ in practice (Griffiths et al., 2010; Tee et al., 2010; Wray et al., 2012; Hargreaves & Walker, 2014; Hargreaves et al., 2014). By virtue of being a wicked problem, challenges exist when offering reasonable adjustments for students with disabilities. Without consideration of the potential consequences of not securing similar or alternative support in every context of pre-registration nurse education, agreeable resolutions will not be reached.

There is clear, albeit limited, evidence from this study that collaborative working can begin to address the dichotomy. Partnership working has already been highlighted as successful in other research. Griffiths et al. (2010) reported the success of a tripartite approach with stakeholders to plan and review support in practice, and evaluations of the role of Student Practice Learning Advisors (SPLAs)
(Tee et al., 2010) were also positive. The involvement of stakeholders to complete clinical needs assessments and identify reasonable adjustments for practice settings is also recommended (Howlin et al., 2014a, Howlin et al., 2014b). Following a systematic review of the literature, Dickens et al. (2016) have also proposed a Student-Centred Reasonable Adjustments Model (SCRAM). The model clearly identifies the various stakeholders required to engage in the process of identifying reasonable adjustments, and students are central to the model. Arguably students are often very aware of their strengths and limitations and what strategies may address the disadvantages caused by their disabilities (Morris & Turnbull, 2006; Crouch, 2008; Murphy, 2011; Ridley, 2011; Howlin et al., 2014a; Hill, 2015). Therefore, students should be identified as key stakeholders and be central to discussions and decisions about individualised, student-centred reasonable adjustments.

Collaboration and partnership working can be developed locally to minimise the contrast between reasonable adjustments between academic and practice settings. Horn & Weber (2007) suggest that resolution mapping can help stakeholders to identify resolutions and establish who is responsible for the implementation of the resolutions. However effective leadership is required to facilitate the process (Grint, 2008). Based on the HEI and practice partner arrangements in Scotland, (see Appendix 1, p. 298) it is also possible to promote regional and national collaboration to identify resolutions that will lead to agreement about the merits of reasonable adjustments in pre-registration nursing education (Griffiths et al. 2010, Child & Langford, 2011; Tee & Cowen, 2012; McPheat, 2014; Dickens et al., 2016) to reduce the wickedness of this problem (Bore & Wright, 2009; Southgate et al., 2013; Gilbert, 2014; Jordan et al., 2014).

6.3.2 Student Nurse v Employee

HEIs and practice partners have a legal obligation and professional requirement to offer support through reasonable adjustments to students and employees (e.g. registered nurses and nurse lecturers). The findings from this research confirmed a
clear tension between meeting legal obligations and professional requirements, particularly when supporting students with disabilities in practice. Differences of opinion with regards to who is responsible for identifying and implementing reasonable adjustments were evident. There was a view from academic staff their responsibilities related to supporting students with disabilities only within the HEI, and limited responsibility while students were in practice, and no responsibility or obligation once students registered with the NMC. Interestingly, under employment law, students undertaking practice learning experiences are regarded as employees and therefore practice partners are responsible for students’ health and safety (Health and Safety Executive, 2017). Nevertheless practice-based staff saw students as the responsibility of academic staff and as such the HEI was responsible for identifying and implementing reasonable adjustments. However as articulated by some participants, staff working in each context were more likely to know and understand what support could be reasonable in the specific contexts.

There were differences in opinion regarding reasonable adjustments for students and registered nurses as employees. In part this was influenced by role expectations, resources required when implementing reasonable adjustments, and for instance consideration of the length of placement as opposed to permanent employment. Requests for reasonable adjustments can be refused when there are excessive costs, negative impacts on others, or adjustments are considered impractical (Equality Act, 2010; Storr et al., 2011). Participants envisaged they could access advice and support with decisions about reasonable adjustments in different contexts. In fact there were expectations of what different stakeholders should contribute to the identification and implementation of reasonable adjustments. Unfortunately such expectations did not reflect the reality experienced by participants.

Although it was anticipated that advice and support about fitness to practise and reasonable adjustments could be accessed from Occupational Health Departments (OH), there were differing opinions regarding the role of OH in the context of students compared with employees. According to Howlin et al. (2014a) liaison with
OH was necessary in some circumstances, for example enduring illnesses and physical disabilities, to confirm that reasonable adjustments were appropriate to meet students’ support requirements and preserve patient safety. Occupational Health appeared to assess the suitability of students with disabilities, to participate in a programme of study including practice learning. However from some participants’ experiences, OH seemed to focus mainly on fitness from a broad perspective and therefore did not assess suitability for gaining experience in a particular practice setting, as would occur when assessing employees. Thus the challenge of identifying reasonable adjustments ensued resulting in additional problems, akin to other wicked problems (Rittel & Webber, 1973; Conklin, 2005).

Registered nurses as employees made conscious decisions regarding where they wished to work in acknowledgement of their knowledge, skills and awareness of their capabilities. Participants discussed the benefits of offering bespoke programmes of study to students with disabilities. Nevertheless NMC requirements currently include the need for students to meet EU directives, such that they need to engage in a diversity of practice learning opportunities, which may not be where they would choose to work once employed. Thus students are expected to demonstrate competence in areas of practice they may never work in. This could potentially be discriminatory especially if appropriate and effective reasonable adjustments cannot be identified or implemented in those particular contexts, coupled with a lack of flexibility with regards to the practice environments students must visit (Hargreaves et al., 2009; Sin, 2009; Nolan et al., 2014).

Employees have the opportunity to be re-deployed. A practical resolution to this issue for students with disabilities may be to generate bespoke programmes of study. Programme providers therefore need to collaborate to explore the feasibility of offering tailored programmes of study to facilitate achievement of competence and completion of NMC requirements. Thus, consideration should be given to offering bespoke programmes for entry onto the nursing register that would reflect achievement of agreed specific competences in a particular field and area of nursing practice. To facilitate tailored programmes or bespoke entry to the register,
close consideration would have to be given to the logistics of meeting students’ needs in both academic and practice settings. Interpretations of competence and acceptable adjustments to learning outcomes to facilitate preparation for registration and practice within a specific area of nursing would also have to be explored. For example, increased adoption of universal design for learning would provide more options for students to engage with learning and teaching as an individual. Closer deliberation of the diversity of practice settings offering learning opportunities to achieve competence could afford students the chance to access those environments better able to meet their specific needs through support that could minimise the disadvantages stemming from their disability. This proposal fits with reports that certain students prefer specific types of practice learning (Morris & Turnbull, 2006). In fact, consideration of what practice settings are available to support students to meet their specific needs is an example of a ‘clumsy’ solution to a wicked problem. Grint (2008) describes a ‘clumsy’ solution as a pragmatic approach using the resources available to stakeholders.

One of the biggest challenges within this student nurse versus employee dichotomy, is the diverse interpretations and understandings of competence and what types of support can reasonably be offered. In section 5.3.2 participants detailed suggestions that reasonable adjustments should vary and be fluid throughout a nurse’s career but there were no guarantees that support provided for a student would subsequently be available once they became a registered nurse. One particular example plainly evidenced a situation where a registered nurse who had received support as a student was unable to cope in practice once qualified. Consequently questions were raised about the person’s fitness to practise because their performance was subsequently not meeting the level of performance expected of a registered nurse (p. 183). Although not explored in more detail at the time of data collection, by implication it would appear during their time as a student the individual may have received ‘unreasonable’ levels of support, the assessment criteria for some competences may have been adjusted, and/or there was a ‘failure to fail’ situation (Duffy, 2003).
While academic staff supported students to complete their programme of study to be eligible for NMC registration, practice based mentors tended to consider whether a student with a disability was likely to be fit for practise as a registered nurse. The mentors’ concerns mirrored the apprehension of practice educators (Sanderson-Mann et al., 2012; Ashcroft & Lutfiyya, 2013; Hargreaves et al, 2014; Nolan et al., 2014). Consequently attitudes towards reasonable adjustments and expectations regarding students’ performance compared with registered nurses’ performance varied. Thus, according to Hargreaves et al. (2014) the dichotomy between expectations of students compared with employees is difficult to moderate.

In the findings sections 5.2.2, 5.3.2 and 5.5 there were several examples of situations (e.g. shift patterns and workload, and responding to an emergency) where employees would not be afforded the same level of accommodation as students, which may influence employees decisions about their place of employment. For instance, while some participants interpreted that students needed to be able to physically respond in an emergency, for example by initiating first aid or starting CPR, others believed competence could be evidenced through appropriate and effective delegation. Shrewsbury (2015) supported the view that students with physical disabilities can demonstrate competence by directing others. However, similar to other wicked problems, this resolution does not address the situation if there is no-one immediately available to delegate to and/or it is difficult to raise the alert. Thus other problems arise with patient safety for example, and expectations, particularly from the public, that nurses will be able to respond appropriately to situations.

Another example of inconsistent accommodations relates to medicines administration. Students were only required to complete a partial medication round (i.e. administer medication to a small number of patients) to be assessed as competent, whereas registered nurses in some practice areas need to complete the medication round for all patients in a timely manner. Thus it is envisaged that medicines administration will be completed accurately, safely, and in a timely
manner in keeping with recommended procedures in accord with *The nine rights of medicine administration* (Elliot & Lui, 2010). However, offering extra time and reducing the level of activity as a reasonable adjustment for a student was more readily accepted than if a similar allowance was made for a registered nurse with similar support needs.

Depending on stakeholders’ opinions and understanding of the potential problems associated with supporting students with disabilities, suggested resolutions can be extremely variable (Rittel & Webber, 1973; Conklin, 2005). As a consequence the student experience was affected. Where support was not provided students’ progress and their ability to meet assessment criteria were impacted on. Reasonable adjustments should be evaluated and reviewed at each stage of the students’ education, and consideration should be given to whether the same support will be available during their future career (Wray *et al.*, 2005; Griffiths *et al.*, 2010). Given the numbers of stakeholders that need to invest time and effort to meet the legal obligations and professional requirements in order to offer reasonable adjustments to students with disabilities, HEIs and practice partners have to recognise their shared responsibility when supporting such students. However as the findings revealed and as detailed in the literature (Morris & Turnbull, 2006; Crouch, 2008; Child & Langford, 2011; Evans, 2015), student-centred reasonable adjustments can only be offered if a student opts to disclose a disability.

### 6.3.3 Disclosure v Non-disclosure

A significant dichotomy exists with regards to the issue of disclosure or non-disclosure. Disclosure is not just the act of telling others about a disability, it relates to a person’s view of their disability and the context in which the disclosure is considered (Evans, 2014b; Evans, 2015). There is no legal obligation for students with disabilities to disclose (Morris & Turnbull, 2007; Wray *et al.*, 2012; Howlin *et al.*, 2014). While it was acknowledged by participants that disclosure of a known disability was a choice, clearly there was an expectation students would disclose,
and would do so prior to commencing their programme of study. Participants in this study stated the honesty of students who initially opted not to disclose disabilities had been questioned by mentors. Hence lack of disclosure raised real concerns about the students’ character. Likewise McPheat (2014) asserted students should disclose because it demonstrated honesty.

According to Konur (2002) and Storr et al. (2011) HEIs have a right to know about students’ disabilities before implementing individualised support plans, a sentiment mirrored by several participants. Timely disclosure would permit programme providers to plan students’ individual support requirements, while also meeting their anticipatory duty to make reasonable adjustments (Stanley et al. 2007; Equality Act, 2010; Stanley et al., 2011). In order to support students participants advised that HEIs and practice partners would want to know about students with disabilities but this has to be balanced with the students’ right to confidentiality (Hargreaves et al., 2014).

Sections 4.9, 4.10 and 5.4 highlighted disclosure processes for the majority of students were well established through the UCAS admissions system. Disclosure occurring outside of this process was ambiguous and variable. Participants accepted that the majority of students will disclose their disabilities to staff in the academic setting, a belief reflected in the literature (Morris & Turnbull, 2006; Ridley, 2011). Overall participants believed they should support students to disclose their disability and/or support needs to staff in practice settings, which was aligned with the recommendation by McPheat (2014), but pre-registration nursing education processes did not permit this due to data protection. Although the academic staff were sent or had access to support recommendations these were not routinely shared with practice staff. This finding was contrary to the perceptions that local policies endorsing disclosure between HEIs and practice partners existed (Elcock, 2014).

Participants offered examples of what have been termed ‘Embracers’, ‘Resisters’ and ‘Passive Engagers’ (Evans, 2014a) among students and identified situations
where disclosure was proactive or reactive (Hargreaves et al., 2014). Although ‘resisters’ choose not to disclose, they may be forced to disclose when issues arise in theory or practice (Sanderson-Mann et al., 2012; Hargreaves et al., 2014). As highlighted in section 5.4, late or forced disclosure caused more issues, such as a safety concern because risk assessments had not been completed. Additional problem generation is an inherent property of wicked problems (Rittel & Weber, 1973).

‘Half-way house’ disclosure is a phrase that has been coined to explain disclosure that has been made available in HEIs but not readily shared with practice (Evans, 2015, p. 384). This was a custom prevalent in most Scottish HEIs targeted as part of this study. Participants accepted this lack of information sharing, while justifying such actions given the support recommendations were mainly academically focussed. Nolan et al. (2014) reported similar findings from their survey research regarding concerns about supporting students with disabilities on placements in the Republic of Ireland. To address the imbalance some ADCs managed this situation by adding reasonable adjustments for the practice setting to student support recommendations. Nevertheless, processes outlined in this study required students to be responsible for disclosure in practice despite suggestions by participants and proposals in the literature that students should be supported to disclose to mentors (Griffiths et al., 2010; Child & Langford, 2011).

As detailed in section 5.4, academic staff were unaware whether disclosure had taken place in practice unless they were contacted to support a student experiencing difficulties in practice. The literature has clearly established reasons why students with disabilities were less likely to disclose in practice particularly when disclosure had to be repeated on numerous occasions in different practice environments (Morris & Turnbull, 2006; Morris & Turnbull, 2007; Griffiths et al., 2010; Howlin et al., 2014b) to several different people with the probability of various different reactions (Brown et al., 2006; White, 2007; Ridley, 2011; Sanderson-Mann et al., 2012; Evans, 2014a; Nolan et al., 2014). A clear example of diverse reactions related to students with mental health issues. Ashcroft & Luftiyya
(2013) found mental health nurses to be more positive than nurses from other fields of practice but this was not the reported experience of participants when discussing disclosure (section 5.4). Participants relayed that while students with mental health issues anticipated they would be well supported on disclosure of their mental health issues, the reality was quite different.

Lack of disclosure was very much linked to attitudes, perceptions, fear of discrimination, stereotyping, stigma and students’ identities, examples of which were provided by participants. These findings from Scottish pre-registration nursing education echo previous research findings (Wright, 2000; Morris & Turnbull, 2007; White, 2007; Crouch, 2008; Hargreaves et al., 2009; Child & Langford, 2011; Stanley et al., 2011; Sanderson-Mann et al., 2012, Evans, 2014a; Evans, 2014b). Thus this study corroborates earlier findings and adds to the body of knowledge by demonstrating that lack of disclosure by pre-registration nursing students in Scotland akin to other students in the UK and Ireland.

Nevertheless, when academic staff furnished practice based staff with details of a student’s support needs, stress associated with disclosure diminished (Howlin et al., 2014b). However when students opted to request support without disclosing a disability, participants reported that others reached their own conclusions about what was the underlying motivation for the support request. Decisions not to disclose resulted in an absence of required support which compromised achievement of necessary competencies. Students adopted their own support strategies which were not always appropriate, and generated potential problems for students including delayed progression on their programme. Morris & Turnbull (2006), Crouch (2008), Murphy, (2011) previously acknowledged that self-selected strategies could be inappropriate and maladaptive particularly if students avoided certain activities. This issue was raised by participants who acknowledged similar situations of avoidance, e.g. not answering a telephone. Lack of disclosure and strategies adopted to manage difficulties evidently can introduce other problems due to ineffective resolution of a wicked problem. In fact, participants flagged
situations that resulted in concerns about potential risks to safety which is the focus of the fourth dichotomy.

Several factors influenced decisions to disclose (section 5.4) and consequently caused tension (Nolan et al., 2014). One of the key factors which influenced the decisions was identity (Riddell & Weedon, 2014b; Evans, 2014b; Evans, 2015) and the associated impact of labelling. People with invisible disabilities have more choice about whether their disability features in their identity (Riddell & Weedon, 2014a). However it has been asserted many individuals with disabilities object to being identified and labelled according to the classification determined by disability legislation (Illingworth, 2005), particularly if they do not consider themselves disabled (Kolanko, 2003; Sanderson-Mann & McCandless, 2006; Stanley et al., 2007; Murphy, 2011). Seccombe (2007) affirms the notion of individuality is not sustainable when labelling is adopted, a view upheld by Matthews (2009) and previously recognised by Moore (2004). Participants reported examples where students had experienced negative attitudes, discrimination and stigma due to being labelled. These incidents highlight that the medical model of disability is still very apparent in Scottish pre-registration nursing, a fact which caused other problems for the students with regards to their identity, how they were treated, the opportunities they accessed and the support that was available. These experiences also influenced future decisions about disclosure (Evans, 2015).

It was established that generalised information about support for students with disabilities was readily available in Scottish HEIs. As information about support was not programme specific and tended not to offer details about the practice settings, students were unaware of the benefits of disclosing in practice and were reportedly unlikely to know what support measures could ‘reasonably’ be offered in diverse practice settings. Lack of exploration of individual student’s needs, and apparent generalised approaches to support recommendations which may not be applicable in a practice setting, compounds the issue concerning ineffective support and resulting lack of disclosure. Again these findings imply that Scottish pre-registration
nursing education approaches disability support through the lens of the medical model.

However there is some evidence of approaches that reflect the social model of disability. Ashcroft & Lutfiyya (2013) and Howlin et al., (2014) have identified students would rather the focus was on identifying support measures to reduce the impact of their disability on learning rather than focussing on the disability per se. Participants acknowledged strategies that assisted with this change in focus. For example virtual learning environments can store learning and teaching materials in advance of classes in different formats for students to select their own preference to meet their needs. The availability of assistive software and the provision of commonly used abbreviations and terms in practice areas also benefit all students. These inclusive approaches to learning and teaching are recognised as ways to remove difficulties caused by disabilities that may impact on students’ performance and promote successful completion of their programme of study (Carey, 2012; Layer, 2017).

The educational framework universal design for learning permits adaptation to individual learning styles (Evans, 2014a), increases opportunities to integrate students with disabilities and lessens the experience of being different (Evans, 2015) so that fewer reasonable adjustments would be required. Inclusive practices and universal design should be provided to promote equal opportunities for students with disabilities (Hargreaves et al., 2014; Howlin et al., 2014). Aspects of inclusive curriculum, which is designed to enable access by everyone regardless of their learning preferences, and universal design, fulfil the anticipatory reasonable adjustments duty held by HEIs (Layer, 2017). However the need for disclosure for some students may be nullified if the student’s support needs are being met by the inclusive curriculum and universal design. For example, students with disabilities who have developed strategies to promote their abilities and independently manage the aspects of their learning impacted by their disability can access support available through the inclusive curriculum and universal design without disclosing their disability. In addition, several authors have suggested that good mentorship in
a positive learning environment can also enhance support for students with disabilities, reduce the need for specific reasonable adjustments and ensure legal obligations are met (Morris & Turnbull, 2007; Child & Langford, 2011; Wray et al., 2012; Wray et al., 2013).

Although inclusion is a potential resolution to a wicked problem, unfortunately the findings indicated that while an inclusive curriculum and universal design has been incorporated in many HEIs, they are not readily available in many practice areas. Indeed it must not be forgotten inclusivity has already been identified as a wicked problem (Butler, 2013; Martyn, 2014; Varpio et al., 2017). According to Carey (2012) it is particularly challenging to offer an inclusive curriculum for nursing education which is described as directive and didactic due the demands to meet professional requirements. The culture of nursing education needs to change (Hargreaves et al., 2009) to permit a more flexible approach that is open to diverse ways of learning and teaching. However it is important to be aware the various stakeholders that contribute to pre-registration nursing education come from different organisational cultures: not just HEI and practice, but also localised cultures. Therefore to facilitate cultural change, the different cultures need exploring to establish the perceptions about students with disabilities and their required support. Once this information is available, a resolution would be to challenge and amend misperceptions (Schein & Schein, 2017)

6.3.4 Safety v Risk

Patient safety is the primary focus of healthcare (Tingle, 2013). Patient safety and the perceived potential risks from students with disabilities has been reported regularly in the literature (White, 2007; Crouch, 2008; Carey, 2012; Sanderson-Mann et al., 2012; Ashcroft & Luftiyya, 2013; Evans, 2014a; Walker et al., 2013; McPheat 2014). There are also misconceptions that students with disabilities, particularly dyslexia, are more likely to make mistakes (Child & Langford, 2011; Walker et al., 2013) although students with disabilities tend to be more self-aware
and vigilant to minimise the risk of errors (Morris & Turnbull, 2006; Crouch, 2008; Ridley, 2011, McPheat, 2014).

Tension arises, predominantly in practice, when trying to meet the support needs of students with disabilities. The findings illustrated mentors experienced challenges managing workload, especially when a student’s level of support was particularly demanding (section 5.5). Again, in keeping with the literature (Sanderson-Mann et al; 2012; Nolan et al., 2014), the notion of support remaining ‘reasonable’ was presented, not only to ensure safe practice by the student but especially to promote patient safety. Participants offered examples where expectations of students did not equate to the expected performance of registered nurses, as outlined in section 6.3.2. This was despite concerns about how well students would make the transition to registered nurse.

The wickedness of the problem was further reinforced when the availability of recommended reasonable adjustments was diverse and varied. As outlined in section 6.3.1 the contrast in resolutions suitable or practicable in one setting as opposed to the other was stark. It was concerning to find there was little evidence of alternative support measures being explored, leaving students to fend for themselves. The potential risk of error with documentation for example, was highlighted by participants although the need to put this risk in perspective with regards to the potential impact on safety was also reinforced. Failure to consider alternative reasonable adjustments risks programme providers being held accountable for failing to meet their public sector duty (Equality Act, 2010).

Similar to other wicked problems, the stakeholders’ attitudes and perspectives had a significant influence on the perceived problem and its potential resolution. Risk aversion was an influencing factor when decisions were taken about the feasibility of supporting students with disabilities in a particular context. Although students were working towards competence under supervision, concerns regarding potential safety risks impacted on peoples’ willingness to offer students the opportunity to learn from experience. Crucially academic staff and mentors needed to distinguish
actual as opposed to potential risks to patient safety (Walker et al., 2013); what Ashcroft & Lutfiyya (2013) deemed less serious ‘learning encounters’ or more serious ‘safety encounters’. The latter would ensure students with disabilities accessed appropriate learning opportunities with effective support and minimal risk (Walker et al., 2013; Hargreaves et al., 2014; Howlin et al., 2014). Otherwise there was a danger students would be provided with limited opportunities to learn due to excessive risk aversion. This is similar to the significance associated with every experience within a wicked problem (Rittel & Weber, 1973; Conklin, 2005) Thus it is essential that risk assessments are completed to verify the level of risk and potential impact on safety posed by students with disabilities so that appropriate resolutions are identified.

Curiously, despite participants discussing risk and safety implications, only one respondent acknowledged involvement of the mentor in risk assessments about the practice setting (section 4.9). Thus decisions about risk and patient safety were being taken by stakeholders who may not have the necessary local knowledge to provide a fair assessment. It appeared the focus of the risk assessment in some situations was driven by the medical model, it was more about the impact of the disability rather than an assessment to establish the risks for the student in an environment that did not address students’ needs (social model) (Oliver, 1983). To promote safety in healthcare for both patients and staff, the NMC (2010) assert students must be fit for practice, a status that is evidenced through assessment of standards of competence and Good Health and Good Character declarations.

It has been suggested in the literature the associated dependency between competence and fitness and/or health contributes to the challenge of accepting specific activities may be completed differently but successfully when reasonable adjustments are put in place (Stanley et al, 2011; Storr et al., 2011). Admittedly it is difficult to sustain the balance between providing support and maintaining professional standards (Sin & Fong, 2008; Hargreaves & Walker, 2014) in a fair and equitable way. This is a consequence of the subjectivity introduced by the numerous stakeholders involved in pre-registration nursing education and their
diverse attitudes, knowledge and values. Several participants disagreed with some of the proposed reasonable adjustments offered to students with depression e.g. late starts, shorter shifts. In fact the health continuum experienced by students with certain disabilities resulted in an apparent struggle about offering ‘reasonable’ levels of support and recognising that at times decisions need to be taken about a student’s ability to continue on their programme of study or whether they should take time out to focus on improving their health.

Yet again participants made reference to an overall lack of guidance about how to manage safety v risk. Although General Health and Character guidance for HEIs is provided by the NMC, and the Standards for Pre-registration Nursing Education (NMC, 2010) outline requirements and guidance, the NMC clearly articulate regulation and assessment of students’ character and health is the responsibility of each HEI using their own policies and procedures. Hence, programme providers are expected to adhere to Equality legislation, offer reasonable adjustments on an individual basis, being mindful of the context, and ensuring patient safety is not compromised. Thus resolutions are based on the attitudes and values of different stakeholders, a further feature of wicked problems (Rittel & Webber, 1973; Conklin, 2005).

The literature asserts risks to safe practice are not solely associated with students with disabilities because there are risks associated with any student (Murphy, 2011; Sanderson-Mann et al., 2012; Ashcroft & Lutfiyya, 2013; Hill, 2015). However Sanderson-Mann et al, (2012) noted students with disabilities were more likely to worry about making mistakes. In fact as students with disabilities were particularly self-aware of their limitations they were cautious in their practice especially in busy and distracting environments (Morris and Turnbull, 2006; White, 2007; Crouch, 2008; Murphy, 2011; Ridley, 2011; Howlin et al., 2014; Hill, 2015).

To address the wickedness that stems from the safety versus risk dichotomy discussions regarding reasonable adjustments need to take place within the broadest context (Head & Alford, 2015). As pre-registration nursing encompasses
theory and practice in equal measure, discussions need to be collaborative involving stakeholders from academic and practice settings as well as the student. Attitudes, values and concerns about risks to safety require exploration before potential resolutions to the challenges are envisaged through judicious thinking (Sharts-Hopko, 2013) to ensure students with disabilities are offered appropriate and effective learning opportunities in an equitable and fair way to develop competence and in turn meet NMC requirements. For instance, from the examples presented by participants, where suggested reasonable adjustments were deemed acceptable in one setting but unreasonable in another e.g. scribe, alternative strategies should be identified to ensure that patient safety risks are minimised. Thus access to assistive software, spellcheckers and opportunities to prepare drafts before recording notes in patient documentation can be deemed reasonable in practice if stakeholders take the opportunity to review their existing culture, and recognise the need to individualise support without compromising safety.

Partnership facilitates open communication between stakeholders and generates opportunities to share experiences and examples of good ‘resolutions’ across internal and external organisational boundaries (Briggs, 2012). By engaging in collaborative working, the risk of conflict and tension between settings working in isolation could be minimised (Bore & Wright, 2009) because a facilitative and supportive culture would be developed. Student and staff expectations of performance and support would be managed and resolutions identified. It is essential that any resolution is achievable, manageable, realistic, and ‘reasonable’ for students with disabilities. The resolutions also need to be acceptable to the educational contexts at each stage of pre-registration nursing education and available once registered with the NMC. In turn agreed guidance to incorporate, and where possible merge, or offer alternative reasonable adjustments in both educational contexts could then be developed (Walker et al., 2013). With clear guidance, the tendency for practice staff to be risk averse will be reduced. As knowledge and understanding of what reasonable adjustments may be offered increase with every new experience, support can be evaluated and reviewed. Thereby, staff and student confidence in offering and accessing learning
opportunities can be enhanced. Thus inaccurate perceptions regarding potential safety issues can be challenged and resolutions to address the wicked problem of reasonable adjustments can be agreed so staff no longer have to wrestle with their wish to support students while being mindful of impact a disability exerts on patient safety.

6.4 Reflexivity: Interpreting the findings

As highlighted in section 3.13, reflexivity is a crucial aspect of quality in the research process (Northway, 2000) particularly where there is risk the researcher may bias the findings (Green & Thorogood, 2014; Moule & Goodman, 2014). Not only is reflexivity important during data collection, it is also important in the analysis and interpretation of the findings to ensure transparency and trustworthiness (Northway, 2000; Giddings & Grant, 2009). Pre-conceived ideas and experiences have shaped my perspective regarding reasonable adjustments and supporting students with disabilities. As a stakeholder in this wicked problem, it was essential to acknowledge the influences I exerted over the analysis and interpretation of my findings (Braun & Clarke, 2013; Patton, 2015). It is also essential to acknowledge and limit any researcher bias. This supports the rigour of the research (Morse et al., 2002; Tobin & Begley, 2004; Lacey, 2010; Gray, 2017c).

Throughout this research I have reflected, sometimes on my own and sometimes through discussion with my supervisors. This reflection has taken place in action, when engaged in the analysis and interpretation of the data, and on action, when writing my findings and learning from my research journey overall (Schön, 1983). Notes of my reflections were recorded after data collection and supervision meetings to highlight my developmental journey, to record my decision making processes, and to assist with my initial thoughts underpinning the data analysis and interpretation.
One of the main challenges throughout the data analysis was the delays in transcribing the interviews. As outlined (section 3.11), I opted to outsource the transcribing after realising after one transcription, the inordinate amount of time it would take me to complete all transcriptions while trying to manage professional and personal commitments as a part-time student. Due to the time that elapsed between engaging one transcriber and having to change to another service I was concerned I would not remember the nature of each of the discussions or their context. However, listening to the audio-recordings, reviewing field notes, and then spending time re-reading the transcripts, while again listening to the audio-recordings facilitated my familiarisation with and recall of the data (Braun & Clark, 2006; Braun & Clark 2013; Gray, 2017c

I was aware the initial analysis and interpretation of the findings was influenced by my experiences and opinions. There were parts of the data that generated reflection on my own knowledge and understanding, for example the points about 24-hour care. Thus it took time and effort to delve into the findings to understand and interpret the shared experiences solely from the participants’ perspective rather than a joint perspective including my views. Working through the analysis for both phases of the study, there were times when I wished I had delved more into the participant’s responses, particularly as immersion in the data offered a more holistic perspective of different participant’s perspectives. This realisation reinforced the notion that data analysis occurs concurrently with data collection (Creswell, 2009) and clearly as I progressed through the research process I was able to garner data from subsequent focus groups and interviews that augmented the findings.

The process of thematic analysis was gruelling and was much more demanding on my time than I had originally thought. As a novice researcher it was difficult to know where to begin and at times I was frustrated by my relative lack of productivity. I found my manual approach to coding reasonably straightforward to manage and appreciated the tangible feedback about my progress that was evident on the flipchart paper and post-its. During the theme generation I repeatedly
revisited the transcriptions to ensure the quotes I had coded were presented in the context of the data. I found that taking time to ponder and review the emerging themes permitted opportunity to ensure the themes were accurately defined. The analysis and interpretation of the data has caused me to question my practice as an ADC and the processes and management of reasonable adjustments in my place of employment. It was very evident that while my colleagues aim to work fairly to offer students equal opportunities in their programme of study, some of our beliefs and values within our organisation about reasonable adjustments were quite different to the participants’ experiences and perceptions. For example the discussions about shift patterns and how students demonstrate competence to respond in an emergency generated much reflection. While we offer shorter shifts as a reasonable adjustment we support students to engage in night shifts because it is my understanding that the NMC standards require students to experience night duty. We also expect students to actively engage in emergency situations. My expectations for students in both these examples are in contrast to participants’ understanding. Thus I question whether I am unfair to students with disabilities but also question whether I would be discriminatory to other students without disabilities who may have valid reasons for not wishing to undertake night shifts or not being able to perform CPR.

Being aware of my potential influence as a researcher I opted not to probe further into participants’ experiences and perceptions with regards to the examples above. Although there could have been further exploration I do not think the depth of data or the analysis and interpretation has been compromised. If anything, the wickedness of the problem has been reinforced. However I am keen to establish a resolution to these issues but at present, the guidance of our programme management team, reinforces our position on 24-hour care while responding to an emergency remains unchanged.

This research experience and the associated reflexivity have been very beneficial because I have needed to be receptive to alternative ways of supporting students with disabilities. Not only have I questioned how and why we interpret and
understand the NMC Standards and any guidance about reasonable adjustments in a certain way, I have welcomed the opportunity to consider the approaches adopted by other HEIs and practice providers. The constant visual reminders on the post-its to represent the participants’ views and my repeated visits to the transcriptions and recordings have kept me focussed. The ability to be open and reflective has facilitated a more objective analysis and interpretation of the findings.

My theory that reasonable adjustment is a wicked problem has generated many more questions. Reassuringly, in some respects this research has highlighted that my diverse experiences of supporting students with disabilities are not isolated or peculiar to me in my roles as lecturer, AA and ADC. The complexity associated with a concept that is ambiguous and ill-defined, intractable, multi-factorial and value-laden is extreme. I have realised stakeholders at various levels within and across organisations offering and regulating pre-registration nurse education have different views which shape the problem. Any potential resolutions are usually quick fixes that are not reviewed and often do not consider the bigger picture for the student or the context of their education at a given point in time. The need to actively open discussions locally, regionally and nationally to disentangle the melee is evident. Stakeholders in pre-registration nursing education need to explore their attitudes, beliefs and values in their organisations to facilitate opportunities to collaboratively consider the wicked problem and suggest acceptable resolutions in HEI and practice settings so students with disabilities are offered equal opportunities to become safe effective practitioners.

6.5 Summary
In this chapter I have synthesised and discussed the findings from the two phases of this mixed-methods research which was undertaken to explore the concept of reasonable adjustments in pre-registration nursing education in Scotland. I have
argued that reasonable adjustment is a wicked problem by comprehensively aligning several characteristics of wicked problems within the discussion to highlight this new perspective on reasonable adjustments. Examples of the wickedness of reasonable adjustments have been provided from the findings. These have included the difficulties defining the concept and the diverse perspectives of the various stakeholders which are influenced by their organisational culture. It was obvious that interpretations of pre-registration nursing standards were dissimilar at times as were recommended support measures, the reasonableness of which some participants disputed.

While disclosure processes in HEIs were defined, the onus to disclose in practice belonged to the student despite participants recognising a need to facilitate disclosure for students. Subsequently students’ choice to disclose was influenced by many factors including previous experiences, attitudes and reactions to disclosure and perceived availability and suitability of support. Failure to disclose resulted in a lack of support which could impact on student progression and patient safety. Clearly the lack of explicit guidance regarding reasonable adjustments and their suitability particularly to practice settings contributed to the distinct variability in student support. Thus complexities associated with the dichotomies that influence any attempts at resolving what is meant by reasonable abound. Indeed, it has been evidenced that reasonable adjustments can generate more problems, a recognised feature of wicked problems.

Reflexivity has been embraced throughout the research process, an activity that has promoted my development as a researcher and which has offered an audit trail of confirmability to enhance the rigour of my research. The final chapter outlines the conclusions I have drawn from my exploration of reasonable adjustments in pre-registration nursing education in Scotland and some recommendations for the provision of support for students with disabilities and future research.
Chapter 7: Conclusions and recommendations

7.1 Introduction

This thesis has presented a mixed methods study exploring the concept of reasonable adjustments in Scottish pre-registration nursing education. Following an initial structured review of the literature, surveys, focus groups and interviews were undertaken to gather data from key stakeholders - Academic Disability Coordinators (ADCs); Academic Advisors (AAs) and Practice Education Facilitators (PEFs). Documentary analysis of Scottish HEIs’ guidelines was also completed and the literature review extended to ensure I was cognisant of the most up-to-date evidence with regards to supporting students with disabilities.

Throughout chapters three, four and five it has been acknowledged the data were incomplete for a number of reasons. These included lack of permission to proceed with the study in one HEI and difficulty identifying and accessing stakeholders who could contribute to the study in others. However, this chapter draws together the conclusions from the literature review, research findings and discussion. The research aim and objectives have been revisited and the implications for nursing education in the context of reasonable adjustments being conceptualised as a wicked problem are also examined in detail. Strengths and limitations of this study are also appraised before closing the chapter with recommendations for policy, education and research.

There is no doubt there was a need to undertake this study to explore reasonable adjustments in pre-registration nursing education in Scotland. The identified gaps in the literature highlighted an overall dearth of research about the types of reasonable adjustments implemented and their effectiveness in meeting the needs of students with disabilities, from different perspectives. Thus there was need to explore reasonable adjustments from a much wider context than most studies had previously addressed. Indeed only one study from Scotland was located. Thus to add to the body of knowledge and gain a deeper understanding of the phenomena it was necessary to involve a variety of stakeholders from across pre-registration
nursing programmes in Scotland. The intention was to obtain a heterogeneous and national (Scottish) perspective regarding reasonable adjustments to build on existing research knowledge mainly gathered from small scale studies, mainly completed locally in England. As well as establishing details about the processes for identifying and implementing reasonable adjustments an exploration of key stakeholders’ experiences and perceptions of those factors influencing reasonable adjustments was deemed necessary.

7.2 Reviewing the research aim and objectives

The aim of this research was to explore the concept of reasonable adjustments within pre-registration nursing education in Scotland underpinned by the following objectives namely to:

1. Explore the meaning of reasonable adjustments within the context of pre-registration nursing education in Scotland from the perspective of Academic Advisors (AAs), Academic Disability Coordinators (ADCs), and Practice Education Facilitators (PEFs).

2. Examine the processes involved in identifying reasonable adjustments to support pre-registration student nurses with disabilities.

3. Discern the management processes underpinning the implementation of reasonable adjustments for student nurses with disabilities.

4. Explain from the perspectives of AAs, ADCs and PEFs what factors influence the implementation of reasonable adjustments to support student nurses with disabilities in academic and practice environments.

The following sections will address the conclusions reached for each objective in turn.
7.2.1 Objective one

From the participants’ perspectives, the concept of reasonable adjustment is ill-defined. The word ‘reasonable’ is a weasel word; a word that is “evasive” and does not clearly specify a meaning (Collins, 2017). It is open to interpretation and subsequent manipulation, as illustrated in this study. The notion of support was clearly articulated by several participants. Similarly support was the main concept identified in the existing literature (White, 2007; Kane & Gooding, 2009; Crouch, 2010; Tee et al., 2010; Storr et al., 2011; Wray et al., 2012b; Howlin et al., 2014a; Howlin et al., 2014b). Offering equal opportunities to students with disabilities was the overriding intent for stakeholders and to achieve this, efforts were made to level the playing field. However there were significant variations in their perceptions regarding reasonableness and what constituted a reasonable adjustment. There was strong evidence of heterogeneity regarding the levels and types of support recommended for pre-registration nursing students between and across HEIs and practice settings.

Participants demonstrated a broad understanding of the notion of support underpinning reasonable adjustments but the boundaries associated with that support were porous. Support availability was inconsistent and variable and decisions about the acceptability and availability of support were affected by several factors. This will be explored further under objective 4.

Attitudes and values coloured peoples’ willingness to facilitate reasonable adjustments. A continuum from a belief that students with specific disabilities could not become registered nurses to an apparent willingness to do anything to assist progression and completion was uncovered during the research. Moreover support offered was diverse across and between the two educational contexts – theory and practice – encountered in pre-registration nursing.

Although respondents identified a wide range of reasonable adjustments for practice settings, the findings showed a limited number of these were implemented. In comparison, fewer types of reasonable adjustments were offered
to students to meet their needs in HEIs, nevertheless almost all of those identified were provided in the majority of HEIs. Tee & Cowen (2012) and Hargreaves et al. (2014) suggested academic settings tend to be more flexible in offering support and therefore implementing reasonable adjustments in an academic setting is more straightforward. I found comparable perceptions for participants in this study because arguably support in academic settings were and still are simpler to identify and implement.

While learning and teaching strategies vary, HEIs are currently grappling with the philosophy of inclusion and the notion of universal design for learning, which offers student-centred experiences (Wray et al., 2013). For example virtual learning environments store learning and teaching materials and assistive software is widely available. However practice settings are much more diverse, and are slower to engage with the concepts of inclusion and universal design. Local governance and policies result in disparate availability of inclusive support processes in practice settings, which have different organisational priorities from HEIs. Some practice partners provide assistive technology for employees but access to computers and assistive technology for students is restricted by data protection policies and fears around confidentiality breaches. Thus certain practice settings are less amenable to facilitating inclusion. Hence they can be reluctant to accept that students with disabilities can deliver aspects of nursing care with the support of reasonable adjustments both safely and effectively. The main cause of the reluctance is that skills may be carried out differently by students with disabilities from what is regarded as the usual or customary practice (Stanley et al., 2011; Storr et al., 2011).

From the findings, it was obvious reasonable adjustment had a variety of meanings most of which were ambiguous and superficial. Confusion also arose from stakeholders’ associations of reasonable adjustments with the other protected
characteristics defined by the Equality Act (2010) and Family friendly policies for example. Hence meeting my attempt to determine the meaning of reasonable adjustments reinforced the wickedness of the concept as it had no definitive definition (Rittel & Webber, 1973).

7.2.2 Objective two

With regards to objective two, the data confirmed all HEIs had existing processes to identify reasonable adjustments. The processes were initiated through the UCAS admissions procedure, if students opted to disclose a known disability on their application form. Although respondents in Phase one acknowledged disclosure mainly occurred on application to a programme, as outlined on the flowchart (Figure 4.10, p. 125) there were several alternative disclosure routes, prior to, on commencement and during a student’s educational journey. However disclosure during the programme was ad hoc, usually in response to academic or practice issues that had been identified along the way. Thus the processes for supporting students were open to error and could therefore be incomplete.

Following disclosure at any point, students were requested to meet University Disability Advisors (DA) who sought evidence regarding the impact of a reported disability before recommending reasonable adjustments. Occasionally Occupational Health departments (OH) were consulted to give advice on reasonable adjustments for students although experiences of OH input were varied. The findings clearly demonstrated the majority of recommendations related to commonly available support in the academic setting. In fact, overall there was negligible consideration of alternative support requirements to minimise the impact of a disability in the practice setting. These findings reflect the literature that there is an academic focus on support recommendations (Wright, 2000; Morris & Turnbull, 2006; Stanley et al., 2007; White, 2007; Tee et al., 2010; Child & Langford, 2011). This is to the

24 Although Family friendly policies were not explored in the study, participants debated the provision of alternative shift patterns as a ‘reasonable adjustments’ to manage students’ childcare issues
detriment of student support in practice and suggests programme providers were
and still are not meeting their legal and professional obligations to provide
reasonable adjustments.

This study illustrates people with multiple roles (e.g. admissions, AA, link lecturer,
ADC) have a broad insight into the needs of students with disabilities and have the
opportunity to influence the recommended reasonable adjustments. However
having acknowledged the dearth of recommendations for practice, only a few ADCs
meet with students to discuss support in practice settings. Instead, the findings
suggest students are expected to transfer support principles to and across different
settings. Hence half of a student’s programme of study is essentially disregarded.
This reflects an overall lack of understanding of the impact of a disability within
different settings and takes no account of students having little awareness of the
requirements they need to succeed. Students may successfully complete
placements by default, or may use existing strategies that have been effective in
other settings. However there is a risk that students will adopt maladaptive or
inappropriate strategies in attempt to meet their support needs. For example
avoiding using the telephone as outlined in this study and in the literature (Morris &
Turnbull, 2006; Crouch, 2008; Murphy, 2011).

From my own findings, only when issues arose were reasonable adjustments for
practice taken seriously and considered in full. Only then were existing support
arrangements identified, applied or where already in place alternative adjustments
sought and suggested. This unmistakably reactionary approach breaches the
requirements of the Public Sector Duty to be anticipatory when managing disability
(Equality Act, 2010).

Examination of the processes used to identify reasonable adjustments clearly
demonstrated that following the initial disclosure procedures within HEIs, though
well established, were incomplete. Hence, there is a clear need for HEIs to broaden
the scope of the recommended reasonable adjustments they offer to take account
of support requirements for both theory and practice. Thus ensuring students’ needs, legal obligations and professional requirements can all be met.

7.2.3 Objective three
Determining the processes for managing the implementation of reasonable adjustments was the third research objective. The management of reasonable adjustments was found to be diverse in Scottish HEIs. Generic information and guidance was provided by University Disability Services about the types of disabilities and examples of support available. Individual recommendations were made for each student who had disclosed a disability. With students’ consent to share, support recommendations were distributed to academic staff by fairly well-established procedures using different formats and media across HEIs. However there is scope to improve and tighten such procedures to ensure effective and robust communication about students’ support needs occurs. For instance, there is a requirement in some HEIs for academic staff to be proactive in seeking information so they are aware of what student support has to be facilitated. Consequently there is also an acknowledged risk that recommendations may be missed but there are no systems in place to check if this is the case. A further issue that arose from academic staff experiences of nebulous recommendations being communicated was that many were unsure of what facilitating student-centred and individualised support entailed. Thus in reality support was implemented based on general information and staffs’ limited knowledge, with little, if any, consideration of each student’s specific needs.

With few exceptions, the onus to request support in practice settings lay firmly with the student. Often this required disclosure. However from this study, and in the literature, disclosure is influenced by students’ identity constructs and completion of a benefit-risk analysis. Hence, students assess whether the level of support implemented following disclosure outweighs the risks of discrimination, negative attitudes and stigma (Wright, 2000; Morris & Turnbull, 2007; White, 2007; Crouch,
Regular reviews of student progress should be completed to inform the implementation of reasonable adjustments. Some HEIs complete regular reviews of the effectiveness of reasonable adjustments, particularly when a student is experiencing difficulties meeting the demands of the pre-registration programme. In contrast formal evaluations were not completed by other HEIs unless there was a query regarding a student’s fitness to practise. Thus, it was generally presumed the support provided was meeting students’ needs if students were progressing in their studies. Again students were considered to be responsible for highlighting support measures to be reviewed. It was anticipated that students would need less direct supervision and support as they progressed through their programme of study. Consequently, there was a view that levels of support should be weaned. While students may develop their own support strategies, there is a risk of discrimination if support is weaned because reasonable adjustments are an entitlement to minimise the disadvantages caused by disabilities, and therefore they may always be necessary.

The disparities in available reasonable adjustments across and between HEIs and practice partners were significant. In reality support may not be available in the preferred format if students choose not to disclose. Some reasonable adjustments implemented in some areas were regarded as unreasonable in certain circumstances. This discrepancy was not solely apparent between HEI and practice; it was evident in different practice areas too. Decisions about reasonableness tended to be influenced by stakeholders’ variable levels of knowledge and understanding, as well as the different organisational cultures extant across clinical areas. Expectations about what students need to demonstrate to achieve competence also varied considerably. There were diverse expectations surrounding the role of the student compared to a registered nurse too. In fact there were apparent disparities between what support measures were deemed ‘reasonable’
for students versus employees. Thus the identified dichotomies impacted substantially on the implementation of reasonable adjustments for students.

7.2.4 Objective four
Participants offered that several factors influenced the implementation of reasonable adjustments. These factors can be grouped into four typologies namely: individual, micro-, meso- and macro-level. However it is important to note there are connections and overlap between each level of the framework. Figure 7.1 represents the layers of factors that influence reasonable adjustments in pre-registration nursing education.

Figure 7.1 Factors influencing Reasonable Adjustments
7.2.4.1 Individual factors

Individual factors stem from students as well as numerous other stakeholders involved in pre-registration nursing education. Firstly, the student may or may not be aware they have a disability. Indeed even students who are aware of their impairment may not consider the disability part of their identity (Evans, 2014a; Evans, 2015). As a result disclosure will not occur and reasonable adjustment recommendations cannot be recorded. Consequently adjustments cannot be implemented. In comparison, students who choose to disclose a disability, time their disclosure depending on the circumstances. Their decision is also influenced by perceptions of how disclosure may impact on them as an individual and how they are progressing on their programme of study with or without the required support. Some students embrace their disability and disclose at each stage of their education, whereas others resist disclosure but may be forced to disclose when issues arise (Evans, 2014a).

Stakeholders’ interpretations and understanding of reasonable adjustments impact on their attitudes towards supporting students with disabilities and support availability. Attitudes range from nurturing and supportive to negative and discriminatory. This results in the implementation of accessible and perhaps excessive support due to the fluidity of the perceived support boundaries. Alternatively support is at best limited or no support is provided.

The implementation of reasonable adjustments is also influenced by expectations of students with disabilities and key stakeholders about the levels and types of support that can be facilitated. There are also expectations about the level of student performance required to demonstrate competence. In fact stakeholders’ attitudes will influence their perceptions of what students with disabilities will be able to do effectively and safely with or without support. Stakeholders’ expectations are shaped depending on their understanding of the impact of a particular disability on the student, and their perceptions of how reasonable adjustments negate the disadvantage resulting from that disability. Managing expectations is challenging when people’s attitudes, beliefs and values are
dissimilar and definitions of reasonable adjustment are at best nebulous (Cowen, 2010). However to address the wicked problem it is essential students’ and stakeholders expectations are explored so that they can be appropriately managed to ensure implemented reasonable adjustments are fair and realistic.

7.2.4.2 Micro-level factors
Micro-level factors pertain to the context of pre-registration nursing education. Wicked problems are context specific, (Rittel & Webber, 1973; Southgate et al., 2013; Jordan et al., 2014), a point clearly articulated in the findings of this study. It is clear the educational location and the status of the person requiring reasonable adjustments all have an impact on whether and how reasonable adjustments are implemented.

Student nurses undertake their education between an HEI and associated practice environments. However, heterogeneity is evident within and across each context. Nursing education embraces a variety of learning and teaching strategies in HEIs, while practice spans a multiplicity of health and social care environments. Facilities and processes for supporting students within each context at times demonstrate some degree of similarity, though for the most part there is considerable diversity. While processes for identifying and implementing reasonable adjustments are comparatively well established in HEIs, it is evident the latter is not the case in most practice settings. Students frequently have to disclose repeatedly to a variety of mentors in diverse practice settings. This is particularly challenging when students may only attend a placement for a limited time and cannot establish trusting relationships with mentors. Nonetheless this is the current process underlying the implementation of reasonable adjustments for most programmes.

This study has identified that organisational culture affects stakeholders’ reactions to students. Hence, attitudes and values influence the perceived reasonableness of support requests. Thus experiences of biased and discriminatory attitudes and behaviours discourage students from following processes to access reasonable
adjustments (Brooks, 2009; Schein & Schein, 2017). It is unsurprising that students choose not to disclose based on these circumstances. Consequently the wickedness of reasonable adjustments is highlighted further. For example when problems associated with lack of disclosure arise, students may be unable to achieve competence and fail to meet their professional requirements because appropriate support measures are not available.

To tackle micro-level factors that influence the implementation of reasonable adjustments, processes must be extended to include support recommendations in both theory and practice settings. Moreover where adjustments are deemed reasonable in one context but not in another, alternative support strategies must be explored by relevant stakeholders from both contexts to establish ‘good’ resolutions (Conklin, 2005; Briggs, 2012; Walker et al., 2013; Head & Alford, 2015). Students should also contribute to this partnership because most are experts regarding the impact of their disability and in the strategies that help minimise the disadvantages experienced (Morris & Turnbull, 2006; Crouch, 2008; Murphy, 2011; Ridley, 2011; Sharts-Hopko, 2013; Howlin et al., 2014a; Hill, 2015).

7.2.4.3 Meso-level factors
The meso-level factors include priorities, tensions, safety and guidance. Programme providers are required to recommend and implement reasonable adjustments for students with disabilities. In principle, reasonable adjustments for students with disabilities are offered in HEIs and in practice settings. In reality, the actual or perceived demands of providing reasonable adjustments and effective support impact on the availability and implementation of the support. At times staff supporting students prioritise the demands of their workload over students’ needs and the implementation of reasonable adjustments. This is especially the case if there is a perceived risk to patient safety (Tingle, 2013). Examples of situations where the level of support has been questioned have been provided in the findings chapters, particularly chapter five. Equally, tensions experienced due to competing demands caused by the mentor/assessor role and academic staff being drawn into
counselling roles have also been highlighted. Indeed balancing safety and risk is a significant dichotomy that has been exposed in this study, thereby corroborating the misperceptions regarding the risks associated with supporting students with disabilities within the literature (White, 2007; Crouch, 2008; Carey, 2012; Sanderson-Mann et al., 2012; Ashcroft & Luftiyya, 2013; Walker et al., 2013; Evans, 2014a; McPheat 2014).

Staff and students may seek support and guidance to inform decisions about reasonable adjustments, performance management, and risk assessments. However, despite Phase one respondents reporting guidance was available, most stakeholders were unaware of existing guidelines and policies. Despite reports the amount of guidance relevant to supporting students has increased (Wray et al., 2012; Evans, 2015) I found the limited guidance available was at best extremely generic and unlikely to suggest specific reasonable adjustments for practice settings.

At times AAs were contacted by mentors and students to prepare action plans and identify alternative support strategies to support student progress. However not all academic participants were confident that their knowledge was sufficient to suggest reasonable adjustments for different practice areas. Thus there is the potential for tension to arise between academic and practice staff, instead of the collaboration needed to identify and implement reasonable adjustments. A list of reasonable adjustment examples for different disabilities may help mentors to explore the appropriateness of reasonable adjustments but there is an associated risk support will not be individualised or student-centred. As a resolution, the list may be ineffective. The consequences may not be realised in a timely manner, which could impact on student performance and progression. The ‘bad’ resolution and subsequent problems are other characteristics of wicked problems.

There were examples of times where levels of support in practice become unreasonable resulting in ‘failure to fail’ scenarios (Duffy, 2003). Fitness to practice and student conduct policies and procedures are available to inform the
management of situations where student performance is questioned. Yet policies are not always implemented or procedures followed. In part there is a lack of appreciation of the purpose of the policies in relation to students with disabilities. This is despite acknowledgement that fitness to practise is linked to health and behaviour (NMC, 2010; NMC, 2017a), and includes disabilities. Interestingly some participants suggested a tentative link to students’ character and honesty in situations where students opted not to disclose their disability. Like other wicked problems, stakeholders’ perceptions influence how problems are framed and the types of resolutions that are identified (Rittel & Webber, 1973; Kreuter et al., 2004; Head, 2008; Beer & Lawson, 2017). The level of risk is often overestimated depending on perceptions of the potential impact of disabilities on the safety of students, staff and patients.

7.2.4.4 Macro-level factors
As already outlined, Public Sector organisations including HEIs and practice partners are legally obliged to adhere to the Equality Act (2010) and professional regulations (NMC, 2010; NMC, 2016). Tension exists between the legal demands to ensure people with disabilities are not disadvantaged by the impact of their disability and the need to maintain professional standards (Dickson, 2005; Sin & Fong, 2008; Ridley, 2011; Sanderson-Mann et al., 2012). Therefore, adjustments must be made within the boundaries imposed by professional regulators. Consideration must also be given to HEI requirements dictated by quality assurance and governance arrangements. These factors all have a bearing on the reasonable adjustments that are implemented. For example HEI policies dictate a ratio of extra time that is ‘normally’ offered to students with disabilities although in exceptional circumstances the notion of extra time may be extended. However programme providers must adhere to the NMC progression points (NMC, 2010) when deciding about student support and progression. Therefore if students have not had sufficient time in practice they will not be assessed and therefore cannot proceed to the next year of the programme until practice learning experiences are passed. Consequently, there are tensions between offering equal opportunities and
remaining fair so there is no perceived positive or negative discrimination (EHRC, 2017).

The Political agenda also affects macro-level factors. NMC (2010) standards need to be cognisant of European Union (EU) Directives related to nursing education so (adult) nurses educated and registered in the United Kingdom are eligible for employment in the EU. Current students have to meet the NMC standards to become registered nurses and these include a requirement to complete 2300 hours of practice. The specified number of hours are discriminatory and do not remove the disadvantage imposed by a disability. Students can demonstrate competence in fewer hours. They may also be very clear about the career path they wish to follow to identify which competences are necessary. Thus there is a need to question why all students have to demonstrate competence in those skills students may never need in their chosen area of practice as a registered nurse (Ingram, 1997; Sowers et al., 2004a; Opie & Taylor, 2008). As a potential solution, participants proposed the development of bespoke programmes to allow students with disabilities to gain registration in a particular area of nursing practice within their preferred field of nursing and their boundaries of capability.

This thesis was written after consultation for the new pre-registration standards had closed and therefore the findings cannot contribute at this time. Nevertheless it is worth noting the requirement for the provision of reasonable adjustments is included in Pillar 3: student learning and empowerment in the education framework (NMC, 2017a). However the definition is less detailed than the explanation provided in the current standards for pre-registration nursing education (NMC, 2010). Therefore the framework does not improve the articulation of reasonable adjustments and consequently does not reduce that particular feature of a wicked problem.

The new standards aim to minimise the variable educational experiences of student nurses and will provide an outcomes focussed framework. Yet it is difficult to establish what consideration has been offered to the processes that may be
followed to reach the specified outcomes. Indeed there is debate about the balance between generic skills and field-specific skills. Thus there is a risk that existing cultures will prevail to expect skills will be demonstrated in a particular way. This promotes discrimination despite recognition students with disabilities can be safe effective practitioners when completing activities in alternative ways (Stanley et al., 2011; Storr et al., 2011).

Irrespective of the intention in the new standards to ensure every student nurse has demonstrated proficiency in pre-determined skills, the opportunity to explore bespoke programme formats is both available and opportune. For example, it is worth considering for the future, student nurses may not wish to be employed in the EU. Therefore students may not need to meet all EU directives if they can study to follow a very specific career path in the UK with recognised NMC registration. Indeed as student nurses in England and Northern Ireland have to pay tuition fees, this may encourage programme providers in these countries to consult with these students as consumers of pre-registration nursing education. Other stakeholders involved in pre-registration nursing education should also participate to share their perspectives about the viability of bespoke programmes. Like other wicked problems, it is essential that stakeholders openly debate potential resolutions. Similar to the other levels, macro-level factors require open consideration of the tensions between professional regulation and equality legislation. Strategic level stakeholders of pre-registration nursing education, for instance NMC, NHS and HEI representatives, need to explore the issue of reasonable adjustment with operational level stakeholders (Students, AAs, mentors and service users). Perspectives can be gathered to inform suggested resolutions to address the identified dichotomies. In turn the wickedness of reasonable adjustments in pre-registration nursing education will be lessened.
7.3 Key conclusions

Key conclusions drawn from the research data are presented below. However they are not listed in any order of priority:

1. Reasonable adjustment is a wicked problem. Provision of adequate, appropriate and effective support for students with disabilities is difficult to manage.

2. The term reasonable adjustment is not clearly defined and guidelines to support the identification and implementation of support in HEIs and practice settings are nebulous.

3. Anecdote, experience and perception heavily influence stakeholders’ perspectives on the purpose of reasonable adjustments to support students with disabilities. While intentions are honourable to provide equal opportunities for students to achieve NMC registration, levels and types of available support can be excessive and unfair.

4. Support offered to pre-registration nursing students with disabilities is better in academic than practice settings but the levels and types of support are inconsistent and variable. This results in diverse student experiences, which potentially impacts on progression, and may lead to insufficient efforts to meet legal obligations and professional requirements.

5. There are hugely diverse interpretations of the NMC Standards for pre-registration nursing education which influences the scope of student performance required to demonstrate competence. Open discussions are needed between strategic and operational stakeholders to determine ‘good’ resolutions to promote equity and fairness. Consequently it is argued that the feasibility of bespoke programmes should be explored.
6 There is limited evidence of collaborative working between and across HEI programme providers and practice partners. Collaboration is necessary to explore perceptions prior to identifying and agreeing potential resolutions to the problem of reasonable adjustments particularly in practice settings.

7 Students, as experts in their disability, should be invited to contribute to the partnership to help identify reasonable adjustments.

8 Disclosure processes must be developed to include procedures to support students to disclose to practice settings.

9 Students need information and education about the benefits of disclosure and should be supported to request, evaluate and review reasonable adjustments.

10 Education and guidance about disabilities and suggested reasonable adjustments is necessary to support staff to increase their knowledge and confidence to identify, and implement reasonable adjustments.

11 Existing reasonable adjustments need to be evaluated for every student at each stage of their education to ensure support is appropriate and effective in meeting students’ needs in academic and practice environments.

12 Where an adjustment is unreasonable in a specific context (HEI or practice setting), alternative reasonable adjustments must be identified to meet a student’s support needs.
7.4 Strengths and Limitations of the Research

All research has its strengths and limitations. The adoption of an explanatory mixed methods pragmatic approach to this study was a definite strength. Pragmatism was selected as the underpinning paradigm for the study because it was hoped this research approach would facilitate access to information to address the issue of reasonable adjustments in Scottish pre-registration nursing education (Gray, 2017a). Access to quantitative and qualitative data was necessary to address the study aim and objectives. This permitted the data to be connected to add breadth and depth, thereby augmenting the findings (Brannen & Halcomb, 2009; Creswell, 2009; Venkatesh et al., 2013). As this exploration concerned pre-registration nursing it was important to consider the realities of implementing reasonable adjustments in academic and practice settings from the perspectives of pre-determined key stakeholders.

Ongoing reflexivity and the flexibility provided by pragmatism permitted the decision to change from a self-completion to a telephone survey which was completed a few weeks after distribution of the data collection tool to respondents. This was to provide time for respondents to gather data. Based on the results obtained, while the data set was incomplete, more information was secured by being able to check responses and clarify points. The pragmatic approach also afforded the development of a contingency plan for Phase two data collection. Individual interviews and smaller focus groups provided access to a wealth of data that may not otherwise have been gathered. Despite access issues, data for Phase one was obtained from seven of the nine HEIs approached. In Phase two all of the targeted stakeholders (AAs, ADCs, and PEFs) from the practice education regions in Scotland were represented, which is a strength of the study.

The study also has strengths because it has been undertaken in a structured manner given I engaged with reflexivity throughout the study. Each stage has been detailed to secure the credibility, confirmability, dependability and transferability of the study findings. It also provides an audit trail to evidence the reasons for the
decisions taken (Topping, 2010). Data analysis was iterative to permit data triangulation to link the phases of the research ensuring the findings represent a true picture of reasonable adjustments in Scottish pre-registration nursing education as well as the experiences of the participants. The latter actions were supported by illustrations of stakeholder narratives and verbatim quotes to demonstrate the accuracy and consistency of the findings which have also contributed to the dependability and credibility of the study (Simons & Lathlean, 2010; Polit & Beck, 2012; Moule & Goodman, 2014). Links have also been established with extant literature to corroborate the data and highlight my contribution to the body of knowledge. The content in this chapter draws together the conclusions which evidence that the research aim and objectives have been addressed.

The thesis also includes two reflexivity sections which contribute to the confirmability of the study. Mindful of the risk of bias due to my insider role as an ADC, lecturer and former PEF (Dwyer & Buckle, 2009) I have endeavoured to minimise the bias and promote rigour (Meyrick, 2006; Creswell, 2009, Lacey, 2010). Rich, detailed, ‘thick description’ of the methods adopted to complete the study and the findings generated has also been included. This permits readers of the study to assess how transferable the findings are to different contexts (Green & Thorogood, 2014; Holloway & Galvin, 2017). As pre-registration nursing education in the UK is regulated by the NMC and is positioned in HEIs there is opportunity to transfer the research to the wider context of pre-registration nursing education. It is also probable that the research could also be transferred to the wider healthcare education context and possibly other professional education programmes that encompass theory and practice. This is because evidence from the literature illustrates medical, and allied health professional students (Ingram, 1997; Rangel et al., 2001; Opie & Taylor, 2008; Murphy, 2011; Hill, 2015) student teachers and social workers (Stanley et al., 2007; Hill, 2015) all experience similar issues to nursing students with regards to disclosure, attitudes, reasonable adjustments and barriers to accessing fair opportunities.
My awareness and experience of the research process has developed and this has helped me identify the study limitations. A main limitation of the research is the incomplete data set which resulted from access difficulties, HEIs diverse approaches to data management and the availability of reported data in a format that could be managed (quantitative data and documents). Some of the limitations stem from my naivety as a lone novice researcher. I vastly underestimated the time required to do research and it took a while before I realised that my priorities to gain access and gather data were not the priorities of gatekeepers or participants. However a few of these difficulties were part of the real experience of research. With hindsight some of the data may have been available through a Freedom of Information request, although this was assuming that the required data was recorded. It was intended that Phase one participants would share their experiences of supporting students with disabilities in Phase two so there was a clear connection between the two data sets to augment the findings. However only two participants contributed as planned. However, it is uncertain whether this had a significant impact on the reported findings.

Due to being a part-time, self-funding PhD student, the study had to be manageable. Therefore the research is limited because the focus was purely on pre-registration nursing education in Scotland and experiences were only accessed from three key stakeholder groups: AAs, ADCs and PEFs. Thus other key stakeholders were excluded. For example the perspectives of students, mentors, patients and service users have been omitted as have perspectives from stakeholders in more strategic roles (e.g. NMC, service managers). The fact that Phase two participants were self-selecting may not be representative of the experiences of all stakeholders in the included groups.

Furthermore I am aware of my influence on the research, which is another limitation I tried to minimise. This research was in essence a learning journey therefore through reflection and regular discussion with my supervisory team, I have tried to address any issues as they arose. For example the decision to implement the data collection contingency plan was explored to reduce the
potential restrictions caused by self-completion surveys and solely using focus groups. However I am aware that I had a more active role in the individual interviews and this was a limitation because the questions were more directed than in the focus groups which had allowed a more fluent discussion between the participants. Nonetheless I am also aware that I should have had more confidence to probe some of the points but hesitated to do so because I was conscious of my potential influence on the participants.

7.5 Contribution to knowledge

This research study has provided new knowledge about mixed methods research and support for pre-registration nursing students. It is the first research study to specifically explore reasonable adjustments from the Scottish context and the first thesis to conceptualise that reasonable adjustments are a wicked problem. A pragmatic approach to mixed methods research has successfully underpinned this study. The findings have clearly demonstrated reasonable adjustment is a subjective, intractable problem that is difficult to define. Subsequently there are no easy answers to solve this complex, multi-factorial dilemma. In fact there is confusion around the purpose of reasonable adjustment and when it should be applied. Some perceive reasonable adjustment to be criterion-based while others describe it as threshold-based. Criterion-based approaches make the wicked problem tame because support is offered based on criteria which may be underpinned by incomplete knowledge and understanding of the impact of disabilities. For example it is relatively well known that dyslexia may cause difficulties with reading, grammar and spelling. However often it is not acknowledged that dyslexia can impair processing and recall. Thus reasonable adjustments may be offered to address reading and writing challenges but this clearly does not resolve any issues related to processing and recall. Consequently new problems present as students’ needs are not appropriately met.
Threshold-based approaches add to the wickedness of the problem due to fluid boundaries and support being offered inappropriately. Although the NMC provide education standards (NMC, 2010), this study has found that the expected threshold to demonstrate competence in some of the domains is inconsistent. For example the ability to respond in an emergency has a variable threshold, some mentors and academic staff expect students to demonstrate an ability to administer CPR, whereas others only require student nurses to direct the response and delegate to others.

It is well established in the literature that disclosure is an issue and decisions about disclosure are underpinned by identity, benefit-risk analysis and previous experiences. This study corroborates these findings and has also established that disclosure processes in pre-registration nursing education in Scotland are incomplete. Students who opt to disclose can readily access support in HEIs but once reasonable adjustment recommendations are made, students are expected to take responsibility for disclosure in practice settings and initiate evaluation and review of support measures. This is despite the willingness of academic staff to facilitate disclosure, an action that is prevented by confidentiality and data protection policies. Consequently students in practice are ‘forgotten’ by academic staff unless an issue arises. Thus, there is a trichotomy between equality legislation, data protection and meeting professional regulations.

Significant discrepancies in identifying and implementing support in academic and practice settings have been identified. Interpretations and perceptions about reasonable adjustments are diverse and are influenced by attitudes, experiences and values within the different organisational cultures. Mentors are either very accommodating and obliging or very restrictive and unsupportive. There are also varying interpretations of the NMC Standards which results in different expectations of how students demonstrate competence and what support may be required. This is evident between the different fields of practice. Therefore student experiences of practice learning and assessments in practice are both inconsistent and variable. Decisions about support are taken in isolation and the influence of the
support on student performance is not shared between areas. Even where there are attempts to access support and guidance, there is an overall lack of confidence and at times unwillingness by most to recommend support for different contexts.

The expected scope of practice of student nurses compared with employees (e.g. registered nurses) is understandably different. As students progress through their programme of study there is anticipation that as they develop competence, levels of supervision will reduce and the students will work towards adopting the role of the registered practitioner. However, the amount and type of support offered to students compared with employees is variable. Students may not be expected to complete activities whereas employees must. Consequently questions are raised about fitness to practice especially after registration because support facilitated for student nurses is not provided for employees. The opposite experience is also true where support is made available for employees but not for students due to resource implications and stringent interpretation of governance policies. Disappointingly there is limited consideration of alternative support strategies thus the legislation is not always adhered to.

Finally there are moral and ethical dilemmas stemming from this wicked problem. Students spend at least three years studying to gain their NMC registration. For some it may be quite a struggle particularly when they need to demonstrate competence in skills that may never be needed in their chosen area of employment. Also there is a small risk that students’ employment opportunities may be limited if they manage to complete their studies. This study has found an appetite within stakeholders to consider the feasibility of tailored and bespoke programmes to prepare nurses to develop the necessary competences for specific areas of practice. However like any wicked problem there is a distinct need for collaboration between the range of pre-registration nursing stakeholders to firstly explore attitudes, interpretations and values. Once the similarities and dissimilarities are established potential resolution to the wickedness of reasonable adjustments in the different contexts can be explored. This will permit sharing of ‘good’ resolutions so that clear, well-defined local and national guidance can be generated to inform the
identification, implementation and evaluation of reasonable adjustments in pre-registration nursing education.

7.6 Implications for Nursing Education

Despite awareness of the legal obligations and professional requirements to support students with disabilities, this study has clearly demonstrated significant diversity across pre-registration nursing education in Scotland. Stakeholders’ knowledge and understanding as well as management of reasonable adjustments are varied, focus on academic support, and decisions are taken in isolation. Nebulous definitions, limited guidance and disparate procedures result in discriminatory practices that impact on the equity and fairness of learning opportunities for students with disabilities to gain professional registration. Consequently students’ educational experiences are dissimilar and inconsistent, which is in contrast to the intention to offer standardised nursing education.

Processes to support disclosure to permit identification and implementation of recommended reasonable adjustments in HEI and practice settings should be established by stakeholders including students. Students must have access to information about anticipatory adjustments to help inform their disclosure choices. Unless there is a health and safety concern, the nature of a disability may not need to be disclosed. The important issue is students access the support they are entitled to. Students should be fully informed of the benefits of disclosure and signed consent should be requested before sharing information so that students’ confidentiality is not breached. Where a student opts not to disclose this should also be documented and verified by the student. Thus if academic or practice issues arise due to lack of support, it is clear that the student opted not request recommended adjustments.

Opportunities to discuss learning opportunities and support needs are recommended. This is fairly easy to manage in HEIs but may be more difficult for
practice settings. The logistics of offering and facilitating pre-practice learning visits may be challenging due to the geographical diversity of Scottish pre-registration nursing education. However technology e.g. Skype can be used to support planning meetings. Evaluation of the processes to identify and implement reasonable adjustments and the effectiveness of the support is crucial not only to establish that student’s needs are being met but that legal obligations are fulfilled. This will help inform guidance about types of reasonable adjustments that have been effective for different students with experiences of a disability in different contexts. Examples of ‘good’ resolutions should be shared to develop and formalise guidance and procedures locally and nationally.

To address the wickedness of reasonable adjustments nursing education must embrace collaborative working and recognise the equal contributions of theory and practice. It is vital the current dearth of recommended reasonable adjustments for practice settings is addressed. There is a need to identify potential resolutions to facilitate safe and effective nursing practice. However it is essential that support is student-centred and individualised, and expectations of support are fair and realistic. Collaborative working with key stakeholders is needed at local, regional and national levels to offer opportunities for open and transparent communication to air attitudes, beliefs and values. This precursory step is essential prior to proposing resolutions so that misperceptions can be addressed and everyone is aware of the starting point. Thinking laterally and challenging existing perceptions will reduce the inflexibility currently evident in areas of pre-registration nursing education. It is essential to acquire clarification about the standards and competences to be achieved so that boundaries and limits are maintained and risks of failing to fail are prevented.

Often there is a didactic approach to nursing education but there are ways to engage universal design and inclusive curricula to offer individualised student-centred learning. While this is already happening in HEIs, consideration must also be given to facilitating their implementation in practice settings. It is recognised that universal design and inclusivity may negate reasonable adjustments for some
students in certain circumstances e.g. availability of assistive software to allow all students to personalise the display format and readability of documents. Nursing education should also review competence standards to reflect on the best way to facilitate individuals with disabilities to become nurses, even if this means a novel approach to tailored or bespoke programmes. This is imperative to levelling the playing field to permit opportunities for people with key attributes to be nurses in specific areas of practice. Exploring the option for bespoke programmes demonstrates a genuine intention to address the current discriminatory nature of nursing education.

Once agreement has been reached regarding potential reasonable adjustments for specific disabilities in the different contexts of nursing education, academic and practice staff education is essential to increase knowledge and understanding of obligations to provide support and how this can be facilitated. The NMC stipulate mentors must receive disability awareness training so they are familiar with the terms and their roles and responsibilities regarding reasonable adjustments. The training equates to five days preparation followed by annual updates and a triennial review to ensure mentors are effectively supporting students. It is essential education sessions and materials about disability and reasonable adjustments are meaningful and purposeful to encourage academic and practice staff engagement.

7.7 Recommendations

In this section, I offer some recommendations for policy, education and research. There is some overlap because some recommendations cross the three areas. It is my intention to offer suggested resolutions that will reduce the wickedness of reasonable adjustments.
7.7.1 Recommendations for Policy

- The NMC need to organise a review of their current guidelines and policy associated with reasonable adjustments to ensure clarity about appropriate support to *level the playing field* for students with disabilities while preserving appropriate *boundaries and limits*.

- Guidance underpinning HEI and practice partner policies should offer well-defined information about reasonable adjustments, and suggested reasonable adjustments for different disabilities in academic and practice settings.

- Disclosure processes must be developed to include procedures to support disclosure in practice. They should also include specific reference to the need for informed consent so that students give written permission for disability and/or support recommendation to be shared.

- The perceived barriers to students support measures caused by existing policies and procedures must be explored and addressed. For example student use of data recorders to assist processing and recall is not permitted in some areas due to confidentiality and data protection issues. However the same equipment is used by employees so any issues must have been addressed.

- Consideration must be given to ways of reducing the disadvantages experienced by students with disabilities attempting to meet current education standards. It is recommended that the feasibility of tailoring existing programmes and/or introducing bespoke programmes is explored. Tailoring existing programmes relates to a review of the various ways students currently demonstrate competence in each of the domains and how the programmes fit within the HEI governance. This will then facilitate decisions about meeting individual student’s needs to offer fair opportunities to be eligible for registration on their chosen part of the register.

7.7.2 Recommendations for Education

- HEIs should collaborate with practice partners to incorporate inclusive learning and teaching, and universal design in both contexts.
• Academic and practice staff must work in partnership with students to facilitate learning environments conducive to individualised student-centred support.

• Programme providers must recommend reasonable adjustments for both academic and practice settings. Alternative adjustments should be included where it is recognised that a particular adjustment may not be suitable in a particular context.

• Open communication should be facilitated between academic and practice staff, and students with disabilities, to explore options to permit people with specific disabilities to demonstrate their ability to practise safely and effectively without supervision. Tailored programmes of study should be explored to offer opportunities to be eligible for registration.

• Although there are generic competencies that student nurses must acquire at the point of registration, there are also specific competencies associated with each field of practice. Consequently consideration should be given to each student’s field of practice together with their respective field-specific competencies when identifying reasonable adjustments so that the student can be supported to achieve their goal of becoming a registered nurse.

• Simulation environments should be used more extensively to enable student nurses to trial recommended reasonable adjustments that could potentially impact on their practice. If this were to be based in a simulation suite, a basic level of competence could be attained in a safe environment prior to the student undertaking real-life practice based learning experiences. Such opportunities would permit skills to be rehearsed and refined to help develop the student’s confidence in using recommended support measures prior to being exposed to real patients.

7.7.3 Recommendations for Research

• Reasonable adjustments should be explored from the perspectives of other stakeholders (e.g. students with and without disabilities, mentors, service users) to compare and contrast the findings with the findings from this research
• A national study to explore reasonable adjustments in nursing education from a UK perspective should be conducted. This would add to the existing knowledge from Scotland by providing data from the other three UK countries (England, Northern Ireland and Wales). Although there is data from England, I am unaware of studies from Northern Ireland or Wales, therefore it is recommended that all four countries are studied simultaneously.

• A longitudinal study to research reasonable adjustments throughout a student’s journey to registration and employment (prior to course, during course at different stages, prior to registration when seeking employment, within first year of employment) should be conducted. This would provide an opportunity to establish how, when, where, and why reasonable adjustments may vary in the different contexts depending on students’ needs at different stages.

• Accessibility and inclusivity should be explored, and how these concepts may be adopted to support the learning experience of all students, irrespective of disabilities, without compromising professional standards.

• Research should be conducted to explore the various interpretations of professional standards illustrated in this research, and how achievement of the standards are demonstrated by students with and without disabilities. This research should consider whether the different fields of nursing practice hold different interpretations of reasonable adjustments and how competence is demonstrated.

• A comparative study of the factors influencing reasonable adjustments in healthcare education compared with other professional groups who undertake practice learning as part of their programmes should be undertaken. This would facilitate identification of similarities and differences between the different groups and organisations to establish other ‘good’ resolutions to manage the multifactorial influences.

• The role of simulation in supporting students with disabilities needs to be explored in more detail. For example research needs to examine the efficacy of students being able to trial identified reasonable adjustments and the impact
this has on the student in terms of the suitability of the proposed adjustment, and the impact on the student’s practice-based development as a nurse.

7.8 Summary

Having addressed the aims and objectives, this study has conclusively established that reasonable adjustment is a wicked problem that will not be readily solved. The concept of reasonable adjustment is complex, ill-defined and misunderstood. Overall there is an intention by most to provide support for students with disabilities in academic and practice settings but there are diverse perceptions about how this is managed and consequently support – if it is provided – is inconsistent and variable.

Established processes in HEIs allow reasonable adjustments to be identified for students who disclose a disability. However the majority of recommendations focus on academic support with little consideration of support in practice. This was despite the identification of a wider range of reasonable adjustments for practice settings. Thus the process for disclosure needs to be formalised to include practice staff to reinforce the importance of identifying and implementing appropriate and fair support in practice settings as well as HEIs.

It is clear the complexities of reasonable adjustments are associated with a variety of typologies concerning individual, as well as interlinked micro-, meso- and macro-level factors. Implementation of reasonable adjustments is influenced by stakeholders’ attitudes, experiences and understanding of reasonable adjustments as well as their expectations of students’ abilities and performance. There is significant diversity with regards to reasonable adjustments between and across academic and practice settings. In part this is due to individual factors. However meso-level factors also influence theory and practice as well as existing processes concerned with the implementation of reasonable adjustments. Role tension,
nebulous guidance, the identified dichotomy (safety versus risk), and competing demands, impact considerably on reasonable adjustment implementation. At the macro-level there is also tension between perceptions of professional regulation and the law.

It is essential that collaborative working between stakeholders is established to facilitate open discussions about the problem from their diverse perspectives. Suggested resolutions can be debated and agreed before being shared in national guidance which can inform local policies and practices. This will permit pre-registration nursing programme providers in Scotland to meet legal obligations and professional requirements. Hence, they will be able to confidently provide effective reasonable adjustments to support students with disabilities consistently and fairly. Although this study classifies reasonable adjustments as a wicked problem, it is essential any suggested resolutions remain ‘reasonable’ within the given contexts of pre-registration nursing education. What still has not been discerned is what the term ‘reasonable’ actually means.
References


283


286


NURSING AND MIDWIFERY COUNCIL (2010) Standards for Pre-Registration Nurse Education. London: NMC.


NURSING AND MIDWIFERY COUNCIL (NMC) (2007) Essential Skills Clusters (ESCs) for Pre-registration Nursing Programmes, annexe 2 to NMC circular 07/2007 London: NMC


QUALITY ASSURANCE AGENCY FOR HIGHER EDUCATION (QAA) (2014b) *The Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies*. Gloucester: QAA.


ZHANG, D. et al. (2010) University faculty knowledge, beliefs, and practices in providing reasonable accommodations to students with disabilities. Remedial and Special Education. 31(4), pp. 276-286.
NHS Scotland Boards:
1. Ayrshire and Arran (AA)
2. Borders
3. Dumfries and Galloway (DG)
4. Western Isles (WI)
5. Fife
6. Forth Valley (FV)
7. Grampian
8. Greater Glasgow and Clyde (GGC)
9. Highland
10. Lanarkshire
11. Lothian
12. Orkney
13. Shetland
14. Tayside

NHS Scotland Special Health Boards:
- NHS Education for Scotland (NES)
- NHS National Services Scotland
- Healthcare Improvement Scotland
- Scottish Ambulance Service
- NHS Health Scotland
- NHS National Waiting Times Centre
- NHS 24
- The State Hospitals Board for Scotland

HEIs
- Abertay University
- Edinburgh Napier University (ENU)
- Glasgow Caledonian University (GCU)
- Queen Margaret University (QMU)
- Robert Gordon University (RGU)
- University of Dundee
- University of Edinburgh
- University of Glasgow
- University of Stirling
- University of West of Scotland (UWS)

<table>
<thead>
<tr>
<th>HEI</th>
<th>Usual Practice Areas</th>
<th>NES Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abertay</td>
<td>Fife, Tayside</td>
<td>North/ Southeast</td>
</tr>
<tr>
<td>ENU</td>
<td>Borders, Lothian</td>
<td>Southeast</td>
</tr>
<tr>
<td>GCU</td>
<td>GGC, Lanarkshire</td>
<td>West</td>
</tr>
<tr>
<td>QMU</td>
<td>Lothian</td>
<td>Southeast</td>
</tr>
<tr>
<td>RGU</td>
<td>Grampian, Highland, Orkney, Shetland</td>
<td>North</td>
</tr>
<tr>
<td>Dundee</td>
<td>Fife, Tayside</td>
<td>North / Southeast</td>
</tr>
<tr>
<td>Edinburgh</td>
<td>Lothian</td>
<td>Southeast</td>
</tr>
<tr>
<td>Glasgow</td>
<td>GGC, Lanarkshire</td>
<td>West</td>
</tr>
<tr>
<td>Stirling</td>
<td>FV, WI</td>
<td>North / Southeast</td>
</tr>
<tr>
<td>UWS</td>
<td>AA, DG, Highland, Lanarkshire, GGC</td>
<td>North / West</td>
</tr>
<tr>
<td>Author(s) and Year</td>
<td>Title</td>
<td>Setting</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Ashcroft, T.J. and Lutfiyya, Z.M. 2013</td>
<td>Nursing educators' perspectives of students with disabilities: a grounded theory study</td>
<td>Canada</td>
</tr>
<tr>
<td>Botham, K.A. and Nicholson, J. 2014</td>
<td>Supporting the transition of disabled students from university to practice placements</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Brown, K., James, C. and Mackenzie, L. 2006</td>
<td>The practice placement education experience: an Australian pilot study exploring the perspectives of health professional students with a disability</td>
<td>Australia</td>
</tr>
<tr>
<td>Carey, P. 2012</td>
<td>Exploring variation in nurse educators' perceptions of the inclusive curriculum</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Child, J. and Langford, E. 2011</td>
<td>Exploring the learning experiences of nursing students with dyslexia</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Colon, E. J. 1997</td>
<td>Identification accommodation, and success of students with learning disabilities in nursing education programs</td>
<td>USA</td>
</tr>
<tr>
<td>Crouch, A. 2008</td>
<td>Needs / experiences of dyslexic students and support in clinical</td>
<td>United Kingdom</td>
</tr>
</tbody>
</table>
midwifery dyslexic students in clinical practice and ways in which staff could support those students to help draw guidelines on how best the needs of those students could be met while in clinical practice. Coding documentation. Mentors need fully informed about dyslexia and types of support required by students to promote safe practice. Mentors regard discussion about disability and support needs 'sensitive'. Students may opt not to disclose due to fear of stigma, different treatment, being perceived as stupid; thus support not available. Students had strategies (write it down, repeat everything, use technology) to minimise error but some strategies (e.g. avoidance of answering phone when multitasking required [listening and note-taking]) were inappropriate; errors still occurred. Students recognised risk to safety, but not raised by mentors. Positive mentor approaches essential but support sometimes inappropriate.

Evans W. 2014a
I am not a dyslexic person I'm a person with dyslexia': Republic of Ireland To introduce how nursing students discursively construct 12 student nurses with dyslexia Qualitative: discourse based design. Semi structured interviews. Student nurses with dyslexia place their dyslexic identity on a continuum between embrace and resist. Embracers - open and willingly disclose to Risk Disclosure Guidelines, policy and procedure Attitudes, knowledge and decision making,
| identity constructions of dyslexia among students in nurse education | their dyslexic identities | Leading identity analysis and thematic analysis | proactively seek support to manage difficulties. Resisters resist their dyslexic identity - still have to meet nursing standards. Passive engagers between other two categories. Passive engagers do not disclose but highlight difficulties to support staff. Disclosure influenced by academic and practice staff understanding of dyslexia and attitudes about people with dyslexia being nurses, and concerns about being perceived as different from other students. 9/12 students linked their dyslexic identity to 'being stupid'. Disclosure is complex: influenced by context and experiences. | Disclosure |
"If they can't tell the difference between duphalac and digoxin you've got patient safety issues". Nurse lecturers' constructions of students' dyslexic identifies in nurse education.

To explore how student nurses with dyslexic identity were discursively constructed by lecturing staff in nurse education.

12 nurse lecturers

**Qualitative:** discourse based design. Semi structured interviews and vignettes. Discourse analysis

Two main themes illustrate language and meaning nurse lecturers attributed to student nurses with dyslexia: 1. 'Getting the work done' - describes what nursing involves and expectations that student nurses should be physically able to complete nursing activities. Providing support to students with dyslexia was akin to babysitting - lack of awareness of legal obligation. Tension duty of care - patient v student. Nursing only for the able.

2. 'Severe dyslexic student' - not able to achieve competencies; patient safety issues, require reader/scribe. No recognition of how issues associated with dyslexia may be resolved. Paternalistic views

Attitudes, knowledge and decision making

Risk

Guidelines, policy and procedure
| Title | Supporting disabled students in practice: A tripartite approach | United Kingdom | To describe the development of a six-phase, tripartite model that provides a supportive framework for disabled student nurses in the practice environment | Case: One student nurse with Myalgic Encephalopathy | Qualitative: Case study Involved Occupational Health, Disability Service, Practice Team, Link lecturer, mentor, student. Review and evaluation at each phase | There may be resistance and negative attitudes displayed by staff asked to mentor students with disabilities. Practice staff have limited awareness of learning needs of disabled students and support adjustments. Positive case studies which illustrate information, education and successful functioning of students with disabilities as safe and effective practitioners will promote a positive change in attitudes and culture. Disability should not be a label to define a person. Ongoing academic staff education is required to improve the education provision for students with disabilities and to support the students with their recurring decision about whether to disclose. Support requires to be tailored and should involve the student in decisions |

| Authors | Griffiths, L., Worth, P., Scullard, Z. and Gilbert, D. 2010 |  |  |  |  |  |

| Title | The preparation and experiences | United Kingdom | To explore the experiences | 9 disabled students, 6 disabled | Mixed methods: semi-structured | 95% believed there was prejudice against disabled people. Disability perceptions |

| Authors | Hargreaves, J., Dearnley, C.; Walker,  |  |  |  |  |  |
practice of disabled healthcare practitioners: exploring the issues

and preconceptions of healthcare practitioners and healthcare students with disabilities in relation to disabled health practitioners.

registered practitioners were interviewed; 96 qualified professionals were surveyed

interviews and survey. Analysis - thematic and descriptive statistics

linked to medical and social models. Respondents concerned about supporting disabled students; did not know enough about disability and reasonable adjustments. Concerns about fitness to practise. Different concepts of disability reported. Students concerned disclosure resulted in being treated differently. Fear of risk from non-disclosure. Disclosure proactive or reactive. Tension - knowing about disability vs entitlement to confidentiality. Reasonable adjustments may alter context of assessment criteria. Some adjustments not reasonable - teasing this out is difficult. Patient care is benchmark - safety compromised if disabled staff less able or increase other’s workload. More difficult to apply legislation in practice. More education required. Disability is too diverse to be covered by one policy. Need open discussion about competency and fitness to
| Hill, S. 2015 | Transition to professional practice placements: improving the experience of disabled and non-disabled students | United Kingdom | To investigate the experience of disabled and non-disabled students on practice placements across six professional disciplines | 353 students from nursing, midwifery, medicine, dentistry, education, social work and community education (survey). 21 students (interview) | Mixed methods: semi-structured interviews and survey. Analysis - thematic and statistical | Placement experiences valued but less so by disabled students. Education and nursing students less likely to disclose than other students. Clarity required about expectations of students on placement and responsibilities of staff. Travel impacted on academic workload and placement responsibilities especially for students with disabilities. Pre-placement planning should support disclosure and identification of individualised adjustments. Reaction of others influenced by medical model, particularly in nursing and medicine. Placement experience influenced by organisational culture. Effective communication between HEI and placement required so aware of roles and responsibilities. Recommend Inclusive approach since disabled and non-disabled students. | Disclosure Guidelines, policy and procedure Influence of the education location |
| Howlin, F., Halligan, P. and O’Toole, S. 2014 | Evaluation of a clinical needs assessment and exploration of the associated supports for students with a disability in clinical practice: part 2 | Republic of Ireland | To evaluate a clinical needs assessment for students with a disability and explore their experiences of support in clinical practice. | 4 disabled student nurses | Qualitative: semi structured interviews Content analysis | Disclosure difficult to clinical staff - staff attitudes, environment (changes in staff, busy area, lack of time) and personal factors. Preceptor lacked knowledge of disability and support measures. Clinical contact usually communicates with key placement staff. Disclosure linked with explaining disability not required adjustments. Disclosure linked to patient safety Receiving support - positive and negative experiences. Some staff do not understand the challenges caused by some disabilities e.g. processing and memory issues. Shift patterns - long and tiring or grouped days off and frequent breaks. Students may use own strategies to cope on placement. Tension between meeting student's needs and meeting practice demands. Greater guidance required | Attitudes, knowledge and decision making Risk Disclosure Guidelines, policy and procedure |
| Ingram, D. 1997 | Opinions of physical therapy education program directors on essential functions | USA | To determine the opinions of directors of physical education programs concerning essential functions physical therapy students must be able to complete with or without reasonable accommodation | 58 Programme Directors | **Quantitative**: Delphi technique - 3 survey rounds | General agreement regarding the essential functions required of a physical therapist. Main issue was concept of reasonable accommodation; what is 'reasonable' at one institution was not 'reasonable' at another institution. If a task is an essential function may be reasonable to have someone else assist with the performance of the essential function but not actually perform the entire function for the individual with the disability. Therefore guidelines suggesting reasonable accommodations for each essential function should be developed but used on an individual basis. Everyone has unique issues | Guidelines, policy and procedure | Influence of the education location |
Kolanko, K.M. 2003

A collective case study of nursing students with learning disabilities

USA

To describe the meaning of being a nursing student with a learning disability and examine how baccalaureate nursing students with learning disabilities experience various aspects of the nursing program.

7 disabled student nurses

Qualitative Case Study two individual interviews for each student and documentary analysis. Thematic analysis

Five themes: struggle, learning how to learn with LD; issues concerning time; social support, and personal stories. Nursing students with learning disabilities can be assisted by direct instruction, structure, consistency, clear directions, organizations and positive attitudes. Barriers to learning include anxiety, social isolation and time limits when undertaking and processing work. Educators should use personal and educational stories to gain an understanding of the experiences of students with learning disabilities. The information can be used to develop guidelines and policies for supporting students with learning disabilities.

Attitudes, knowledge and decision making

Guidelines, policy and procedure
| Maheady, D.C. 1999 | Jumping through hoops, walking on egg shells: the experiences of nursing students with disabilities | USA | "To describe the experiences of nursing students with disabilities; examine admission guidelines and accommodations and investigate experiences of patients, faculty, nurses, and other students to better inform nurse educators about those issues." | Qualitative - Multiple case study using interviews, observation and document analysis. Modified version of Colaizzi's data analysis. | Six themes: 1. supported in diverse ways - support available through various people including family, friends, faculty and religion. Some accommodations were self-initiated, technological or institutional. 2. encounter more attitudinal barriers than physical barriers - negative attitudes impact on students' self-esteem and confidence. Concerns regarding patient safety with hearing impaired students. Core performance standards used during admission procedures. Students with mobility barriers not assigned specific patients. 3. "jump through hoops" to success in nursing programs - determination and persistence demonstrated by students. 4. "walk on eggshells" because of the fear of the consequences of disclosure 5. personal experiences benefit themselves and patients by "turning the tables" - better nurses because of personal experiences 6. "put their pants | Attitudes, knowledge and decision making | Risk Disclosure Guidelines, policy and procedure |
on" generally the same way as their peers - they wish to be treated like their peers. Legislation needs endorsed by nursing programs to ensure equal opportunities for access. Some students access nursing programmes without disclosing disabilities. Admission and retention decisions should be individualised based on guidelines, promoting successful student outcomes and patient safety. Suitable adjustments should be implemented to meet individual needs to maintain nursing standards and promote patient safety.
| Morris, D. and Turnbull, P. 2006 | Clinical experiences of student with dyslexia United Kingdom | To explore the clinical experiences of student nurses with dyslexia and its potential influence on their practice. | 18 nursing students with dyslexia | Qualitative: Exploratory Interviews Thematic analysis | Five themes: 1. disclosure - an issue for all. Influenced by culture in practice and whether disclosure seen as advantageous. 2. self-managing strategies - notepad or voice recorded to aid memory; borrowing equipment to practise. Avoidance strategy. Potential for unsafe practice - confirmation of calculations sought from mentors. 3. the need for more time - to maintain patient safety, 4. emotional aspects of being a dyslexic nursing student - negative connotations of label, being different, influenced by reactions of others. 5. choice of future work setting - influenced by impact of dyslexia. Legal and ethical responsibility of nurse educators to ensure patient safety - risks of medication errors, communication difficulties, use of avoidance strategies, problems with coordination and dexterity, short term memory problems | Attitudes, knowledge and decision making Risk Disclosure Guidelines, policy and procedure Influence of the education location |
and distraction in busy environments. Participants aware of limitations and strategies to overcome them. Screening for dyslexia/dyscalculia at recruitment/selection phase should be considered. Students causing potential threat to patient safety may not be permitted to continue. Stark contrasts between the supportive culture at University and that of placement, which influenced disclosure. Guidance required from NMC. Adjustments must exist in practice and HEIs to support dyslexic nursing students to succeed without discrimination and use of self-identified strategies.

Murphy, F. 2011  On being dyslexic: student radiographers' perspectives  United Kingdom  To explore the clinical experiences of radiography students with dyslexia and the

37 student radiographers (14 dyslexic students; 23 non-dyslexic students) (10 participated in Phase two; 8 were dyslexic)  Mixed methods: questionnaires and in-depth interviews. Thematic analysis  No self-reported difference (only 31% response) in performing tasks between two student groups. Support for dyslexic students in HEIs very comprehensive but varied slightly between HEIs. Lack of understanding of dyslexia and support experiences mixed.  Attitudes, knowledge and decision making  Risk  Influence
potential impact of this disability on their practice.

| Six themes: 1. visualising the disability - negative feedback impacted on self-esteem and identities. 2. Self-protection - self-awareness of limitations promoted double checking or avoidance strategies. 3. Strengths and talents - spatial awareness and organisation skills. 4. time - more needed but recommendations ignored on placement. Tiredness caused poorer performance - students aware of potential for errors. 5. Badge of disability - labelled as different, discrimination. Some ignorance of disability and lack of understanding re support. Stereotyped and isolated. 6. Adjustments and support - need for inclusive support for all to ensure anticipatory adjustments in practice. Students developed complex coping strategies not shared with others. Recommendations made for adjustments and support. Early positive interventions essential and disability of the education location |
support mentors should be identified. All students should have access to iPod (provide audible and visual prompts, store images and be a valuable resource). Clinical learning contracts required

Nolan, C., Gleeson, C., Treanor, D. and Madigan, S. 2014

Higher education students registered with disability services and practice educators: issues and concerns for professional placements

Republic of Ireland

To identify the issues and concerns of practice educators (PEs) in both supporting students with disabilities and exploring the concerns for students with disabilities on professional courses.

68 Practice Educators; 63 students with disabilities (education, social work, speech and language therapy, deaf studies, human nutrition, dentistry, medicine, nursing, occupational health, physiotherapy, radiation therapy)

Quantitative: two survey questionnaires (open and closed questions) One questionnaire for Practice Educators and one for students with disabilities. Statistical analysis and qualitative descriptive analysis

PE - majority not aware student had disability and were not involved in planning. Recognised students with disabilities require individualised reasonable accommodations. Learning Education Needs summary (LENS) had academic focus. PE felt able to offer reasonable accommodations and altered assessments if needed. Concerned about students reaching professional standards of competence (Time and level of support in busy areas impact on service, duty of care and patient safety), provision of appropriate support (appropriate level while meeting standards) and health issues if disability not disclosed. Education required.

Risk Disclosure Guidelines, policy and procedure
Opie, J. and Taylor, M.C. 2008

An exploratory Delphi study on the integration of disabled students into physiotherapy education.

United Kingdom

To achieve consensus on the attributes required for a competent physiotherapist and to explore implementation of the DDA into physiotherapy education.

13 Physiotherapy Admission tutors in England

Mixed methods: Delphi technique 3 rounds. Consensus (minimum agreement 55%) and thematic analysis

A single essential functions list should be provided by Chartered Society of Physiotherapists or HCPC to prospective students to ease transition through self-assessment. Three themes: 1. necessary levels of ability - debate particularly about whether physiotherapists require manual dexterity. 2. Support - more available in HEI but dependent on early disclosure. Concerns re additional workload to support disabled students. Attitudes influenced by vulnerability caused by lack of knowledge and inexperience. 3. Concept of conditional qualification - debate regarding need for generalist
Rangel, A., Wittry, A., Boucher, B. and Sanders, B. 2001
A survey of essential functions and reasonable accommodations in physical therapist education programmes
USA
To gather current data regarding the extent to which accredited Physical Therapist education programmes incorporate essential functions
112 Physiotherapy programmes
Quantitative survey questionnaire (closed questions) Statistical analysis
An increased number of PT programmes use a list of essential functions in attempt to objectively meet the needs of students with disabilities and adhere to Americans with Disabilities Act. This facilitates admissions, implementation of reasonable accommodations to meet students’ needs and promotes successful completion of the programme.
Guidelines, policy and procedure

Ridley, C. 2011
The experiences of nursing students with dyslexia
United Kingdom
To explore the experiences of pre-registration nursing students with dyslexia
7 nursing students with dyslexia
Qualitative Semi structured Interviews. Thematic analysis
Four global themes: 1. dyslexia as a defined disability - positive and negative perspectives. 2. dyslexia as a professional issue - participants aware of patient safety responsibilities. Negative attitudes influence disclosure. Lack of
Attitudes, knowledge and decision making
Risk Disclosure
3. Living with dyslexia - self-awareness, reflection, being different (label).

4. Support for dyslexia - support measures and positive relationships facilitate achievement. Students found disclosure in clinical setting more challenging than the university setting. Case law to confirm what is reasonable adjustment in dyslexia but needs to be individual and relies on disclosure. Short placements and frequent changes of mentor make building a relationship difficult. Tailored guidance and support important to meet individual student’s needs. Commitment to meeting legislative demands should be tangible in educational programmes of study, learning environments and clinical settings.

| Sanderson-Mann, J., Wharrad, H.J. and | An empirical exploration of the United Kingdom | To compare the experiences of dyslexic 7 lecturer-practitioners (interviewed) 9 student | Mixed method: semi structured interviews and questionnaire. | Mentors require to treat students as individuals and have better understanding of dyslexia. Disclosure influenced understanding re disclosure processes and who informed. | Guidelines, policy and procedure Influence of the education location |

- Attitudes, knowledge and decision
McCandless, F. 2012

Impact of dyslexia on placement-based learning, and comparison with non-dyslexic students

and non-dyslexic student nurses during clinical placement

nurses with dyslexia (interviewed) 54 students with dyslexia and 52 non-dyslexic students (questionnaire)

Framework analysis (interviews); statistical analysis (questionnaires)

by reactions, perceived benefits, time in area, relationships. Students feel isolated and different. Concerns re competence to practice and patient safety. Tension support may not be available once qualified; comply with legislation v patient safety. Failure to fail culture. Mental health did not feel disclosure was crucial. Students should disclose because mentor responsible for problems. Lack of difference between two groups of students in many placement learning tasks. Diversity of placements makes generalised reasonable adjustments difficult.
<table>
<thead>
<tr>
<th>Authors</th>
<th>Title</th>
<th>Country</th>
<th>Study Aim</th>
<th>Sample Size</th>
<th>Data Collection</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shpigelman, C.N., Zlotnick, C. and Brand, R. 2016</td>
<td>Attitudes towards nursing students with disabilities promoting social inclusion</td>
<td>Israel</td>
<td>To capture nursing students' perspectives of social inclusion through examination of their attitudes toward nursing student colleagues with disabilities</td>
<td>270 nursing students</td>
<td>Quantitative: structured survey questionnaire. Statistical analysis</td>
<td>Nursing students had negative attitudes towards peers with disabilities due to preconceptions about whether people with physical disabilities can become nurses. Need to promote cultural competence and inclusion in nursing. Removal of social barriers (e.g. attitudes) will permit people with disabilities to become nurses.</td>
</tr>
<tr>
<td>Sowers, J. and Smith, M.R. 2004a</td>
<td>Nursing faculty members' perceptions, knowledge, and concerns about students with disabilities</td>
<td>USA</td>
<td>To obtain a clearer picture of faculty attitudes and knowledge regarding individuals with disabilities who wish to be or are students</td>
<td>88 Nursing academic staff</td>
<td>Quantitative: Survey questionnaire. Statistical analysis</td>
<td>Attitudes are a barrier to nursing education - less positive about learning disability (hidden) than hearing impairment or wheelchair users. Accommodations focussed on academic setting. Expectations that nursing students need to meet standards in a list of physical attributes and skills although may choose to work in an area not requiring these skills. Respondents recognised a need for training particularly</td>
</tr>
</tbody>
</table>

Attitudes, knowledge and decision making, Risk, Guidelines, policy and procedure; Influence of the education
<p>| Location | Evaluation of the effects of an in-service training program on nursing faculty members' perceptions, knowledge, and concerns about students with disabilities | USA | To evaluate the effects of an in-service program on the perceptions, knowledge and concerns of nursing faculty members about students with disabilities | 112 nursing faculty | Quantitative survey questionnaire. Statistical analysis | Universal design strategies enhance learning and performance of all students, and decrease number of accommodations needed by students with disabilities. Academic staff knowledge, perceptions and concerns can be positively impacted upon through training. Improved knowledge of teaching and accommodations in classroom and clinical settings reported. Less concerned about patient safety after training and viewing real-life nurses with disabilities who were practising. After training staff were more positive about SpLD | Sowers, J. and Smith, M.R. 2004b | Attitudes, knowledge and decision making, Influence of the education location Risk |</p>
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Country</th>
<th>Research Design</th>
<th>Sample Descriptions</th>
<th>Methods</th>
<th>Findings</th>
<th>Disclosures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stanley, N., Ridley, J., Manthorpe, J., Harris, J. and Hurst, A.</td>
<td>Disclosing disability: disabled students and practitioners in social work, nursing and teaching</td>
<td>United Kingdom</td>
<td>To explore the process and consequences of disclosing disability from the perspective of disabled professionals (students and qualified practitioners) and how disclosure could be promoted.</td>
<td>60 disabled professionals (20 social work; 10 students; 21 nurses; 4 students; 19 teachers; 8 students)</td>
<td>Qualitative: semi structured interviews. Thematic analysis</td>
<td>Disclosure experiences were positive, negative or mixed. Regulatory bodies seen as remote. Variable readiness to accept a disability label although this influenced availability of adjustments. Disability associated with physical disabilities. Disclosure is repetitive, need to disclose at every new placement. Pros and cons of disclosure influenced decision - stigma was a major barrier and positive and supportive organisational culture promoted disclosure. Attitudes were influential in reactions to disclosure and availability of adjustments. Student support more readily available in HEI than practice. Clear processes for disclosure required and guidance about consequences for individuals. Disability awareness training recommended and positive stories should be shared.</td>
<td></td>
</tr>
<tr>
<td>Tee, S. and Cowen, M.</td>
<td>Supporting students with</td>
<td>United Kingdom</td>
<td>To evaluate resources used to support nurses with disabilities</td>
<td>Qualitative Action Research;</td>
<td>Mentors reported improved understanding of needs of disabled people and support</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Attitudes, knowledge and decision making, Disclosure, Guidelines, policy and procedure; Influence of the education location |
| disabilities - promoting understanding amongst mentors in practice | prepare mentors to address the specific learning needs of disabled students | provided experiences used to prepare materials for mentors. Numbers unclear Mentors | interviews with students; open-ended questionnaire (mentors) Analysis - thematic for learning. Attitudes, beliefs, preconceptions require exploration. Reasonable adjustments can be implemented without compromising professional standards. Implementing reasonable adjustments in practice requires a close partnership relationship between HEIs and mentors. Practice experiences greater uncertainty and unpredictability which provides unique challenges for inducting, supporting, teaching and assessing nursing students. Mentors found the use of 'real stories' and 'experiences' as learning resources beneficial in raising awareness of aspects that were not previously considered. |

Tee, S., Owens, K., Plowright, S., Ramnath, P., Rourke, S., James, C. and Bayliss, J. | Being reasonable: supporting disabled nursing students in practice | United Kingdom | To analyse recurring adjustments made in practice settings and the support 27 nursing students; 4 Student Practice Learning Advisors (SPLAs) | Mixed method Case Study Evaluation: demographic data, case summaries, interviews and Referrals for support increased in final year as increasing demands and levels of performance expected. Effective and coordinated support required including additional time to learn, |

Guidelines, policy and procedure; Influence of the education location | decision making; | Attitudes, knowledge and decision making, Guidelines,
<table>
<thead>
<tr>
<th>Year</th>
<th>Researcher</th>
<th>Country</th>
<th>Study Title</th>
<th>Methods</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td>Strategies put in place to enable disabled students to achieve the levels of proficiency required on pre-registration nursing programmes.</td>
<td>Reflective accounts. Analysis - Descriptive statistics; thematic analysis</td>
<td>Rehearse and become proficient in clinical skills. Academic adjustments can be straightforward, but determining 'reasonableness' in diverse clinical settings provides complex challenges. A number of stakeholders are involved in identifying reasonable adjustments. SPLAs (conduit) support disabled students, operationalise recommended adjustments in practice and liaise with experts as necessary. Professional fitness standards not compromised. Awareness of successful strategies to support students with a range of diverse needs to achieve professional competence and proficiency. Support individualised based on student need and experience.</td>
</tr>
<tr>
<td>2007</td>
<td>White, J.</td>
<td>United Kingdom</td>
<td>Supporting nursing students with dyslexia in clinical</td>
<td>Qualitative Case study: stage 1 (semi-structured interviews, questionnaire,</td>
<td>Challenges with language, time and negative attitudes impact on confidence, performance and self-esteem. Disclosure required to access support for learning needs but</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>To determine whether pre-registration nursing students Phase one: 8 admission tutors; 3 specific learning needs support</td>
<td></td>
<td>Attitudes, knowledge and decision making</td>
</tr>
</tbody>
</table>
practice with dyslexia experience specific problems in developing clinical competence, identify what strategies they use and how they may be supported in clinical practice (officers; 7 students with dyslexia; 9 clinical mentors).

Phase two: 4 students, 7 mentors (policy document review); Stage 2 - longitudinal study (4 students) semi-structured interviews. Thematic analysis decision based on potential consequences, attitudes, labelling, and placement culture (enabling/disabling).

Students prefer longer placements. Each student's experience in practice is unique due to the range and severity of difficulties experienced thus support should be individualised.

Mentors and staff teaching students with specific learning difficulties require preparation and ongoing support to fulfil their role, including access to expert advice. Relationships should be open and non-judgemental. Students with dyslexia must be collaborative partners in determining how to meet their learning needs. Admissions staff tension: uphold the rights of students v potential risk posed to patients.
| Wray, J., Aspland, J., Taghzouit, J. and Pace, K. 2013 | Making the nursing curriculum more inclusive for students with specific learning difficulties (SpLD): embedding specialist study skills into a core module. | United Kingdom | To explore the impact of embedding nine study skills sessions designed for students with SpLD into the mainstream curriculum. | 300 Pre-registration nursing students | **Quantitative** Multiple methods: questionnaire, time to contact Disability services; progression data. Statistical analysis | Positive benefits of embedding study skill sessions in the curriculum for students with SpLD included quicker contact with support services, increased referral rates, progression and perceived satisfaction. Requests for examples of application to practice. Including the study skills previously regarded as reasonable adjustments in the curriculum resulted in time- and resource-savings for the institution, and more appropriate approaches to learning were adopted. Retention improved. | Disclosure Guidelines, policy and procedure | Influence of the education location |
## Appendix 3: Critical appraisal checklist (adapted from CASP, 2017)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashcroft and Lutfiyya (2013)</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Botham and Nicholson (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Brown et al. (2006)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Carey (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Child and Langford (2011)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Colon (1997)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Crouch (2008)</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Crouch (2010)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Evans (2014a)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Evans (2014b)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Griffiths et al. (2010)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hargreaves et al. (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hill (2015)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Howlin et al. (2014b)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ingram (1997)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Kolanko (2003)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Maheady (1999)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Morris and Turnbull (2006)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Murphy (2011)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Nolan et al. (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Opie and Taylor (2008)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Rangel (2001)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ridley (2011)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Sanderson-Mann (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Shpigelman (2016)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Sowers and Smith (2004a)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Sowers and Smith (2004b)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Stanley et al. (2007)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Tee and Cowen (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Tee, S. et al, 2010</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>White (2007)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Wray et al. (2013)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Appendix 4: University of Manchester ethics approval

Ref: ethics/14001

Prof. Ann Wakefield,
School of Nursing, Midwifery and Social Work,
Room 5.326, Jean McFarlane Building

10th February 2014

Dear Prof. Wakefield,

Research Ethics Committee 4
[Craig Wakefield, Pryjmachuk: An exploration of the concept of reasonable adjustments to support student nurses with disabilities within pre-registration nurse education in Scotland (ref 14001)]

I write to thank you for coming to meet the Committee on 29th January 2014 and to confirm that it gave the above research project, after the submission of amendments / clarifications, a favourable ethical opinion.

This approval is effective for a period of five years and if the project continues beyond that period it must be submitted for review. It is the Committee’s practice to warn investigators that they should not depart from the agreed protocol without seeking the approval of the Committee, as any significant deviation could invalidate the insurance arrangements and constitute research misconduct. We also ask that any information sheet should carry a University logo or other indication of where it came from, and that, in accordance with University policy, any data carrying personal identifiers must be encrypted when not held on a university computer or kept as a hard copy in a location which is accessible only to those involved with the research.

Finally, I would be grateful if you could complete and return the attached form at the end of the project or by the end of December 2014.

We hope the research goes well.

Yours sincerely,

[Signature]

Dr Deborah Bentley
Secretary to University Research Ethics Committee 4
Research Participant Recruitment

- Are you a nursing academic or Practice Education Facilitator?
- Do you have responsibility for supporting student nurses with disabilities?

If yes, you are invited to participate in a research study to explore reasonable adjustments available when supporting pre-registration nursing students who have a disability or additional needs.

If you are interested in participating in the study or wish further information before you decide, please email AnneMarie Craig at annemarie.craig@postgrad.manchester.ac.uk by Monday 7th December 2015.

Thank you for your consideration.
Monday 19th January 2015

Dear Colleague

I am currently undertaking a research study to explore what is meant by reasonable adjustments when supporting pre-registration nursing students who have a disability or additional needs.

I would like to invite you to participate in the research because you have been identified as fulfilling a role with responsibility for supporting student nurses with disabilities.

The study involves two phases. Depending on your role you may be invited to participate in one or both of the phases. Phase one will require you to complete a telephone survey, and phase two will involve focus group participation to discuss your experience of supporting students with disabilities and the reasonable adjustments the students may require.

If you are interested in participating in the study or wish further information before you decide, please email me at annemarie.craig@gcu.ac.uk

Thank you for your consideration

Kind regards

AnneMarie Craig
Lecturer (Adult Nursing) / Academic Disability Coordinator
PhD student
Appendix 7: Phase one participant information sheet

Survey Information Sheet (Phase one Version 4 February 2014)

Introduction

You are being invited to take part in a research study that is being undertaken to fulfil the requirements of a Doctor of Philosophy (PhD) degree. The study is designed to explore what is meant by the term reasonable adjustments when supporting pre-registration nursing students who have a disability or additional needs. This study is divided into two parts. Phase one involves completing a telephone survey. A copy of the questions you will be asked as part of the survey is attached to this email.

Before deciding whether or not you wish to take part in the research, please take the time to read the information below and if you have any questions or should you require further information, please feel free to contact me via the email address located at the end of this document.

What is the purpose of the study?

The purpose of the study is to try to establish what mechanisms are offered by universities and clinical placement providers to support student nurses with disabilities both in theory and practice and to explore what the term ‘reasonable adjustment’ means to those staff responsible for offering these different support mechanisms to student nurses who have a disability.
Why have I been chosen?

You are being invited to participate in this research because you are currently involved in pre-registration nurse education in Scotland and have responsibility for supporting student nurses with disabilities.

What would I be asked to do if I took part?

If you agree to participate in phase one of the study, you will be required to complete a telephone survey at a mutually agreeable time, which will take approximately 30 minutes. In addition, at the end of the telephone survey you will be asked if you would be willing to take part in a the second phase of the study, which will involve you being asked to take part in a 90 minute focus group study with up to 10 other participants.

Do I have to take part?

No. It is completely your decision whether you wish to take part in the research or not. If I have not heard from you in two weeks I will email again, once only, just in case this message has got lost in your in box. If I have still not heard from you after this time I will assume that you do not wish to take part, and you will not be contacted again.

What are the benefits of taking part?

You will be helping to add to the body of knowledge about reasonable adjustments and how students with disabilities requiring additional support needs can be effectively and sensitively managed to successfully complete their nursing programme.
What are the risks of taking part?

There should not be any risk to you due to completion of the telephone survey. If you provide your details to arrange the telephone survey it will be assumed that you have agreed to take part in the first phase of the study.

What will happen to the information collected during the research study?

The telephone survey form will be coded only with a number after which the data will be subject to descriptive statistical analysis using encrypted computers and secure servers to analyse and store the data.

What if something goes wrong?

If there are any issues regarding this research that you would prefer not to discuss with members of the research team, please contact the Research Practice and Governance Co-ordinator by either writing to 'The Research Practice and Governance Co-ordinator, Research Office, Christie Building, The University of Manchester, Oxford Road, Manchester M13 9PL', by emailing: research.complaints@manchester.ac.uk, or by telephoning 0161 275 7583 or 275 8093.”

Who has reviewed the study?

This study has been reviewed by University of Manchester Research Ethics Committee.

What do I need to do now?

If you are willing to participate in the telephone survey, please confirm to me by email that you want to proceed so that a mutually convenient time can be arranged. The
confirmatory email will then be sent to you in order to agree when it would be best for me to contact you and on what telephone number. In addition verbal consent to your taking part in the survey will be sought at the start of the telephone survey, which will be considered as formal confirmation that you have consented to take part in the first phase of the study.

At the end of the telephone survey you will be asked if you are willing to participate in phase two of the study. If you agree you will be sent a further letter of invitation an information sheet and written consent form to confirm that you are willing to be involved and that you have been fully informed about what phase two of the study will involve.

Contact for Further Information

For further information about the research please contact:

AnneMarie Craig at annemarie.craig@postgrad.manchester.ac.uk

Thank you for reading this information and for considering taking part in this research
Appendix 8: Phase one survey (after pilot amendments)

An Exploration of Reasonable Adjustments to Support Students with Disabilities in Pre-registration Nursing Education in Scotland

Thank you for agreeing to participate in a telephone survey which is part of the data collection for a PhD. To assist you to prepare for the telephone survey which will take place at a mutually convenient time to be arranged, please review the questions below. The information you provide during the telephone survey will be treated in the strictest confidence as it will be fully anonymised using a unique code in case I need to clarify any aspects (such as missing data) with you at a later date. However rest assured that only anonymised data will be used during the analysis and in any subsequent documents or publications generated as part of this study.

The purpose of the telephone survey is to gather data about the number of student nurses with disabilities that you support within your pre-registration nursing programme(s), the types of disabilities the students have, the reasonable adjustments that are offered in academic and clinical/practice (placement) settings; and details about how you facilitate the implementation of any reasonable adjustments that are identified. The information produced from the survey will be used to provide descriptive statistical information about the numbers of student nurses with disabilities and what measures are currently available to support these students during their pre-registration nurse education.

1. In relation to supporting student nurses with disabilities, what is your role within the Approved Education Institution (University)? (Please tick all that apply)
   a) Lecturer 
   b) Academic Disability Coordinator within Nursing Department/School
   c) Disability Adviser within University
   d) Academic Advisor / Link or Liaison Lecturer
   e) Placement Coordinator
   f) Programme Lead
   g) Head of Nursing Education
   h) Other: please specify .................................................................

2. What pre-registration nursing education programmes do you currently offer? (Please specify the degree qualification and field of nursing practice)

<table>
<thead>
<tr>
<th>Qualification e.g. BSc, BA, SN</th>
<th>Field of Nursing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adult</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. How many pre-registration nursing students are currently on your programmes? (Please specify numbers on the different programmes as outlined above. If you do not have access to the exact figure, please provide the best estimate)

<table>
<thead>
<tr>
<th>Programme</th>
<th>Year of Programme</th>
<th>Total Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st</td>
<td>2nd</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. How many pre-registration nursing students on your programmes have a disability?
(Please specify numbers on different programmes as outlined above, including fields of nursing and year of study. If you do not have access to the exact figure, please provide the best estimate)

<table>
<thead>
<tr>
<th>Programme</th>
<th>Year of Programme</th>
<th>Total Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g. BN (Child); BA (Adult)</td>
<td>1st</td>
<td>2nd</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Based on the Universities and Colleges Admissions Service (UCAS) classification (below), please specify the programme, year of study, and enter how many students have the following disabilities (If you do not have access to the exact figure, please provide the best estimate):

**UCAS Disability Codes:**
1) Specific Learning Difference (SpLD) i.e. dyslexia, dyscalculia, dyspraxia, dysarthria
2) Social/Communication impairment i.e. Asperger's Syndrome or Autistic spectrum disorder
3) Blind/visual impairment uncorrected by glasses
4) Deaf/serious hearing impairment
5) Long term condition or illness i.e. cancer, HIV, diabetes, chronic heart disease, epilepsy
6) Mental health condition i.e. depression, schizophrenia or anxiety disorder
7) Physical impairment/mobility issues i.e. difficulty using arms or use a wheelchair or crutches
8) Disability/impairment/medical condition not listed above
9) Two or more disabilities/impairments/medical condition.

<table>
<thead>
<tr>
<th>Programme</th>
<th>Year</th>
<th>Disability Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g. BN Adult</td>
<td>e.g. 1st</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Number of students
6. How are student nurses with disabilities identified? (Please tick all that apply)
   a. UCAS form
   b. Self-declaration (other than UCAS form)
   c. Issues with academic work
   d. Issues with clinical/practice performance (in skills lab or on placement)
   e. Other (please specify) .................................................................

Please comment on the frequency of disclosure/identification of disabilities that occur through methods other than the declaration on UCAS forms. For example, what percentage of disabilities are disclosed or identified by means other than UCAS declaration:

7. Please outline the process for identifying the support needs for students with disabilities (if you have documentary evidence of the process, would you be willing to forward this information to the researcher via email or via post if you do not have an electronic copy?):
   Yes ☐
   No ☐
8. What is involved in the identification of the support needs of students with disabilities?
(Please select all that apply)
   a) Student meets with:
      i. Disability Advisor within University
      ii. Academic Disability Coordinator within Nursing Department/School
      iii. Academic Advisor / Link or Liaison Lecturer
      iv. Placement Coordinator
      v. Programme Lead
      vi. Head of Nursing Education
      vii. Other: please specify

   b) Educational psychologist report required if student has Specific Learning Difference

   c) Needs Assessment Record / Recommendations for learning and teaching produced

   d) Discussion between (please tick all that apply):
      i. Disability Advisor within University
      ii. Academic Disability Coordinator within Nursing Department/School
      iii. Academic Advisor / Link or Liaison Lecturer
      iv. Placement Coordinator
      v. Programme Lead
      vi. Head of Nursing Education
      vii. Occupational Health
      viii. Other: please specify

9. What reasonable adjustments are currently offered to students with disabilities?
(Please tick all that applies in each setting)

<table>
<thead>
<tr>
<th>Reasonable Adjustments</th>
<th>Academic Setting</th>
<th>Clinical/Practice Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sole or limited room occupancy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coloured Paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital recorders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IPADs / Tablets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scribe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reader</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistive software</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Altered shift patterns/timetabling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer access (desktop or laptop)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of calculator</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

342
Please specify any other reasonable adjustments that are currently offered in an academic setting:

Please specify any other reasonable adjustments that are currently offered in clinical/practice setting:

Please provide any additional relevant information about reasonable adjustments in different settings

10. a) How are support measures and reasonable adjustment requests communicated by the University Disability Advisor to staff in academic settings (e.g. Academic Disability Coordinator, lecturers, academic advisors, link lecturers, programme leads)? Please tick all that apply:
   i. Needs Assessment Record/recommendations for teaching and learning circulated to relevant academic staff by Disability Team
   ii. Central repository accessible by academic staff
   iii. Student’s file/record
   iv. Student’s responsibility to inform staff
   v. Other (please specify) .................................................................
b) How are support measures and reasonable adjustment requests communicated to staff in clinical/practice settings (e.g. Practice Education Facilitator, mentor, placement manager)?
   Please tick all that apply:
   i. Needs Assessment Record/recommendations for teaching and learning circulated to relevant staff by Disability Team
   ii. Adjustments communicated to Practice Education Facilitator
   iii. Adjustments communicated directly to placement manager/mentor
   iv. Detail within Ongoing Achievement Record
   v. Student’s responsibility to inform staff
   vi. Pre-placement meeting organised
   vii. Other (please specify) .................................................................

Please provide any additional relevant information about the process of communicating support measures and reasonable adjustments to staff.

11. Who decides what reasonable adjustments can be implemented:
   a) In academic settings?
      i. Disability Advisor within University Disability Department
      ii. Academic Disability Coordinator within Nursing Department/School
      iii. Academic Advisor/ Link or Liaison Lecturer
      iv. Programme Lead
      v. Head of Nursing Education
      vi. Occupational Health
      vii. Other: please specify .............................................................
Who decides what reasonable adjustments can be implemented:

b) In clinical/practice settings?

   i. Academic Disability Coordinator within Nursing Department/School
   ii. Academic Advisor/Link or Liaison Lecturer
   iii. Placement Coordinator
   iv. Placement Team
   v. Ward/Placement Manager
   vi. Practice Education Facilitator
   vii. Occupational Health
   viii. Other: please specify ..................................................

12. Do you have guidelines to support decisions about reasonable adjustments and their implementation?
   a) In academic settings? Yes ☐ No ☐
   b) In clinical/practice settings? Yes ☐ No ☐

   If yes to 11a) and/or 11b), would you be willing to forward the guidelines to the researcher via email or via post if you do not have an electronic copy?
   Yes ☐ No ☐

13. Have any requests for adjustments ever been regarded as not reasonable?

   a) In academic settings? Yes ☐ No ☐

   Please explain the response and provide examples if possible:
Have any requests for adjustments ever been regarded as not 'reasonable'?

b) In clinical/practice settings?  Yes ☐  No ☐

Please explain the response and provide examples if possible:

14. How are students with disabilities supported if an identified support measure is not regarded as a reasonable adjustment?

Please explain the response and provide examples if possible:
15. Do you currently evaluate the effectiveness of the reasonable adjustments that are offered to student nurses with disabilities?

Yes ☐ (Please go to question 16)  No ☐ (Please explain the response below)

16. Who is involved in the evaluation of reasonable adjustments

a) in academic settings?
   i. Disability Advisor within University Disability Department ☐
   ii. Academic Disability Coordinator within Nursing Department/ School ☐
   iii. Academic Advisor / Link or Liaison Lecturer ☐
   iv. Programme Lead ☐
   v. Head of Nursing Education ☐
   vi. Occupational Health ☐
   vii. Student ☐
   viii. Other: (please specify) ................................................................. ☐

b) in clinical/practice settings?
   i. Disability Advisor within University Disability Department ☐
   ii. Academic Disability Coordinator within Nursing Department/School ☐
   iii. Academic Advisor / Link or Liaison Lecturer ☐
   iv. Programme Lead ☐
   v. Placement Coordinator ☐
   vi. Occupational Health ☐
   vii. Student ☐
   viii. Mentor ☐
   ix. Ward/Placement Manager ☐
   x. Practice Education Facilitator ☐
   xi. Other: (please specify) ................................................................. ☐
c) Please explain how the evaluations of the effectiveness of the reasonable adjustments that are offered to student nurses with disabilities are used:

Thank you for your time.
Appendix 9: Phase two participant information sheet

An Exploration of Reasonable Adjustments to Support students with Disabilities in Pre-Registration Nursing Education in Scotland

Participant Information Sheet (Phase two Version 4 February 2014)

Introduction

You are being invited to take part in a research study that is being undertaken to fulfil the requirements of a Doctor of Philosophy (PhD) degree. The study is designed to explore what is meant by the term reasonable adjustments when supporting pre-registration nursing students who have a disability or additional needs. Before deciding whether or not you wish to take part in the research, please take the time to read the information below and if you have any questions or should you require further information, please feel free to contact me via the email address located at the end of this document.

What is the purpose of the study?

The purpose of the study is to try to establish what mechanisms are offered by Universities and clinical placement providers to support student nurses with disabilities both in theory and practice and to explore what the term ‘reasonable adjustment’ means to those staff responsible for offering these different support mechanisms to student nurses who have a disability.

Why have I been chosen?

You are being invited to participate in this research because you are currently involved in pre-registration nurse education in Scotland and have responsibility for supporting student nurses with disabilities.
What would I be asked to do if I took part?

If you agree to participate, you will be asked to provide written consent to confirm that you are willing to be involved. You will then be invited to participate in a focus group, which will include approximately ten people, to discuss your experience of supporting students with disabilities and this will incorporate a discussion about reasonable adjustments that are offered to students whether these are appropriate, who makes such decisions, how, when and why? This discussion will take approximately 90 minutes in total and will be recorded so that I can focus on what is being said rather than having to write things down in note form. Following the focus group, the content of our discussions will be transcribed verbatim after which the original recordings will be destroyed. Electronic and any paper copies of the anonymised data will be retained for five years within the University of Manchester after which these too will be destroyed in a secure manner.

Do I have to take part?

No. It is completely your decision whether you wish to take part in the research or not. If you consent to take part, you can still change your mind at any time, and you do not have to give a reason. However, you will be unable to withdraw your data once the focus group recording has been transcribed as the data will then have been anonymised and it will not be possible to identify you after this point to remove your data. Also if you choose not to take part in the research this will not have a detrimental effect on your future career in nurse education either now or in the future.

What are the benefits of taking part?

You will be helping to add to the body of knowledge about reasonable adjustments and how students with additional support needs can be effectively and sensitively managed to successfully complete their nursing programme.

What are the risks of taking part?

There should not be any risk to you through involvement in this study. However, if during the focus group you feel uncomfortable with any part of the discussion, you do not need to be
involved. If you are unable or unwilling to participate in the focus group but still wish to be involved in this research, an individual interview may be arranged.

What will happen to the information collected during the research study?

During the research, all paper based information will be stored securely in locked cabinets in a locked office; all electronic information will be stored on encrypted computers and secure servers. The information obtained during the study will be used to inform those individuals involved in nurse education of the types of reasonable adjustments currently available to support pre-registration nursing students with disabilities. The information will be distributed via conference presentations and academic nursing and education journal papers. As a participant, a summary of the information will be sent to you when the research is finished. Although every effort will be made to ensure that you cannot be identified from any of the anonymised data presented in reports, conference papers or journal articles, due to the small number of individuals working within a similar role supporting student nurses with disabilities, there is a risk that your participation may be assumed by readers of the information generated by this research.

How long will the research last?

Your involvement in the research will be approximately 90 minutes to participate in the focus group.

Where will the research be carried out?

The focus group will be carried out at the local university (Approved Education Institution) that provides pre-registration nurse education.

What if something goes wrong?

If there are any issues regarding this research that you would prefer not to discuss with members of the research team, please contact the Research Practice and Governance Co-ordinator by
either writing to 'The Research Practice and Governance Co-ordinator, Research Office, Christie Building, The University of Manchester, Oxford Road, Manchester M13 9PL', by emailing: research.complaints@manchester.ac.uk, or by telephoning 0161 275 7583 or 275 8093.

Who has reviewed the study?

This study has been reviewed by University of Manchester Research Ethics Committee

Contact for Further Information

If you would like to take part in the research, please complete and return a signed scanned copy of the enclosed contact details form and consent form. I will contact you to advise you of the date, time and venue for the focus group.

For further information about the research please contact:

AnneMarie Craig at annemarie.craig@postgrad.manchester.ac.uk

Thank you for reading this information and for considering taking part in this research.
Appendix 10: Consent Form

An Exploration of Reasonable Adjustments to Support Student Nurses with Disabilities within Pre-Registration Nursing Education

CONSENT FORM

Having read the participant information sheet, if you are willing to take part in this research please initial the boxes next to each statement and then print and sign your name at the bottom of the page.

1. I confirm that I have read and understand the attached information sheet version 4 dated 04/02/14 for the research above and any questions that I may have about the research have been answered to my satisfaction

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without my rights being affected

3. I agree to the focus group being audio-recorded and understand that the audio tapes and information taken from them will be stored securely for five years following completion of the PhD research before being destroyed. This is in keeping with University of Manchester requirements

4. I understand that the recordings will be transcribed verbatim

5. I understand that once transcribed, I will not be able to have any focus group data withdrawn from the study as I will no longer be identifiable

6. I agree that the anonymized quotes can be used in the research report, future publications and presentations.

7. I agree to take part in this study

Name of Participant  | Signature  | Date

Name of Researcher  | Signature  | Date

You will have a copy of this form to keep. A further copy will be stored in the researcher's site file within a locked drawer in a locked office.
Appendix 1: Topic guide

Introduction:
   a. welcome participants and introduce research topic
   b. advise re audio recording and transcription
   c. confirm consent

1. Participant details (role):
   a. confirm involvement with student nurses with disabilities
   b. establish examples of types of disabilities supported

2. Obtain participant’s views of reasonable adjustment
   a. ask participants to define reasonable adjustment
   b. discuss types of reasonable adjustments
   c. identify which reasonable adjustments are used to support which disability/need

3. How are reasonable adjustments identified? (processes)
   a. who is responsible?
   b. similarities/differences between academic and clinical settings
   c. how are differences managed?

4. How are reasonable adjustments implemented?
   a. in academic and clinical environments
   b. who is responsible?
   c. are there any guidelines to support implementation?

5. What influences the availability of reasonable adjustments?
   e.g. attitudes, availability, awareness, environment, knowledge, resources, time

6. How and when are reasonable adjustments monitored / evaluated?
   a. Who is responsible?
   b. How is the monitoring /evaluation reported?
   c. Who is it reported to?

7. Do reasonable adjustments have any bearing on student nurse performance or fitness to practise? (link to achievement of professional competencies and proficiencies and eligibility to register as a nurse)

8. Should reasonable adjustments be amended as students with disabilities progress throughout their nurse education? (Probe to obtain explanations for answers)

9. Ensure main topics covered during interview and thank participant
## Appendix 12: Documentary Analysis

<table>
<thead>
<tr>
<th>HEI</th>
<th>Credible Resource</th>
<th>Key Terms / Concepts included</th>
<th>Referenced Policies</th>
<th>Support examples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>X</td>
<td>X</td>
<td>√</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>X</td>
<td>√</td>
<td>X</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>X</td>
<td>√</td>
<td>X</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>X</td>
<td>X</td>
<td>√</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>X</td>
<td>X</td>
<td>√</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>X</td>
<td>X</td>
<td>√</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>X</td>
<td>X</td>
<td>√</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>X</td>
<td>X</td>
<td>√</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>X</td>
<td>X</td>
<td>√</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>X</td>
<td>X</td>
<td>√</td>
</tr>
</tbody>
</table>
Appendix 13: Theme Development