SENIOR NURSING LECTURERS' UNDERSTANDING OF EDUCATION FOR SUSTAINABLE DEVELOPMENT: A PHENOMENOGRAPHIC STUDY

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Abstract

Explicit reference to the concept of Education for Sustainable Development (ESD) within nurse education literature is scarce, impacting on the understanding of senior lecturers; the focus of this study. There is also the absence of badly-needed transformative educational practices to prepare and support students for current and future decision-making and practice. The concept of ESD is based on the notion that human behaviour, both individually and collectively, directly contributes to climate change, which has an impact on health and well-being.

The aim of the study was to investigate the different described ways that ESD is understood in relation to nurse education. The research question was, *"what do senior lecturers understand by the term 'Education for Sustainable Development' in relation to nurse education?".*

A phenomenographic, qualitative approach was adopted. Data collection was undertaken from a sample of ten participants, utilising semi-structured interviews, transcribed verbatim. Analysis was in accordance with the phenomenographical approach (i.e., familiarisation, compilation, condensation, classification/grouping, preliminary comparisons, naming of categories, contrastive comparison of each category) and resulted in the outcome space with referential and structural aspects. Results demonstrated *relevance* as the referential aspect and *responsibility*, *globalisation* and *professional leadership* as the structural aspects. The findings underpinned a proposed local framework for nurse education practice regarding pedagogical approaches and educator ethical reflection to facilitate effective interdisciplinary transformative educational practices and local change management strategies.

Limitations are acknowledged and these include study size, local institutional particulars and manual analysis of the data which may have affected category formation. Face-to-face interviews, personal and professional experiences may have influenced participant responses.

To effect purposeful nurse education, continued dissemination and further research should be considered by professional organisations and affected parties regarding explicit reference to ESD.

Dedication

I dedicate my work to my family and friends. A special spiritual appreciation and sense of gratitude to my dad Phillip Alphonso White's (1934-2008) memory, my mummy Cyrillia White and my husband Roger Murray West for their constant source of encouragement and inspiration. I also dedicate my work to my peers, colleagues and associates who have supported me throughout this process in so many ways at work and at play. In this regard a special mention must be made of Dr Louise Terry who, without effort or deliberate intention, has given and remains a constant source of inspiration and guidance. Finally, to Dr Charles Cayley, whose assessment of me as a registered nurse since 1979 has empowered me to persevere.

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Table of Contents   **Page**

List of Figures   **Page**

CHAPTER 1: INTRODUCTION

1.1   Introduction and Research Question

The aim of this chapter is to highlight the significant issues addressed in this thesis, identify the research question and introduce the thesis structure.

Education for sustainable development (ESD) is an issue that has been discussed extensively (Goodman and Richardson, 2010; Thomas *et al.*, 2012). ESD discussions and commentaries have argued for the explicit use of terms such as 'ESD' that are related to sustainability as well as to its development (Richardson *et al.*, 2014). In addition, it is argued and asserted that despite a wealth of literature, evidence and reported official government backing, few universities have specifically addressed the issue of ESD or it as a theme within their processes and policies to underpin curricula (Goodman, 2011; Goodman and East, 2014). Stibbe (2009) asserts the need for graduate nurses in the UK to be sustainability literate. Others, such as Costello *et al.* (2009), argue and assert quite strongly that the areas of sustainable development and sustainability are related to climate change and, as a result, relate closely to health and, therefore, to nurse education (Goodman and Richardson, 2010). This conviction is associated with the existing evidence of the links between climate change and health (*ibid.*).

Climate change risks to the health and wellbeing of current and future generations are asserted and re-iterated as being a consequence of how we as human beings use and dispose of fuel, natural and man-made world resources (IPCC, 2007; 2014). In addition, the Intergovernmental Panel on Climate Change (IPCC, 2014) has pointed to active, reactive and proactive measures that may facilitate the health and wellbeing of future generations. Global technological advances have benefited health and the quality of life, but equally

these and other human behaviours and advances have affected climate change among other things (Goodman and Richardson, 2010). The issue of climate change, its effects on health and how we relate to it in terms of adaptation will be addressed within this thesis. In so doing, it is acknowledged that the World Health Organisation (WHO) considers health as multi-dimensional and not just disease driven (WHO, 2006).

Thomas *et al*. (2012) acknowledge the difference of opinions in relation to the terminology used, such as 'sustainability education'; 'education for sustainability' (ES) and 'education for sustainable development' (ESD). The philosophical premise on which these discussions lie is respected and recognised. However, in relation to this thesis, the term 'ESD' will be used because of a belief in the transformative nature of education which the term engenders (Hegarty, 2008).

Thomas *et al*. (2012) also recognise the relevance of the concept of ESD within higher education and question the reason for its lack of inclusion within university curricula. They addressed this issue within university structures in Australia, but this matter can be considered as equally relevant in the UK (Goodman and East, 2014). Thomas *et al*. (2012) and Goodman and East (2014) recognise that in order to relate to the concept of ESD within the curriculum, organisations will need to embrace the concept and re-visit the ideals of education. In addition, Bursjöö (2011) (later supported by Thomas *et al*., 2012) notes numerous reasons for the lack of implementation. These include issues related to the lack of understanding and training of academics, the scarcity of overall consensus in relation to the concept of sustainability and ESD, along with disciplinary cultures and assumptions about education. In this regard, this research investigated the understanding of senior lecturers of nurse education working at a single local UK university (London South Bank

University [LSBU]) in relation to ESD and its application within adult pre- and post-registration programmes. This thesis therefore addresses a single question:

What do senior lecturers understand by the term 'education for sustainable development' in nurse education?

This question incorporates a desire to know the following:

- Is the lack and scarcity of explicit reference to ESD related to the lack of understanding?
- Is the scarcity of nurse education literature in relation to the concept of ESD a reflection of dissociation between the concept of ESD and the role of the nurse and nurse education?

While seeking to add to the body of nurse education knowledge, this thesis also (at the very least) seeks to raise the issue of the ESD concept within the consciousness of curriculum planning and nurse education delivery locally. At best, it aims to suggest a way forward (framework) for explicit reference to ESD in nurse education at a local level. These intentions are related to the role of the nurse, the question of what nursing is and the evidence in relation to nurse education. The role of the nurse is challenged by multiple factors that are acknowledged by the Royal College of Nursing (RCN) (2003). This challenge starts with the difficulty of trying to arrive at a concrete definition of what nursing is in the first place (*ibid.*). The RCN (2013) further suggests that the independent, interdependent and dependent professional nature and standing of the nurse add to the difficulty of defining 'nursing'.

To answer the research question, a qualitative approach was used. This decision was influenced by the nature of the research question, which aimed to

investigate what people think. The investigative nature of the research question warranted that the methods employed (such as the semi-structured interviews to collect data) were appropriate to address the issue of understanding in relation to the concept of ESD. In this regard, the qualitative process used required that a systematic and transparent approach be adopted by addressing the following:

- A *literature review* to locate research that relates to the area of enquiry and questioning in terms of similarity and perspective.

- An explanation of the adopted *methodology* to justify the approach and methods used.

- An explanation of the *ethical* underpinnings of the decisions made in relation to the *data collection* process.

- The detailing of the *findings* and the *analytical process* that led to the findings, and a *discussion* of these findings.

- The provision of a *conclusion* based on the process and findings.

- Finally, *recommendations* for education practice and future research that have arisen as a consequence of this thesis.

1.2   Structure of the Thesis

Chapter 2 (Literature Review): this chapter will provide a review of the literature that relates to the research question, obtained using recognised search engines. This review will demonstrate that the body of knowledge in relation to the research question is limited. This scarcity, in addition to legitimising this thesis, will also lead to an appraisal of the selected literature to

inform and guide this study. Chapter 2 will therefore be divided into sections that address and summarise:

- what is ESD?;
- the nurse education curriculum and its relationship to ESD;
- the role of the nurse in relation to what nursing is, education and ESD; and
- the understanding of ESD.

Chapter 3 (Methodology): phenomenography is presented as the chosen methodology, assessed as being the most appropriate. The process and its justification, in addition to the arising ontological and epistemological issues, will be addressed within the following sections:

- methodology;
- a qualitative approach;
- phenomenography, and
- reflection and reflexivity.

Chapter 4 (Ethics and Data Collection): the ethical considerations of the research processes that led and underpinned the collection of data which inform this thesis will be explained. In addition, issues such as credibility, reflexivity and consent, amongst other ethical issues that relate to the data collection, will be addressed within the following sections:

- ethics and credibility;
- ethics, consent and confidentiality;
- ethics and the security of digital audio recordings;
- ethics and location, and

- data collection.

Chapter 5 (Findings and Data Analysis): the processes that led to the findings of this thesis will be addressed using verbatim descriptions, discussion and consideration of issues relating to the reflections and reflexivity of the process. Analysis of the data will also be described and discussed, with associated reflections and reflexivity. The discussion will be developed and facilitated by referring back to the literature review. An appendix will be included to provide some examples to demonstrate aspects concerned with the process of data analysis. This chapter will be divided into sections that address the following:

- the findings;
- data analysis:
    - familiarisation;
    - compilation;
    - condensation;
    - naming of categories;
    - contrastive comparison of each category and outcome space;
- summary of the data analysis process;
- cyclic representation of the outcome space; and
- discussion of the findings.

Chapter 6 (Conclusion): the thesis will conclude by re-visiting the research question, its underpinnings, its aim and the process used to arrive at the answer. In addition, it will re-iterate the justifications provided for the decisions made while conducting the study. The limitations of the process will also be acknowledged. Finally, a summary of the contribution made to the body of nurse education's knowledge and practice, local implications, the scope for

further research and recommendations for practice in nurse education will be addressed in sections, as follows:

- conclusion;
- summary of the findings of this thesis and their contribution to knowledge and practice;
- limitations;
- scope for further research; and
- recommendations for practice in nurse education.

CHAPTER 2: LITERATURE REVIEW

2.1   Introduction to the Literature Review

To explore the background to the research question, a search of the literature to be reviewed was conducted by accessing 'Google' and 'Google Scholar', using the following groups: 'education for sustainable development (ESD)', 'nurse education', 'lecturer understanding of ESD' and 'UK nursing curriculum delivery'. In addition, the Cumulative Index to Nursing and Allied Health Literature (CINAHL, 2009) site was also accessed, because this resource specifically relates to nursing and other healthcare associated professional issues within its database. The results of the initial search were disappointing and are summarised in Table 2.1.

Table 2.1: Results of the Initial Literature Search

Search Engine	Words used: 'education for sustainable development' and 'nurse education'	Words used: 'lecturer understanding of ESD' and 'UK nursing curriculum delivery'	Words used: 'sustainability curriculum' and 'nurse education'	Words used: 'lecturer understanding of sustainability in higher education'
Google	No literature	No literature	1 article	No literature
Google Scholar	3 articles	No literature	1 article	2 articles
CINAHL	No literature	No literature	1 article	No literature

The disappointment that this initial search yielded so few results added to the conviction that the area of this research is both original and timely, and the outcome would potentially add to the body of nurse education knowledge and practice. It is believed and asserted that what we do and how we do it as individuals and as a professional group are greatly influenced by the individual

and collective understanding of an issue (Barrie, 2004; Bursjöö, 2011; Comrie, 2013). In the case of this thesis, the understanding of ESD by senior lecturers who are, by and large, professional nurses is therefore considered to be influential in its application within the context of nurse education knowledge and practice (Barrie, 2004; Bursjöö, 2011; Comrie, 2013). It is also contested that the lack of nurse-specific literature that makes explicit reference to ESD is important for several reasons. It may be that the concept of ESD is not considered particularly pertinent, or it is not understood as significant in terms of its connection, or its relevance has not been considered (Thomas *et al.*, 2012). It is argued that the principles and concepts of ESD are related to nursing education, knowledge and practice (Goodman and Richardson, 2010). In addition, it is also asserted that education needs to be appropriate in terms of time, place and people and, as such, needs to evolve to maintain and sustain its relevance (Richardson *et al.*, 2014). In this regard, it could also be argued that nurse education needs to be transformative (Sterling, 2001) rather than trans-missive, and reliant on what could be considered to be an apparent prescriptive dictate in the UK of the NMC. The NMC is among several influential drivers of nurse education in the UK, to whom the charge of the lack of explicit reference to ESD with its relevance to nurse education can be made. It is acknowledged that concepts akin to that of ESD may be implied within UK nursing standards and education guidelines issued by the NMC (2010). However, it could also be argued that explicit reference to ESD may foster transformative education that relates, evolves and develops critical thinking, innovative teaching and learning, and fosters the acknowledgement of its significant relationship to nurse education and practice (Sterling, 2001; Goodman and Richardson, 2010; Richardson *et al.*, 2014).

Therefore, following on from the belief that understanding can influence what we do and how we do it, it is asserted that this thesis contributes to the current

body of nurse education knowledge by establishing the understanding of nurse educators in relation to the concept of ESD and its relevance to nurse education, so that a clear reference may be facilitated within local curriculum pedagogical approaches. Moreover, in conducting this study and using a qualitative methodology that employs approaches to data collection such as semi-structured interviews, the explicit reference to the concept of ESD may also facilitate its entry into the minds of nurse educators for further discussion and practice (Cotton *et al.*, 2007).

The disappointing results of the initial search for literature led to the access and review of secondary references found within the primary search. The original search and subsequent literature also led to e-journal reviews from which information that related to this thesis was extracted, covering a wide range of associated issues.

It was anticipated that the areas under review would illuminate the context of the research question. In addition, it was expected that this approach to the literature from a broad base would allow the specifics in relation to nurse education to be acknowledged. In this regard, this review of the literature will be seen to include sources that could be seen as general, through to specific nurse education literature which relate to the research question. To achieve this, the issue of ESD and associated pedagogies was primarily addressed.

2.2   What is ESD?

The literature in relation to ESD demonstrates the goal and process; sustainability as the goal and sustainable development as the process. The Brundtland Commission of 1987, which is noted by the United Nations (UN) (1987), assert that sustainable development is transformative with the present

and future survival of the planet and its inhabitants in mind. The 2002 Johannesburg Earth Summit Report (Reid and Petocz, 2006) adds that sustainable development is a means to empowerment and long-lasting self-determination in relation to economic, social and environmental development, which needs a critical inclusion and approach in all areas of education (UN, 2002; von Schirnding, 2005). In response to these assertions, the Higher Education Academy (HEA) and the Quality Assurance Agency (QAA) define 'ESD' thus:

> "Education for sustainable development is the process of equipping students with the knowledge and understanding, skills and attributes needed to work and live in a way that safeguards environmental, social and economic wellbeing, both in the present and for future generations" (HEA and QAA, 2014:7).

Scott notes the significance of sustainable development as a process through which learning, and learning how to learn and live, may facilitate "our capacity to live more sustainably" (Scott, 2002:2). He also acknowledges that a world view and perspective will influence how the issue of sustainable development will be interpreted and acted on as these relate to:

- climate change;
- species extinction;
- human over-population, malnutrition and premature death;
- lessening food stock and supply;
- air and water pollution;
- deforestation; and
- lessening natural resources and supply.

There are varying views and paradigms of the concept of ESD that see it as a philosophy (Sterling, 2001). Some commentators view the issues of education from a positivist instructive stance, while others view it from a constructionist

perspective (*ibid.*). These differences in beliefs and approaches are arguably important because they potentially affect the interpretation and subsequent outcomes in relation to ESD (Barrie, 2004; Bursjöö, 2011; Comrie, 2013). Sterling (2001) suggests that the differences between positivist and constructivist approaches determine control, power and self-determination, which are summarised in Table 2.2.

Table 2.2: Differences Between Positivist and Constructivist Approaches to ESD

Positivist	Constructivist
• Top-down • Content focused • Instrumental values • Focused on perceived and conceived communities' deficiencies • Teaching • Control	• Bottom-up • Allows a process to develop to facilitate engagement • Values determined by and from within communities and by those affected by any determined change • User involvement • Learning • Empowerment

These differences in beliefs and approaches suggest that the constructivist approach adopts a stance that appears to value the individual as part of a larger community (Sterling, 2001).

There are differences in the way the term 'ESD' is interpreted as a concept and, as such, is seen to affect the pedagogical approach (Thomas *et al.*, 2012). In this regard, Thomas *et al.* acknowledge that the terminology used in relation to the concept can potentially evoke varying foci of meaning. The term 'about' for example, can be argued as implying a transmission of information from educator to student who has been asserted as leaving no room for developing

thoughts on action (Cotton *et al.*, 2007). On the other hand, it has been suggested that education 'for' implies the goal of life-long, continuing education and critical thinking, which is fashioned to be transformative and thereby allows for change and innovation (Cotton *et al.*, 2007; Hegarty, 2008). It could be argued that whatever the terminology - education for sustainability (EfS), education for sustainable development (ESD) or sustainability education (SE) - recognition of the understanding of the concept is paramount to facilitate a pedagogical approach, implementation and outcomes, personally and professionally (Barrie, 2004; Kemmis and Smith, 2008; Bursjöö, 2011; Comrie, 2013).

McKeown and Hopkins (2003) argue for required clarity, considering that confusion about what is 'environmental education' and what is 'ESD' has perpetuated the disagreements, conflicts and varying paradigms. In addition, they suggest that, rather than engaging in arguments, which do not add value or lead to progress in terms of individuals or community, collaborative practices (which enable rather than disable) ought to be the preferred route in terms of education. McKeown and Hopkins (2007) also acknowledge that there are many similarities between environmental education and ESD and that, over time, the lines have become blurred. Wals and Jickling (2002), however, contend that sustainability has numerous facets, all of which need to be considered in context in order to be relevant and meaningful. To address relevance, they also assert that the role of higher education is to facilitate new ways of knowing through critical thinking and innovation to move forward rather than be prescribed from what is already known.

Connelly (2007) considers that issues of sustainability can be seen from an urban planning perspective, but notes that there are contradictions and conflicts regarding sustainable development in the areas of economy, fairness and the

environment. He also acknowledges that, in a perfect world, a balance of all three is desirable. However, in reality, this is almost impossible because of professional and financial limitations. Sustainable development has been interpreted differently by ecologists, the World Bank and others and, as such, Connelly additionally argues that this is a weakness in the concept.

In relation to economics, Foncesta de Andrade (2011) adds that the move to more sustainable ways is affected by socio-economic issues and power. Therefore, for any interpretation and action in relation to ESD to be successful, critical thinking and change management will need to be embraced to facilitate cultural shifts.

These differences potentially create challenges when trying to establish ESD's place in education as a whole and, more specifically, in nurse education (Lundegård and Wickman, 2007; Goodman and Richardson, 2010). Moreover, Lundegård and Wickman (2007) conclude that the language used in relation to sustainable development, in addition to conflicts of interest, demonstrate the varying values placed on the issue of ESD. It may be that there will never be a consensus in relation to the meaning, teaching, learning and educational approach in relation to ESD which is affected by world views, beliefs, attitudes and values. Accordingly, a local consensus that determines a local framework is imperative (Bursjöö, 2011).

Scott (2002) realises the complexities that the concept presents and asserts that the Venn diagram used to demonstrate the relationship between economy, society and the environment reveals the vulnerability of the concept (see Figure 2.1).

Figure 2.1: Relationship of Sustainable Development

Scott (2002) maintains that no component can exist independently of the others and therein lies the conflict. In addition, he cites Blűdhorn (2002) who proposes that unsustainability does not have a magical formula such as changing living behaviours and education, because the damage is done and people have become used to their way of living. Scott goes on to suggest that education via the curriculum may allow the consideration of choices and facilitate critical thinking in relation to ESD rather than dictating what and how, in terms of practice. He also acknowledges and cites the assertions of Foster (2001), who states that learning to understand the natural world is an interactive process that cannot be given or taken like a prescription or formula. It is therefore asserted that much of what needs to be done needs to be relevant in terms of time, place and person(s) (Scott, 2002).

Bourn (2008a) suggests that, in relation to ESD, the environmental agenda has assumed centre stage despite the need for developmental and worldwide plans.

In addition, he questions the purpose of ESD in the light of assertions made by Sterling (1992) for example. Sterling views education for sustainability as developmental exercises which:

- facilitate people's understanding of the connections and interdependence between all life on earth and the consequences of choices and behaviours both now and in the future, at home and abroad;
- raise awareness of the individual and collective impact of economic, political, cultural, social, technological and environmental elements, all of which affect sustainable development;
- affect awareness, ability, approaches and values that allow facilitation of ESD at home and abroad. Moreover, this process may affect the ability to connect environmental and economic choices that ensure collaborative behaviours, life-long learning and education practices across disciplines.

In critique, Bourn (2008a) goes on to state that disagreement about the above assertions appears to lie in the approach that is believed to be politically influenced. Therefore, the addition of the term 'global citizenship' was suggested by non-governmental agencies and educational institutions as adding a more holistic viewpoint in relation to ESD (Bourn, 2008b). To achieve holism, Bourn (*ibid.*) and Belgeonne *et al.* (2014) assert that this approach will require critical thinking and life-long learning. Belgeonne *et al.* demonstrate this viewpoint by using case study exemplars from practice that are believed likely to enable educators to develop this approach in the context of teaching and learning. Belgeonne *et al.* (*ibid.*, in reference to these exemplars, view ESD and global citizenship (ESDGC) as requiring the following:

- a combined, appropriate and comprehensive holistic approach to teaching and learning that encourages questioning and addresses local and global issues that add relevance;
- to look at relevant issues from different perspectives, questioning and challenging perspectives of the status quo that may need to change;
- facilitation and fostering of positive change by using teaching stances that adopt creativity and change. In addition, continual education and development of the educators in relation to ESDGC, institutional and policy changes are also viewed as necessary requisites for education and practice that are applicable, relevant to society and allow change.

In addition, the above viewpoints of Belgeonne *et al.* (2014) relate to the beliefs of Berg (2012) and Orr (1996) which pertain to critical thinking, person-centred freedom, responsibility, empowerment, relevance and innovation being at the heart of education. The perspectives of Belgeonne *et al.* also relate to the thinking of the United Nations Children's Fund (UNICEF, 2000) about education. In addition, it is claimed that students expect to be prepared with the skills required for sustainability development (Cade, 2008). Accordance with this also originates from the beliefs of Aristotle's education theory, despite the lack of factual knowledge in relation to Aristotle (Hummel, 1999). Hummel comments that Aristotle believed that education is life-long, with its purpose being to prevent wars through happiness, freedom, wisdom and empowerment.

2.2.1 Pedagogical Approaches to ESD

HEA/QAA (2014) suggest that ESD can be viewed from perspectives that address what the individual needs to enable their learning, survival and empowerment, and the management of change that affects communities and policies, and may itself be affected by politics and socio-economic structures.

In addition to the assertions of Belgeonne *et al.* (2014), current pedagogical approaches to ESD suggested by HEA/QAA (2014) could be seen as facilitating the student to achieve the following core outcomes in terms of their specific discipline:

- develop pro-active measures, critical thinking (ask, what if?), critical reasoning and working practices that enable societies to adapt to changing circumstances, thereby enabling ***sustainable futures;***
- consider matters related to ***social justice***, ***ethics*** and ***wellbeing*** from a holistic perspective and consider how they relate to economic and ecological issues;
- consider how ***environmental stewardship*** relates to their practice, future professional role/remit and personal life; and
- consider and relate to the model of ***global citizenship.***

In terms of graduate outcomes, it could be argued that the above core outcomes seek to prepare and deliver to society a graduate who, in addition to being knowledgeable, is prepared and fit for purpose in any setting, which includes the workplace (European Commission High Level Group on the Modernisation of Higher Education, 2013; HEA/QAA, 2014). It is suggested that these outcomes may be achieved by engaging with multi-disciplinary agencies to enable applicable trans-disciplinary holistic practice, innovation, environmental management, self-refection and leadership on a personal and professional level (HEA/QAA, 2014). The pedagogical approaches that may be used will need to take into account relevant and local issues and opportunities to deliver, support and assess these outcomes (*ibid.*). The use of case studies, simulation, practice placements, experiential project assignments, problem-based learning approaches that can be built upon and developed, in addition to

relating to real life, have all been advocated (HEA/QAA, 2014; Richardson *et al*, 2014).

The above approaches are not without their challenges (Jones, 2006; Le Heron *et al*., 2006; Atkinson *et al*., 2007) relating to individual teaching and learning needs, local objectives and strategies, communication, professional conflict, role and managing change (Ginsburg and Tregunno, 2005).

A collaborative project was undertaken by several European partners to establish a model to guide the inclusion of ESD as a competency into the teacher training curriculum (from pre-school to adult and higher education). This project (the Comenius-2-Project, the Curriculum, Sustainable Development, Competencies, Teacher Training [CSCT]) sought to establish a model to facilitate the collaborative development of practice, skills and knowledge of educators in relation to ESD. The resultant model to arise from this project was a culmination of the outcomes of a number of studies, at a number of institutions, being both qualitative and quantitative research over a period of three years (Sleurs, 2008). An appreciation of local and global issues, the implications for the educator as an individual and professional, the need for collaboration and acknowledgement of limitations and interconnectedness in relation to the real world for planning, implementation and developing practice through reflection are implied within the model. The understanding of educators in relation to the concept of ESD was not an explicit focus in the development of the model. However, it could be suggested that the contributions to the model were influenced by the educators' understanding of ESD, along with their local implications. In this regard, the study presented in this thesis, which looks specifically at the understanding of senior lecturers, is believed to be appropriate, adds to the body of knowledge, addresses a local framework and is related to the implementation of ESD within nurse education. This relates to the

assertions of Bursjöö (2011), whereby the lack of a common framework in relation to the understanding of ESD provides the justification for this thesis.

2.2.2 Summary of What is ESD?

It could be said that the concept of ESD can be considered as a belief and pedagogical approach which facilitates and leads to behavioural practices and lifestyles that recognise the need to maintain and sustain resources that will ensure survival of the planet and its inhabitants both now and in the future. It is believed to be a set of beliefs that engenders global citizenship through a sense of belonging and behaviours associated with responsibility and empowerment. There are varying worldviews and conflicting paradigms in relation to meanings and ways to implement the concept of ESD, because of differences in understanding which may be determined by the terminology used and hence affect the pedagogical approach. Whatever the definition, description or worldview of the concept, it is believed that its implementation and adopted pedagogical approach will be affected by economics, environments, politics, culture and, ultimately, understanding. The lack of evidence in relation to the understanding of educators has been recognised as a factor that may explain the sluggish implementation of the concept in institutions of higher education and forms the basis of this thesis. In as much as an overt change in the curriculum is not sought, this thesis will take a step back and establish the understanding of senior lecturers (at LSBU) to address the lack of documented evidence to support future curriculum development, current and future practice (LSBU, 2014), as well as facilitating the introduction of curriculum explicit reference to ESD into the practice and consciousness of nursing senior lecturers. To justify this, a review of the nurse education curriculum and its relationship to ESD is warranted.

2.3   The Nurse Education Curriculum and its Relationship to ESD

A lack of local consensus and framework in relation to ESD to move forward, local curriculum change, re-emerging standards for pre-registration nursing education (NMC, 2010), a review of the professional nurse behaviour code (NMC, 2015) and suggested ESD implementation guidance for UK higher education providers by HEA/QAA (2014), are all seen as providing a timely opportunity to determine the understanding of ESD in nurse education senior lecturers (Bursjöö, 2011; Comrie, 2013).

The guiding principles of pre-registration nurse education and training in the UK include practice-based learning and its proficiency (NMC, 2010). This is accessed, viewed and assessed against the demonstrated ability to use, share and create knowledge and skills made possible by continued practice and research (RCN, 2003; NMC, 2010). This is aimed at enabling nursing to continue to respond in practice and education to the ever changing needs of societies (NMC, 2010; RCN, 2013; NMC, 2015). The WHO (1997) acknowledges the changing global environment within which societies' changing health needs emerge and operate. This has implications for nursing practice and ultimately nurse education (Richardson *et al.*, 2014). In addition, the UK Department of Health (DoH, 2010a) also recognises the national effects of the environment on health. The effects of globalisation on climate change, in terms of extreme weather patterns and the subsequent risk to vulnerable groups, for example during colder winters and warmer summers, are also recognised by the DoH (Kirk, 2002; McMichael *et al.*, 2006; Vardoulakis *et al.*, 2014). It has been suggested that compared with the rest of Europe, the UK has the highest figures for winter deaths, with older adults being at particular risk (Public Health England, 2014). Older adults are also potentially at greater risk in the event of flooding (McMichael and Beaglehole, 2000). In addition, the economic, technological and cultural globalisation and the subsequent effect on

the environment within which nurses must function (knowledgably, appropriately and effectively) is acknowledged (Goodman and Richardson, 2010). This requirement of nursing and nurse education is also recognised by the International Council of Nurses (ICN, 2000) who suggest that globalisation has fostered economic growth, sharing of technology, knowledge and practice.

Thomas *et al.* (2012) recognise the close relationship between professional associations (PAs) and universities and training institutions, but point to the lack of explicit effort and direction from PAs to advise and direct their members to practices within the principles of ESD. Goodman and Richardson (2010) concur with this observation.

In the UK, for example, the 'triple bottom line' in the construction industry is explicit in relation to sustainable practices, in sympathy with the current and future environment and resources (Constructing Excellence, 2004). The NMC sets and produces guidelines for nurse education curriculum which UK universities adopt in different ways. Each curriculum is ultimately validated by the NMC personnel and educators. This process of validation enables curricula likeness and standardisation. The NMC is therefore instrumental in determining the parameters of the UK nurse education structure, but with no single national nurse education curriculum it could be argued that it is left to individual institutions of higher education to apply and interpret the NMC's standards and guidelines (Goodman and Richardson, 2010). To this end, Goodman and East (2014) advocate that a 'sustainability lens' should be added to the nursing curriculum. It is suggested that this addition will facilitate awareness of related sustainability issues that affect outcomes of practice, the quality of care and fitness for purpose (*ibid.*), a view supported by Stibbe (2009) and the National Health Service Sustainable Development Unit (NHSSDU, 2009) which also advocates that education is essential in this endeavour. This standpoint is also

supported by Costello *et al.* (2009), Goodman and Richardson (2010), the British Medical Journal (2011) and Barna *et al.* (2012).

It is strongly suggested that increased consumption and subsequent carbon emissions (CO_2) result from technological advancement, human migration and current economic wealth and lifestyle factors (IPCC, 2007; 2014). In addition, it is widely believed that unless this usage is addressed, controlled and reduced, emissions will rise and pose a threat to the planet, health and ultimately, human survival (Costello *et al.*, 2009; Solomon *et al.*, 2009; Richardson *et al.*, 2014). This belief is recognised by the NHSSDU's (2009) acknowledgement that healthcare in the UK contributes to emissions and is considered to be a major contributor to CO_2 emissions.

The effects of climate change and, in particular, the effects on human physical and mental health, loss of livelihoods related to extreme weather patterns, loss of property and human migration have been further evidenced by the IPCC (2014). Their report accepts that the actual effects of climate change in relation to worldwide human ill-health are relatively small, but they also note that the accumulated effects of climate change are significant. This report points to climate change being a significant contributor to the 'survival of the fittest' factor, where the poorest and least developed communities are vulnerable. Adaptations to current and highly volatile human health issues are therefore considered appropriate. Richardson *et al.* (2014) contend that the impact of climate change and its relevance to current and future nurse education preparation and practice cannot be ignored. Longley *et al.* (2007) argue that related issues, such as population growth, migration and long-term conditions for example, need to be addressed by nurse education, policy and practice. Richardson *et al.* (2014) recognise that the issue of global warming and the explicit connection with nursing practice and education may at times be difficult

to consider. However, it could be said that adoption of the view that the environment is related to health and affects the whole person and that equally the whole person affects their environment, as suggested by nurse theorists, may facilitate transparency and the relevance for nursing and nurse education (Wells, 2005).

The Climate Change Act (2008) states legal parameters in relation to a reduction of CO_2 emissions by 80% of the 1990 levels by 2050. The UK's NHS, as the main nurse employer (Goodman and Richardson, 2010) and a large contributor to CO_2 emissions (NHSSDU, 2009), is a determining factor for nurse education engagement through collaborative efforts directly and indirectly. Therefore, the behaviour of healthcare professionals is seen as critical, as is the education that ought to accompany their expected professional and personal practices.

Balser (2007) argues that the issue of sustainability can be seen too often as an individual act which does not allow influential issues such as economics, values, attitudes and politics to be addressed and challenged. These issues are among others contained in nurse education guidelines and curricula (NMC, 2010). However, arguably, according to the above assertions, there appears to be a need to address the bigger societal picture in addition to that of the individual (Goodman and Richardson, 2010; Richardson *et al.*, 2014). The ability to do this may lie in the preparation of the nurse in respect of leadership roles, in addition to an examination of the meaning of moral responsibility.

According to Lindh *et al.* (2007), the area of moral responsibility has been poorly researched despite the ethical dimensions that affect nurse education. Addressing the issue of personal and professional moral responsibility by ethical reflection according to the literature may be achieved by continuing

professional development (Garet *et al.*, 2001), rather than concentration on individualistic training tasks required, for example, by UK NHS trusts (Goodman and Richardson, 2010).

In addition, it could be suggested that nurse education is no exception to the assertion that the survival of any organisation is dependent on effective leadership and their perceived personal and professional behaviour (Mastrangelo *et al.*, 2004). Ethical reflection is argued as being beneficial and an essential element concerned with critical reasoning (Allegretti and Frederick, 1995, Tomcho and Foels, 2012). However, how ethical reflection is practised and facilitated is contentious (Woods, 2005) and requires further research (Mackintosh, 1998; Mann *et al.*, 2009). The HEA/QAA (2014) has suggested measures that may be used by educators to address ESD and the challenges that may be presented in its delivery.

Galuska (2012) asserts the need for the nurse to be prepared for the role of leadership and for education to facilitate the required evidence-based practice, knowledge and the utilisation of expertise.

Further relevance of ESD to nurse education is seen in the Audit Commission's inclusion of sustainability and CO_2 emission reductions as performance standard indicators (Audit Commission, 2009/10; DoH, 2010a). These issues, in terms of explicit reference, remain elusive within the 152 page NMC (2010) document directions that drive the current nurse education curricula. However, a review of current UK nurse education standards on which the current curriculum is based suggests an implied association (NMC, 2010; Richardson *et al.*, 2014).

To this end, all pre-registration nursing programme providers are expected to provide the necessary programmes of study and assessment to meet the NMC's criteria for approval (NMC, 2010). The background and context of these standards are stated as aiming to engage practice and education that protects the health and wellbeing of the public. This is a stipulation within the Statutory Instrument of the Nursing and Midwifery Order 2001 (SI 2002 No. 253) (NMC, 2009). To achieve this, the NMC also maintains a register of nurses and midwives, establishes and monitors standards of education, training, conduct, practice, skills and knowledge and seeks to ensure that the professional code is observed and that practitioners are safe in the delivery of up-to-date nursing practice. In addition, the NMC provides obligatory guidance and counselling to those wishing to develop, supervise and deliver educational programmes in the UK. However, the NMC guidance (NMC, 2010) and the recently revised Code of Professional Conduct (NMC, 2015) make no explicit reference to ESD. As a consequence, ESD may be seen to be implied, left to interpretation and subsequently not expressly addressed by the current nurse education curriculum (Goodman and Richardson, 2010; Richardson *et al.*, 2014).

In the UK, the NMC's published standards, guidelines and the Code could be said to allow nurses the facility to give and maintain a high quality of universally adaptable care within environments that continue to change (NMC, 2009; 2010; 2015). These standards make the assumption that it is understood that they aim to demonstrate the needs of future service requirements, in addition to recognising future health/wellbeing needs, confront issues related to the appropriate management of long-term conditions, the needs of the older adult and ageing within diverse settings outside of hospitals. Leiba (2004) points out that education and training aim to prepare the professional for the real world of practice and therefore that preparation needs to be as realistic as possible. Leiba (2013) also argues strongly that the needs and voice of minorities (such

as black and minority ethic [BME] users) must be addressed with cultural competence, and that a failure to do so weakens healthcare provision (Soulé, 2014). The NMC (2010) claims that the standards for education aim to promote the idea that nurses must be enabled to lead, delegate, supervise and challenge relevant issues related to nursing and healthcare. In addition, the NMC (2010) also asserts that these educational standards will facilitate the nurse's holistic competence, the ability of a nurse to be analytical, problem-solving and evidence-oriented to address current and future nursing requirements. In other words, the NMC's educational standards (*ibid.*) envision a critically-thinking practising graduate nurse equipped and prepared for the changing nursing needs of society. These abilities must be governed by the essential professional values as seen within the Code (NMC, 2015) and guidance on professional conduct for nursing and midwifery students (NMC, 2009) to meet public trust and expectation (NMC, 2010). It could be said that these standards do not break new ground in terms of what is expected of the nurse, nursing or nurse education, and continue to relate to the RCN's definition of nursing:

> "Nursing is… the use of clinical judgement in the provision of care to enable people to improve, maintain or recover health, to cope with health problems, and to achieve the best possible quality of life, whatever their disease or disability until death" (RCN, 2003:3).

In addition, the NMC looks towards the European Tuning Project to underscore and guide its standards:

> "A professional person achieving a competent standard of practice at first cycle level following successful completion of an approved academic and practical course. The nurse is a safe, caring and competent decision maker willing to accept personal and professional accountability for his/her actions and continuous learning. The nurse practises within a statutory framework and code of ethics delivering nursing practice [care] that is appropriately based on research, evidence and critical thinking that effectively responds to the needs of individual clients [patients] and diverse populations" (Tuning, 2009:20).

27

The latter is a detailed description of nursing and attempts to include the many roles of the contemporary nurse using European descriptors and parameters. This latter description, in particular, demonstrates how the role of the nurse is expected to continue to evolve and is led by society, user needs and expectations. ESD, an arguably integral issue for nurse education, is not mentioned in explicit terms, but could be assumed to be implied through the interpretation of the descriptive contents.

The competency framework proposed by the NMC sets out standards of competency under four domain headings: professional values, communication and interpersonal skills, nursing practice and decision-making, and leadership, management and team working, which are generic to all fields of nursing. Adult nursing will therefore require the expectant registrant to have achieved field competencies that relate to adult nursing, in addition to those that are considered generic (NMC, 2010). The issue of ESD, while not being stated in explicit terms, is implied in statements such as "All nurses must act first and foremost to care for and safeguard the public" in generic terms, and specifically in relation to adults, "All nurses must support and promote the health, rights and dignity of people, groups, communities…" (NMC, 2010:13), in addition to "Where necessary, they must challenge inequality, discrimination and exclusion…." (*ibid.*). These are all issues ascribed to within the concept of ESD. Wade and Parker (2008) contend that ESD gives individuals the knowledge and skills to make informed choices and participate in social and economic development through empowerment. It could be argued that empowerment is very much at the heart of nurse education and nursing practice (NMC, 2010). It could also be argued that, on the basis of the literature reviewed so far, empowerment is sought as an end result of purposeful education which is based on evidence (Goodman and Richardson, 2010; NMC, 2010; 2015). The

professional standards expected of the competent nurse, whereby the service user is seen as a partner in receipt of direct and indirect care/treatment, are all related to issues of equality, the promotion of health and wellbeing through the efforts of practice which are aimed at the person's empowerment for health.

It could be asserted that cultural, social, psychological and, at times, political empowerment affects health and wellbeing and is therefore related to nurse education and ESD (Hubley and Copeman, 2008). Empowerment for health via health promotion, for example, can be viewed as allowing opportunities to own change, self-manage and, in so doing, sustain health and wellbeing as individuals or collectively (*ibid.*). The NMC (2010) emphasises the need for the competent nurse to be non-judgemental and to seek equity and equality where appropriate. To achieve this, the competent nurse must work with appropriate others to facilitate self-care. The term 'sustainable' is not attached specifically to self-care, but the context in which self-care is used can be seen as related to ESD (Goodman and Richardson, 2010).

Further scrutiny of current nurse educational standards in 'Domain 2', (NMC, 2010:15-16) indicates that the competent nurse must establish and demonstrate "excellent communication and interpersonal skills" in order to deliver effective and appropriate quality outcomes at all times. The NMC (*ibid.*) points to the need for the competent nurse to collaborate with other disciplines and service users, exhibit knowledge and understanding and use a plethora of appropriate communication tools along with the use of therapeutic principles to be effective. This is not unlike the assertions of Wade and Parker (2008) or HEA/QAA (2014) in terms of ESD and graduate outcomes. The practice of health promotion and education appears to be a theme that runs through the NMC (2010) Standards for Pre-registration Nurse Education. 'Domain 3' addresses nursing practice and decision-making. In this domain, competence is demonstrated when the

management of care exhibits knowledge and application of appropriate evidence, and can justify and explain the need for invasive and non-invasive care (NMC, 2010). Interventions must be preceded by assessment and followed-up by an evaluation to determine effectiveness. This domain states that the competent nurse must demonstrate the ability to recognise the potential for abuse and vulnerability, and take the appropriate steps in addressing issues related to accountability (*ibid.*). 'Domain 4' relates to leadership, management and team working. In this area, the competent nurse must practise in a way that demonstrates the use of best practice evidence to justify and improve the quality of practice and its outcomes. This encompasses the processes and principles that include individual practice, inter-professional collaboration, continuing education and life-long learning (*ibid.*). ESD does not appear in the NMC (*ibid.*) standards explicitly when compared to that of teacher training institutes, although it could be suggested that the principles within the NMC Code (2008) and its revision (NMC, 2015) and the Standards for Pre-registration Nurse Education (NMC, 2010) all relate to ESD and the HEA/QAA (2014) suggestions and guidance for UK higher education providers.

The association and influences within nursing and nurse education of globalisation are evident within the growth of experience, overseas recruitment, knowledge, technology and innovation (Kirk, 2002). However, Kirk also asserts that this is associated with adverse side effects, such as loss of expertise and knowledge in the UK and abroad in terms of leadership, practice and the influencing of policy in relation to ESD (Kirk, 2002; Richardson and Wade, 2010; Kagawa and Selby, 2010; Richardson *et al.*, 2014).

The evidence suggests that an important theme of the last decade has been the realisation of the implications of globalisation (Dicken, 2003). Globalisation affects economics as well as ecological and social structures (Kirk, 2002).

Progress and innovative opportunities that facilitate health and wellbeing can be attributed to globalisation, but there are also adverse effects, some of which have been unexpected and others difficult to quantify and assess, due to the complexity of globalisation (*ibid.*).

Charlesworth *et al*. (2011) assert that nurses within the NHS are well placed to address the global challenges that sustainability presents in terms of financial, environmental and ultimately climate change. Moreover, they argue that addressing the issue of sustainability within the NHS will not take the service away from its central purpose of quality care for all at the point of need, but will add value. How this will be achieved is not made clear, but it was maintained that the answer remains in nurses' continued engagement in policies and practices that prevent illness and promote health: evidence-based professional leadership. It was also argued that this will only be achieved where patient and/or public empowerment is facilitated using collaborative approaches of enablement (*ibid.*). Patient and public empowerment to prevent ill-health, and to maintain and manage health and wellness, is not a new concept and is particularly applicable to the areas of long-term conditions. In view of the above assertions, the need to determine understanding of the concept of ESD that facilitates patient and public empowerment by those who deliver the current nurse education programmes could be said to remain appropriate, as indicated earlier.

Health at all levels is reliant on sustainable living practices which impact on the physical and psycho-socio-economic environment (WHO, 2010). In addition, the WHO affirms that health is based on environmental and social issues that go beyond geographical and national boundaries and, as such, the issue of global citizenship needs to be taken into account.

Whilst explanations of what education is vary and are complex, empowerment, self and community appear to be important factors. These aspects are also important concepts that apply to nursing practice, nurse education and the concept of ESD (Goodman and Richardson, 2010). The issue of empowerment, for example, resonates in the description of further and higher education in the UK (HEA/QAA, 2014). Both areas of education take place past the age of sixteen. Further education (colleges) offer 'A' levels, higher national certificates or diplomas and foundation degrees. This is different from higher education (universities) where academic and professional continuing education is likely to occur (Walsh, 2012). Empowerment is assumed when successful completion of higher education is accredited and recognised through a qualification which follows successful assessments in a variety of areas considered to be applicable to society (*ibid.*). It could be said that when education does not lead to empowerment or 'freedom', as indicated earlier by Aristotle (according to Hummel, 1999), then the process adopted needs to be reviewed.

In relation to nurse education, Johannson *et al.* (2010) fail to address the question of what education is, but agree that education is important. They assert that education enables nurse managers to lead, and also advocate for more support for evidence-based practice and the pursuant activities that lead to it, because nurse education seeks to embrace the role of the nurse as well as just education. The RCN (2014) also advocates that nurse education must evolve to enable the nurse to lead. To add to this, Adair (2002) and Alimo-Metcalfe and Alban-Metcalfe (2008) indicate that individuals are more effective as team leaders and players when they are confident, knowledgeable and aware of their own abilities. The need for professional leadership through nurse education is also endorsed by the DoH (2001; 2010b). Garet *et al.* (2001) also comment that leadership and excellence in terms of the outcomes of education can only be achieved through an on-going investment in professional

development and opportunities. Galuska (2012) also notes that an opportunity to use and practise what has been learnt embeds knowledge and results in more effective professional leaders. This viewpoint is supported by Eagel *et al.* (2003), who add that professional organisations have a critical role to play in endorsing the importance of evidence-based practice. Mastrangelo *et al.* (2004) assert that effective leaders are judged on what they do as individuals and professionals. Based on these assertions, it could be affirmed that education is enabling and thereby also authoritatively empowering.

Empowerment that embraces cultural competence in addition to sustainable practices, both of which are fostered by education, is integral to ESD and to nurse education. Soulé (2014) states that cultural competence and practice have been and continue to be recognised as goals of contemporary nursing and nurse education. Soulé also strongly suggests that this is due to reasons such as social justice and contemporary relevance. Models to embrace and apply this conviction and realisation of cultural competence relevance have been put forward by others. Dreher and MacNaughton (2002) suggest that being culturally competent and able need not deny the recognition of the importance of individuality and community that is required of education. In this regard, pedagogical approaches to address ESD in nurse education have been proposed. However, it could reiterated that implementation and outcomes are dependent on the understanding of those given the task of its execution (Barrie, 2004; Bursjöö, 2011; Comrie, 2013).

2.3.1 Nurse Education Pedagogical Approaches in Relation to ESD

Barna *et al.* (2012) suggest using the existing nurse education guidelines (NMC, 2010) and marrying these with issues related to CO_2 emissions and climate change legislation, for example. However, Barna *et al.* (2012) do not take into

account the importance of understanding the complexities of individual institutions and the need for further study to guide a framework for execution in practice that will affect its local application (Bursjöö, 2011; Comrie, 2013).

Pedagogical approaches used in nurse education attempt to relate to the many learning theories and learning styles ascribed to a diverse student body, such as behavioural, humanistic theories and Kolb's learning styles (Cannon and Boswell, 2012). In the UK, these approaches relate to the diverse settings and timeframes stipulated by the NMC (2010) to address theory and practice.

The learning theory of andragogy is often used in relation to nurse education (Quinn and Hughes, 2007; Goodman and Richardson, 2010). This theory relates to adult learners and makes the contested assumptions that adults, by virtue of maturity and experience, are motivated, choose to learn, are able to be self-directed, collaborate and solve problems (Norrie and Dalby, 2007).

Notwithstanding the assertions of Norrie and Dalby (2007), pedagogical approaches that have been considered appropriate in relation to nurse education and ESD include real-life evidence-informed scenarios (Richardson *et al.*, 2014). It is believed that an approach which combines methods such as problem-based learning and scenario-related problem-solving, with the appropriate clinical skills, is effective when promoting graduate attributes, contextual learning and, in particular, active learning; the attributes of communication, team work and problem-solving (Wood, 2003; Errington, 2011). One assessment method that may be associated with these approaches is Objective Structured Clinical Examination (OSCE), which tends to be used to examine skills acquisition and, by and large, is scenario-related (Zayyan, 2011).

These approaches and assessments of competences relate to the diverse suggestions of HEA/QAA (2014) and the NMC (2010), which may be applied in appropriate environments and related to practice placements, community settings, skills laboratories and classrooms, and which are summarised in Table 2.3.

Table 2.3: HEA/QAA and NMC Suggested Approaches
to Teaching, Learning and Assessment

Approaches to teaching, learning and assessment	HEA/QAA (2014)	NMC (2010)
Problem-based learning	√	√
Simulation	√	√
Case studies	√	√
Stimulus activity	√	√
Practice/experiential clinical placement	√	√
Experiential project work	√	√
Assessment to examine critical thinking, problem-solving, competence and multi-disciplinary abilities in relation to skills, knowledge and critical thinking	√	√
Mentorship supervision/assessment	√	√

In terms of nurse education, Richardson *et al.* (2014) argue that nurse educators can utilise diverse ways which include real-life contextual examples to entrench sustainability within the curriculum, such as evidence-informed scenarios. Assertions in relation to these approaches relate to the perceived advantages associated with their use, such as the safe environment, patient safety, closeness to real-life simulation and reactions (Berragan, 2011; Mills *et al.*, 2014). However, disadvantages have also been noted in relation to these approaches (Mietzner and Reger, 2005; Berragan, 2011). These disadvantages

relate to challenges such as the time-consuming development of scenarios, resources (participants) and expertise ability to deal with the unexpected (Mietzner and Reger, 2005). Warwick (2007) and Le Heron *et al.* (2006) also acknowledge the challenges presented by collaborative teaching and learning. In addition, while scenarios and/or simulation, for example, attempt to be as real to life as possible, they are not real-life (Berragan, 2011).

2.3.2 *Summary of the Nurse Education Curriculum and its Relationship to ESD*

In the absence of a single national nurse education curriculum, UK institutions of higher education are reliant on their interpretation of the standards and guidelines of the statutory regulatory body, the NMC. In addition to competency standards, the NMC, in its statutory role, lays down criteria within its Code of Professional Conduct to guide the professional and ethical behaviour of registrants (NMC, 2008; 2009; 2010; 2015). The NMC makes no explicit reference to ESD, but it could be argued that the concepts of ESD are implied (Richardson *et al.*, 2014). The NMC's (2010) Standards of Pre-Registration Education and Code (NMC, 2008; 2015), whilst not making explicit reference to ESD, relate to the concepts by addressing matters of the nurse's roles and remits. These roles and remits relate to the facilitation of global citizenship, self-care, collaborative inter-disciplinary working practices, adapting to the changing patient, client and societal needs, among other things (NMC, 2010; 2015). The guidelines and standards also relate to the need for the nurse to facilitate life-long learning, critical thinking and innovation, whilst being 'fit for purpose' in a changing world (NMC, 2010; 2015).

It is also noteworthy that despite the Climate Change Act (2008), professional associations have also been seen as slow in addressing the matter of ESD explicitly (Thomas *et al.*, 2012). Whilst being in contention, the cause of climate

change and its relationship and effects on health and well-being are undeniably matters of concern for nursing and therefore nurse education (Goodman and Richardson, 2010). The lack of explicit reference and nurse education-wide contextual exploration therefore suggests a need to question the understanding of senior lecturers of ESD.

Barna *et al.* (2012) have suggested linking the current UK NMC (2010) educational standards to issues related to sustainability. Pedagogical approaches in UK nurse education related to ESD have favoured the use of multi-disciplinary evidence-informed scenarios that appear to engage students, in addition to facilitating the questioning of practice and accepted knowledge (Richardson *et al.*, 2014). It could be said that while approaches such as scenarios and simulation are associated with advantages in terms of learning, there are also disadvantages that need to be considered in terms of their deployment (Mietzner and Reger, 2005), the role of the nurse and the question of what nursing is. In addition, issues related to the complexities of change management and staff developments, such as fear and the readiness to change (Ginsburg and Tregunno, 2005; Jones, 2006; Atkinson *et al.*, 2007), have not been addressed by Barna *et al.* (2012), for example.

2.4 The Role of the Nurse in Relation to What is Nursing, Education and ESD

It could be said that issues relating to the role of the nurse, what nursing is, nurse education and ESD are interconnected and consequently difficult to separate. This assertion is borne out by the consideration that nurse education needs to respond to changing world demands (Benner *et al.*, 2010; Goodman and Richardson, 2010; Richardson *et al.*, 2014).

The role of the nurse is difficult to define, because the nurse's role and remit is continually changing and evolving to meet the needs of society. This perspective is supported by the RCN (2003), which has also suggested that an absolute definition of nursing is not realistic. In addition, this view has been expanded further to suggest that contemporary nursing in the UK is dynamic as a science and art, and as such evolves to meet the needs of a continually changing and diverse society (RCN, *ibid.*). The RCN also argues that to define nursing may restrict an understanding of the role of the nurse. Therefore, rather than a definition that can be applied to the professional nurse in the UK, a comprehensive description of nursing is useful because the evidence indicates that this will allow professional practice and its associated education to be to some degree quantifiable (Clark and Lang, 1992). The RCN (2003) concurs that a description of nursing is facilitative in terms of role clarification, formulating policy at national and international levels, identifying areas for research and workforce planning.

In view of the above, the role of the nurse and what nursing is may be considered as the deployment of specific clinical judgements when administering care that allows the individual (from all areas within society) to improve, maintain and recover health (ICN, 2014). Nursing also enables the individual to adapt to and manage health problems and achieve a relatively appropriate quality of life until death. The expectation is that the nurse acts to promote health, healing, growth, development, and prevent disease and illness, with the purpose of minimising relative misery and affliction towards a peaceful death. In the event that death is expected and unavoidable, the role of the nurse is to facilitate the quality of the individual's experienced journey (RNC, 2003; ICN, 2014). This area of the nurse's role appears to accept that health, while desired, is not always achieved and that death is a natural end to life (ICN, 2014).

Health is a "complete state of physical, mental and social wellbeing and not merely the absence of disease or infirmity" (WHO, 2006:1). This definition of health by the WHO, which has not altered since 1948 (WHO, *ibid.*), makes the assumption that health in its entirety cannot exist in the absence of ideal social, political, environmental and economic circumstances. The role of the nurse and nurse education, using the above affirmations, could be said to imply that the nurse must be in possession of the necessary knowledge to underpin practice (NMC, 2015). It could also be seen to indicate that knowledge and context must be applied to the economical, social, political and environmental issues that affect health and wellbeing (*ibid.*).

The issue of the environment and its relationship to the whole person is seen as integral to nursing, its practice and education (Hall and Richie, 2009; NMC, 2010; 2015). This view is also supported by the beliefs of nursing theorists such as Sister Callista Roy (Roy, 2011), who contends that humans do not exist in isolation but are affected by a multitude of issues in relation to body, mind and soul. This includes human interaction with internal and external environments (*ibid.*). Humans can and do affect, as well as are affected by, their environments on many levels. This relationship with the environment can be viewed as both intentional and unintentional. Roy (*ibid.*) also states that nursing practice acts to enable humans (individuals, families, groups and communities) in their adaptation to their environments (Hall and Ritchie, 2009). This model of nursing could be said to have areas in common with ESD, such as the uniqueness of humans and social justice. However, Kleffel (1996) suggests that models which concentrate on the individual are narrow and, as such, may be viewed from an 'egocentric' perspective. Neuman's nursing model, on the other hand, while similar to that of human adaptation, allows for a greater environmental viewpoint and acknowledges the relationship between humans and their environment

(Aggleton and Chalmers, 2000; Kirk, 2002). This 'eco-centric' approach can be seen to address an evolving nursing consciousness in relation to ESD (Kleffel, 1996). However, explicit reference to the concept of ESD remains lacking in nursing literature (Goodman and Richardson, 2010).

It could be asserted that the role of the nurse in terms of reducing inequalities in health and patient empowerment are integral to the remit of nursing practice and therefore associated with nurse education (NMC, 2015). It could also be argued that evidence-based nursing practice is reliant on nurse education and thus appropriate education is necessary to empower and enable the nurse when using an holistic perspective on education, such as with disaster planning (Cannon and Boswell, 2012; Fara *et al.*, 2015). This requires intellect and the ability to utilise critical judgement to practise the therapeutic interventions of personal care, advocacy, knowledge development and teaching (Institute of Medicine, 2010). Essential to nursing is the realisation of dignity, autonomy and the uniqueness of all human beings and communities (NMC, 2015). These elements of nursing are documented in the revised code: "The Code: Professional Standards of Practice and Behaviour for Nurses and Midwives" (NMC, 2015) and also embedded within the concept of ESD (UNESCO United Kingdom Commission, 2010; World Bank, 2003; 2011; HEA/QAA, 2014).

While nursing may be viewed as professionally independent and accountable for its practice, it is considered as both dependent and interdependent on other professions, groups and disciplines in order to be effective (NMC, 2015). In addition to the roles in relation to behaviour and education, the NMC also investigates allegations of incompetence and malpractice (NMC, 2009).

Despite the overarching responsibility of the NMC and the professional advice of organisations such as the RCN in relation to professional, clinical standards,

education and role of the nurse, the term 'ESD' is not explicit or visible within its literature (Goodman and Richardson, 2010; Thomas *et al.*, 2012). Therefore, in terms of producing a knowledgeable, competent and ethical practitioner who is orientated to seeking and achieving health and wellbeing as stipulated by the NMC (2010), this absence of explicit reference could be seen as questionable in relation to 'fitness for purpose' in the real world (Sterling, 2001; James, 2007). Following the Francis Report which looked into unacceptable standards of patient care (Francis, 2013), the NMC (2013) confirmed its commitment to making the changes needed to deliver a high standard of regulation to protect the public. However, the NMC is not the only organisation that influences nurse education. The QAA also influences nurse education in terms of programme design and delivery in higher education institutions in the UK.

The QAA for higher education in the UK provided a nursing benchmark statement which indicated the need for nurse education to prepare and facilitate the competent practice of nursing in diverse settings that is appropriate to the needs of patients and clients, and within social, economic and political contexts (QAA, 2001; 2012). Although this nursing benchmark does not refer explicitly to ESD, it recognises that nursing (and hence nurse education) needs to operate and promote a safe environment (QAA, 2001; Kirk, 2002; QAA, 2012). The HEA also considered the role of higher education institutions in relation to ESD. As a consequence of the related recognition of ESD, the HEA and QAA (2014) have jointly readdressed their stance and make explicit reference to the concept of ESD in terms of graduate outcomes, whilst recognising regional disciplinary differences and applications; a further reason for this study.

It could be said that the goals of ESD, nurse education, the role of the nurse and what nursing is, are linked (HEA/QAA, 2014; NMC, 2015).

The links between the role of the nurse, what nursing is, education and ESD, can therefore be affirmed as appropriate and purposeful activities to address matters that lead to health and/or a peaceful death (Roy, 2011; Goodman and Richardson, 2010; HEA/QAA, 2014; Richardson *et al.*, 2014; NMC, 2015). These are summarised in Table 2.4.

**Table 2.4: Summary of the Goals of ESD, Nurse
Education Curriculum and the Role of the Nurse**

Goals	ESD	Nurse Education	Role of the Nurse
Graduate preparedness	√	√	√
Critical thinking	√	√	√
Reflective practice	√	√	√
Empowerment	√	√	√
Individual awareness	√	√	√
Societal awareness	√	√	√
Multi-disciplinary approach	√	√	√
Evidence-based practice	√	√	√
Social justice, wellbeing and ethics	√	√	√
Current and future applications	√	√	√
Life-long learning	√	√	√
Leadership	√	√	√

Matters that affect health and/or a peaceful death include social, individual, community, environmental, global and economic issues (NMC, 2015). The role

of the nurse must arguably be underpinned by up-to-date knowledge, evidence and practice (Benner *et al.*, 2010; Cannon and Boswell, 2012). The education to support this role must equally be relevant and responsive to the changing world in which the nurse practises and is educated (Benner *et al.*, 2010; Richardson *et al.*, 2014; Fara *et al.*, 2015).

This responsiveness of nurse education requires higher education to facilitate critical thinking to allow transformation, in addition to the necessary innovation to be sustainable now and in the future, as imperative (HEA/QAA, 2014; Richardson *et al.*, 2014). Therefore, questioning the understanding of those charged with the roles of educators and facilitators of graduate outcomes in relation to ESD can be affirmed as appropriate (Barrie, 2004; Reid and Petocz, 2006; Cotton *et al.*, 2007; Nikel, 2007; Bursjöö, 2011; Comrie, 2013).

Studies that examine lecturers' understanding of sustainability are available, albeit not exclusively in relation to nurse education, and include that of Reid and Petocz (2006), Cotton *et al.* (2007) and Nikel (2007).

2.5   Lecturers' Understanding of ESD

There is little literature in general that addresses the understanding of lecturers in relation to ESD (Thomas *et al.*, 2012) and there is none that looks specifically at the understanding of nurse education lecturers, despite the asserted association between understanding and action (Bursjöö, 2011; Thomas *et al.*, 2012; Comrie, 2013).

Reid and Petocz (2006) have examined university lecturers' understanding of sustainability using a phenomenographical approach to discern the different ways that lecturers perceive the issue of sustainability. This examination was

restricted to the Macquarie University in Australia and did not cover the UK, but similarities may be drawn with the intention of this thesis. The Reid and Petocz study was not specific to nurse education and set out to examine understanding across disciplines which they viewed as an advantage rather than a limitation, in the hope that curricula could be affected with regard to the issue of sustainability. The background for their investigation stemmed from issues addressed at the Johannesburg Earth Summit in 2002, where there was agreement that sustainable development ought to be addressed at all levels of education (Reid and Petocz, *ibid.*). Reid and Petocz assert that sustainability needs to be covered by multiple disciplines for the preparation of professionals in view of their anticipated impact on society in their working lives. They also feel that curriculum development requires creative thinking and creative teaching methods that embrace the relevance of diversity, in addition to the application of the concepts of ESD. Goodman and East (2014) concur with this and suggest a re-thinking of nurse education curriculum development, proposing that this should aim to add relevance in relation to wellbeing and health, to individuals as well as societies as a whole, in addition to placing the issue of sustainability at the forefront.

Reid and Petocz (2006) cite that the participants in their study did not see the concept of ESD as integral components of what they taught. At worst, these participants considered the issue of sustainability as a discrete thing which could be considered to appease political correctness. However, some participants in this study viewed the concept from the student learning perspective and addressed how to amalgamate the concept with student outcomes and professional preparedness. Unexpectedly, the study found that, despite sustainability being taught within programmes and by some participants affiliated to subject areas such as environmental studies, the terminology of ESD or similar words and phrases were rarely used by academics. Where

connections to sustainability were made, this was found to be basic in terms of the interpretation of the word, related to the recycling of paper and limited in scope (Reid and Petocz, 2006). Ultimately, this study demonstrates that the language used in relation to sustainability is important to address context, implementation and integration in curricula, because it is affected by experience and understanding (Reid and Petocz, 2006; Dawe *et al.*, 2005). The limitations of a single site study were not considered by Reid and Petocz, despite the conclusions drawn, nor was a way forward addressed in terms of teaching and learning.

Cotton *et al.* (2007) also recognised the increasing role that the concept of ESD was playing within higher education in the UK. Similar to Reid and Petocz (2006), Cotton *et al.* (2007) also saw that little was known about the understanding of lecturers. Cotton *et al.* utilised a questionnaire survey to canvas a large cohort of participants from a multitude of academic disciplines within higher education. Similar to Reid and Petocz, Cotton *et al.* found that the understanding of ESD varied. In addition, Cotton *et al.* found that the survey generated much debate in relation to the concept of ESD. Moreover, they noted that there were suggestions within the responses that the language of ESD may be "inaccessible" (2007:579). This could be seen to relate to Reid and Petocz's (2006) findings in terms of the use of the associated terminology that relates to sustainability. However, this research found that there was overall support relating to sustainability, in addition to how this may be seen within teaching and learning. but the way forward in relation to curriculum change and development were assessed as less clear (Cotton *et al.*, 2007). Unlike Reid and Petocz (2006), this study considered the issue of approaches to pedagogy and institutional change as being fundamental to the application of ESD.

Nikel (2007) reports the issue of responsibility from a study conducted in three countries of student teachers' understanding of sustainable development, in addition to the reasons for education and the role of ESD in particular. This study was undertaken in England, Denmark and Germany, and could thus be seen as different from the studies of Reid and Petocz (2006) and Cotton *et al.* (2007) in terms of its size, cultural backgrounds and institutional settings. The participants in Nikel's study were not university lecturers, but all shared the common goal of becoming teachers in primary and secondary educational institutions, with a particular need to respond to their nation's policy in relation to ESD. It is not clear whether the need to respond to a nation's policy and being politically correct are the same thing, but Reid and Petocz (2006) note that this perspective of need is viewed as a negative by the participants in their study. Nikel's (2007) approach was different to that of Reid and Petocz (2006) and Cotton *et al.*'s (2007), albeit qualitative. Nikel adopted an interpretive qualitative design. The data collection method used combined data from questionnaires, a narrative task, followed by participant interviews. Nikel points out that the data collected were not analysed using a single theoretical framework, justifying this by arguing that an abductive approach was more appropriate. Ultimately, what Nikel found was different from Cotton *et al.* and Reid and Petocz. Nikel's findings centred on the participants' perspectives and interpretations of their roles for which they were in training and in relation to ESD. The ascribed interpretations demonstrated that the participants' understanding was that ESD was about generating a sense of responsibility: taking and having responsibility.

The concept of responsibility can be viewed from perspectives such as control and delegation (Fleurbaey, 1995). Responsibility is one of several characteristics of morality that matures along with individual autonomous rational behaviour and experience (Bivins, 2006). It can be seen that Nikel's (2007) participants addressed and understood ESD from a personal but more

so from a professional stance. Apart from Cotton *et al.* (2007), these studies did not address or account for the complexities of local objectives, strategies and change management with regard to any limitations of their study. Although all studies adopted qualitative approaches, these were executed differently. Nikel's (2007) mixed method, a large team of researchers and multiple sites could be seen as an attempt to minimise the limitations of a single site and testing of interpreted subjectivity, but may have added to vagueness in terms of a way forward.

The issue of responsibility can be likened to the nursing objectives related to the promotion of health via empowerment, both of which relate to the role of the nurse and the goals of nurse education (Richardson and Wade, 2010, Kagawa and Selby, 2010; NMC, 2010; 2015).

The facilitation of empowerment could be said to be common to these findings, the goals of ESD and nurse education in terms of the 'what', 'why' and 'how', and outcomes for graduates and nurse education in particular (NMC, 2010; HEA/QAA, 2014; NMC, 2015). It could also be said that the findings of the Francis Report have placed the facilitation of empowerment at the heart of its recommendations for the quality of patient care (Francis, 2013). This is in addition to the provision of care that is underpinned by professional evidence-based knowledge, competent and monitored (*ibid.*). This resonates with the professional nurse code, its revision (NMC, 2008; 2015) and ESD (HEA/QAA, 2014).

The link between nursing practice and nurse education is not disputed, and it is believed that one informs and is guided by the other (Richardson *et al.*, 2014). However, the apparent restricted knowledge base within nurse education literature and the lack of explicit reference to ESD in nurse education's

standards and current curricula (Goodman and Richardson, 2010; Richardson *et al.*, 2014) further influenced this thesis' research question.

The suggestions that nurse education needs to be contextual and relevant to society's needs locally, nationally and internationally are strongly held viewpoints (Benner *et al.*, 2010; Goodman and Richardson, 2010; Richardson *et al*, 2014). However, empirical evidence to support the discernment of the understanding of nurse educators (senior lecturers) who are expected to facilitate contextual and relevant content, its planning and subsequent delivery within higher education is limited, yet considered essential (Barrie, 2004; Bursjöö, 2011; Comrie, 2013).

To research the understanding that is believed to underpin the way teaching is actioned, the University of Surrey (Comrie, 2013) launched a 'Skills Advisory Group' with the working title of 'Skills Management Group' (SMG), which observed the creation and growth of 'skills' within the University of Surrey. To inform this study, the group recognised that there were differences and omissions in the way skills were planned and delivered and, more to the point, that these differences may be influenced by the understandings held by lecturers in relation to skills. To establish what these differences were, the SMG employed an adapted phenomenographic approach to establish the lecturers' understandings to explain their subsequent delivery and approach to skills teaching and acquisition. The decision by the SMG to use this approach was also influenced by the work of Barrie undertaken earlier in 2002. Barrie, of the University of Sydney, created a research-based approach to underpin the teaching and learning policy of generic graduate attributes (GGAs). This was a result of using a phenomenographical approach to elicit the understanding of lecturers to explain their educational teaching and learning behaviours that lead to academic development and practice (Barrie, 2004).

2.6.1 Summary of Lecturers' Understanding of ESD

The literature reviewed to inform this section, although general insofar as it was not specific in relation to nurse education, was insightful in terms of justifying the need for this thesis' research question (Boote and Beile, 2005). Despite the lack of comprehensive limitations, insights from national and international studies have demonstrated areas of understanding in lecturers and teachers in training which used different qualitative approaches yet uncovered similar results. Reid and Petocz (2006) and Cotton *et al.* (2007) found that the language used to address ESD differed and this affected understanding. Interestingly, both these studies recognised the scarcity of literature in this area and equally noted that this knowledge of shared understanding was essential to developing a curriculum that was inclusive, contextual and explicit in relation to ESD (Reid and Petocz, 2006; Cotton *et al.*, 2007). In addition, the studies reviewed demonstrate that, even with experience in the area of sustainability, the language used in relation to ESD was viewed as difficult because the varying terminologies conjured differing meanings and experiences. Reid and Petocz (2006) and Cotton *et al.* (2007) found that more work is required in the area of ESD to integrate it into the curriculum. Nikel (2007), on the other hand, collected data from multiple sites of differing nations, cultures and backgrounds. The issue that was common to this cohort of participants was that they were all teachers in training with the same goal of satisfying national policy. Moreover, these participants were training to teach in primary and secondary schools rather than in higher education, and their individual experiences of the terminology of ESD may have been an influential factor in their understanding. Nikel justified a qualitative approach of interpretative abductive reasoning and found that the participants' understanding developed their future roles and views relating to responsibility.

2.6.2   Conclusion of Literature Review

It could be seen as reasonable to consider that the concept of ESD, in terms of 'waste not, want not' now to allow resource/s for future generations, in addition to issues related to climate change, health, prevention of long-term conditions and wellbeing should appear within nurse education (Goodman and Richardson, 2010; Richardson *et al.*, 2014; HEA/QAA, 2014; NMC, 2015).

The dearth of explicit reference and application of the ESD concept within the nursing literature may have been instrumental in the absence of explicit ESD within current nurse education thinking and practices. A consideration of ESD is needed to further address the relationship between issues such as the environment, climate change, poverty and social justice, because these are implied and believed to be integral to professional nursing (Richardson *et al.*, 2014; NMC, 2015). Reid and Petocz (2006) and Cotton *et al.* (2007) found that their respective studies stimulated further discussion in relation to sustainability. Neither Reid and Petocz nor Cotton *et al.* suggest a way forward to implement ESD into the curriculum. Conducting this study and addressing the issues of ESD may also stimulate discussion locally and affect lecturers' thinking, at the very least, in addition to influencing current and future curricula content and delivery at LSBU (LSBU, 2014).

Pedagogical approaches in relation to ESD appear to be underpinned by active learning rather than passive learning techniques where learner involvement, context and the link to real-life situations are highly favoured (HEA/QAA, 2014; Richardson *et al.*, 2014). These approaches also support professional development and preparedness in terms of graduate outcomes (HEA/QAA, 2014; Richardson *et al.*, 2014). It is also acknowledged that some approaches

(such as simulation, for example) are associated with the challenges related to development and implementation (Mietzner and Reger, 2005; Berragan, 2011), and important for teacher skill development (Garet *et al.*, 2001). The evidence to underpin local pedagogical approaches in relation to ESD remains much needed (Bursjöö, 2011).

The research reviewed, whilst it was not nurse education specific and included teachers in training, was valuable in relation to underscoring the aim of this thesis. The qualitative approaches used varied methods for data collection and analysis, ranging from semi-structured interviews, questionnaires and a mixture of questionnaires, to a narrative task followed by an interview. Subsequent findings bore similarities as well as differences, but all were found to be significant in relation to addressing the understanding of the concept of ESD to some degree (Reid and Petocz, 2006; Cotton *et al.*, 2007; Nikel, 2007).

It could be argued that how the surrounding world is understood will in turn influence behaviour, and relate to the development of consensus and a framework for practice (Barrie, 2004; Kemmis and Smith, 2008; Bursjöö, 2011; Comrie, 2013). Therefore, the adopted methodology for this study into senior lecturers' understanding of ESD sought to discern initial and current experiences of ESD locally at LSBU, in addition to establishing its shared perceived relevance to nurse education and a local way forward. To this end, a phenomenographical approach was used, and this is addressed in Chapter 3.

CHAPTER 3: METHODOLOGY

3.1   Introduction to the Methodology

In this chapter the qualitative approach of phenomenography will be described, explained, discussed and justified. This will be achieved by reviewing the literature that provides the requisites of a recognised methodology. What comprises a methodology in terms of the research process and why it is asserted to be important will also be considered. It is acknowledged that there are a number of recognised qualitative approaches, but an argument will be made in support of phenomenography for this study. The activities of reflection and reflexivity are also discussed as part of the research process because they are used to enable transparency of the process.

3.2   Methodology

A methodology is considered to be imperative in the research process, because it provides the philosophical underpinnings (beliefs and assumptions) which guide the manner in which data is collected, analysed, reported and subsequently discussed (Parahoo, 2006). In addition, the literature suggests that the methodology enables an understanding of whether and why the study is quantitative, qualitative or mixed (*ibid.*). It also suggests that a methodology enables the justification of the methods used when conducting research (Parahoo, 2006; Carter and Little, 2007).

The research question, its objectives and design, determine the methodology and *vice versa* (Carter and Little, 2007). It has also been argued that the methodology relates to what is understood by knowledge and truth, in addition to whether or not this can be quantified or solely rests on interpretation (*ibid.*).

Explaining the research methodology can be seen to facilitate a systematic and transparent approach to answering a question (Redman and Mory, 2009). Therefore, it is essential to use an approach to solve the question that is underpinned by principles that relate to the question and offer the best route to an answer (*ibid.*).

The issues that arise within a chosen methodology relate to whether its selection adequately answers the research question and, as such, whether it is clearly understood, in addition to whether it is valid and considered credible (Avis, 2003). Avis also acknowledges that the methodology relates to and affects the clarity of ethical principles in addition to data collection, analysis, discussion of findings and recommendations. It can therefore be said that the methodology endeavours to provide clarity and justification of the methods used to answer the research question, in addition to achieving the objectives within an enquiry (Carter and Little, 2007). This can be aided by the presentation and interpretation of personal accounts, viewpoints and beliefs to create knowledge (Parahoo, 2006; Carter and Little, 2007). It is also opined that the manner in which these issues are researched, examined and interpreted will be influenced by beliefs and assumptions about what creates and contributes to knowledge (*ibid.*). This will affect the relationship between the researcher (me, the author of this thesis), the participants and the ultimate audience of the study (Mantzoukas, 2004; Mantzoukas and Jasper, 2004). Critically, a methodology is value-driven and affected by what is considered right, wrong, trustworthy and credible (Avis, 2003; Parahoo, 2006; Carter and Little, 2007). This is referred to by Carter and Little (2007) as relating to epistemology being 'axiological' and, as such, engages with cultural contexts and ultimate interpretation.

Methodology is viewed as the principles that guide research practices and by which research tools (methods) are chosen and applied. The term

'methodology' is made up of 'method', which relates to the means and ways of, and 'ology', a branch of knowledge (McGregor and Murnane, 2010). The tools of the investigation (methods) and the values that control how the tools are set up and construed (methodology) are determined by the researcher's position and the research question(s). Regarding the former, the researcher takes a stance on the nature of the research, as an independent neutral observer at one extreme of the spectrum, or is implicated throughout as the designer, observer and author. Research seen as researching the other and making sense of the world views of the researched will call for some methods as appropriate, but not others. Whilst qualitative methods are contrasted with quantitative methods, mixed methods can be used in social science research, but with care (Boeije *et al.*, 2015). Both methods and methodologies must be established and justified by the researcher, the limitations recognised and identified, and reflection at the end of the process is essential (Carter and Little, 2010; McGregor and Murnane, 2010). Methodology and its place within a study is illustrated in Figure 3.1.

**Figure 3.1: The Simple Relationship Between
Epistemology, Methodology and Method**
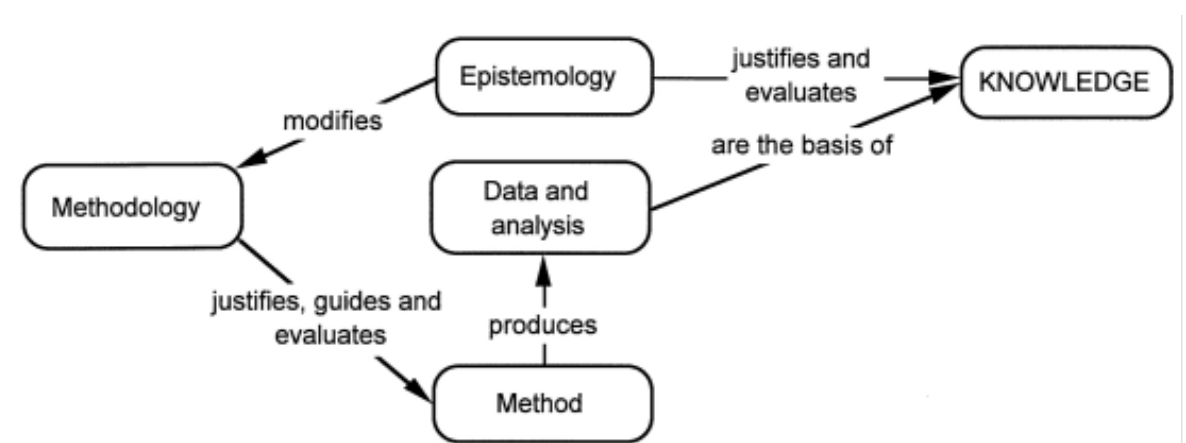
Source: Carter and Little (2007:1317).

54

3.3   A Qualitative Approach

Qualitative research covers many approaches and methods, and can be described as a process that allows the exploration, examination and answering of questions about phenomena in the world around us (Ereaut, 2010). It may use focus groups, ethnography, semiotics, phenomenology and phenomenography, to name a few approaches. Qualitative research uses these approaches to collect and analyse data that may be sourced from unstructured or semi-structured interviews, literature reviews, transcribed verbatim audio-taped recordings, pictures and even social media webpages (*ibid.*). Leading to the development of theories, plans and action, qualitative research is seen particularly as an interpretative and naturalistic approach that looks into the meanings and processes used by people to assign meanings to experiences, values and beliefs (among other things) within the world around them (Richie and Lewis, 2003). Parahoo (2014) and Ritchie *et al.* (2014) indicate that qualitative research may:

- be singular and exist on its own to enable in-depth explanation, description and interpretation, such as with phenomenography; and
- be used in combination with other approaches to allow a variety of meanings that can be quantified as well as interpreted, such as with surveys and statistics in a mixed approach and/or triangulation.

The collection of meanings and understandings can then be compared and contrasted, and the similarities and differences in relation to the same phenomena can then be analysed using the relative prescribed qualitative methods (Carter and Little, 2007; Parahoo, 2014).

In view of the above assertions, it was decided that a stand-alone qualitative approach was appropriate for this study. In addition, this approach would allow the research question to be answered and also describe the individual and shared perceptions, meanings and values related to ESD (expressed in words, verbatim from transcribed audio-taped recordings). Morgan and Drury (2003) and Watson *et al.* (2008) observe that the personal expression of understanding is such that it conveys the participants' individual interpretations of an issue, event or experience. They maintain that this interpretation can be observed, verbally gathered and then subjected to categorisation using carefully selected methods in an attempt to remove bias and portray accuracy and truth. This can be achieved using evidence-based transparent methods of participant selection, data collection and analyses (*ibid.*). They add that to remove any suggestion of bias, the researcher must provide documentation that clearly justifies the methodological approach, then describes and provides critical details of the methods used to support and build the ultimate conclusions. However, any lack of clarity allows room for doubt and the questioning of the conclusions drawn. To this end, Tong *et al.* (2007) suggest a 32 item checklist for reporting qualitative research which, by and large, seeks to demonstrate transparency and ethical correctness in terms of the research process.

Carper (1978) suggests that there are four ways of knowing in terms of nursing knowledge: via empirical investigation, moral, personal and aesthetic knowledge, which can be made apparent during the process of reflection. This perception is supported by Heath (1998), as well as by the assertions in Johns' 10th model of guided reflection (Johns, 1995). Johns' model may be criticised in terms of its prescription and the disciplined manner of guided reflection for knowing (Heath, 1998), which may account for its revisions towards holism (Finlay, 2008). It is also noted that critical reflection can take in various forms that are personally meaningful and equally can be used for professional growth,

development and the demonstration of transparency, by not being a fixed entity (Morrow, 2009). It is argued that the need for 'disciplined' guidance may be viewed as potentially biased, because the value and belief system of the originator (researcher) may potentially alienate and cloud the expression of the individual's (participant's) relative reality and truth (Heath, 1998). Therefore clarity, transparency and clear documentation that accurately relay the data, its analysis and subsequent conclusions, are essential. In relation to this view, Guba and Lincoln (2000) emphasise that qualitative research requires modes of clarification that are appropriate to its processes and practices, rather than attempting to operate within rules of positivism (quantitative research).

In critique, Avis (2003) questions the need for methodological theory in qualitative approaches, because of the very nature of qualitative enquiry which is reliant on interpretation. Avis argues that this cannot be absolute, quantifiable, objective or concrete, and that to expect qualitative research to be judged using the same criteria as quantitative enquiry is unrealistic. In addition, Avis reasons that credible research does not need to justify itself by using the dogma that is dictated by positivist proponents, because the nature of knowledge and its justification is relative and contextual. Moreover, according to Avis, those who argue that there is the need for an epistemological basis that seeks rigour via the determination of objectivity and reproducibility with qualitative inquiry are misguided in their attempt to seek acceptance and legitimacy alongside positivist proponents. This argument is supported by the assertions of Quine (1954), who stresses that knowledge, and that which justifies it, is mobile and changeable with time and that more importantly, knowledge is man-made. Notwithstanding the assertions of Quine (*ibid.*), it could be said from the standpoint of the qualitative approach used in this research and in justification of phenomenography (the chosen methodology), that research inquiry is based on the need to know and therefore the process

and its outcome will also be 'man-made' and subject to interpretation which is changeable and contextual (Quine, 1954; Avis, 2003; Carter and Little, 2007). It is argued that qualitative forms of inquiry also allow the differences in the way that 'truth' is constructed to be explored via interpretation of the personal associations of realities which are not concrete and arguably relative (Carter and Little, 2007).

In view of the above assertions, and given the epistemological and ontological perspectives, the qualitative approach of phenomenography was considered and chosen as the most appropriate of the several qualitative methodologies considered (Marton, 1981; Avis, 2003; Carter and Little, 2007; Parahoo, 2014).

3.4   Phenomenography

The term 'phenomenography' is believed to have been first used by Sonneman (1954), but then further developed and used as a research approach since the 1970s (Hasselgren and Beach, 1997).

In relation to this approach, Marton (1981), who is credited as being the founder of phenomenography, explains that phenomenography rests on the assumption that individuals interpret aspects of reality in limited inter-related different ways.

Marton and Booth (1997) explain Kroksmark's etymological account of the term (i.e., that phenomenography is a composite of 'phenomenon' and 'graphy'). Phenomenon originates from the Greek verb 'fainesqai' (which means 'to appear' or 'to become manifest'), and gives the noun 'fainemonon' (which means 'the apparent' or 'that which manifests itself'). The verb comes from 'fainw' (which means 'to bring to light' or 'to elicit'). The idea of a phenomenon, therefore, relates to that which appears independently or, as stated by Marton

and Booth (1997:110) "that which is manifest". In addition, the suffix 'graphy' relates to the writing about or representation of, through Latin-Greek, 'graphia-' from 'graphein' ('to write descriptive') (The Free Dictionary, 2014). The suffix 'ology', on the other hand, as seen in 'phenomenology' is from the Greek ('to talk', 'to speak in a certain manner') (Wordinfo, 2014). Therefore, it could be stated that an important difference between phenomenography and phenomenology is the use of graphic descriptions, as opposed to just the lived and narrated interpretations (Barnard *et al.*, 1999). It is also believed that phenomenography is complementary to other forms of enquiry, such as phenomenology. Barnard *et al.* (*ibid.*) view the differences between phenomenology and phenomenography as follows:

- Phenomenography highlights shared meaning, whereas phenomenology concentrates on an individual's lived experience.
- Phenomenography describes limited (closed) inter-related, but not finite, different ways of understanding. Phenomenology, on the other hand, focuses on similarities and a particular quintessence.
- Phenomenography engages with a second order perspective of individual description to discern meaning, whereas phenomenology employs the first order perspective. This means that phenomenography takes into account the experience of the phenomenon in addition to what is known of the phenomenon: pre-reflective and conceptual beliefs. On the other hand, phenomenology focuses on the lived experience and, as such, assumes that pre-reflective and conceptual understandings are separate.
- The analysis process of phenomenography indicates conceptions (collective) and the outcome space, whereas with phenomenology, analysis signposts component parts.

Phenomenography seeks to describe, analyse and relay qualitatively different aspects of understanding experiences by allowing for *what* is understood as well as *how* the individual understands and, as such, it is argued to be complementary to other forms of enquiry because of first and second order perspectives (Marton, 1981). How the individual understands a situation, event or issue is believed by Marton to rest heavily on how it is experienced. In the first order perspective, the question is what something really is, but in the second order perspective, the question is how the phenomenon is experienced and therefore viewed and understood; the second order perspective being complementary to the first (*ibid.*).

It has been theorised that the world around us is subject to our thoughts and how we view them. These theories rest on the belief that individuals and groups are not independent of their surroundings; individuals and groups affect actions, outcomes and, moreover, individuals are complex and attach meaning. In other words, meaning is 'man-made' and therefore an objective reality is questionable (Wilson, 2005).

Descartes, on the other hand, does not view reality as a 'yes' or 'no' phenomenon. In support of this, Hardin and Higgins (1996) consider that without social verification, an experience is a passing set of circumstances which, when shared and believed by others, becomes a shared reality. As such, this experience becomes an objective reality and accepted truth by the individual and within the society where it was created (*ibid.*). It determines communication, stereotyping, attitudes and even self. They further suggest that this reality becomes justified by its continued maintenance and social acceptance as truth.

In phenomenography, as proposed by Marton (1981:177), conceptions of understanding are well-thought-out 'categories of description', mapped out to discern understanding. Barnard *et al.* (1999:223) conclude that phenomenography is "interested in the content of thinking rather than the process of thought or perception". Ornek (2008) clarifies this by maintaining that phenomenography allows the researcher to study how people experience a given phenomenon, but not to study the given phenomenon itself. Therefore, in this study, the question is not ESD itself, but how this is conceived and experienced and ultimately understood by senior lecturers.

Walker (1998) also comments that phenomenography concentrates on ways of experiencing different phenomena, ways of viewing them, knowing about them and having skills connected with them. The target for investigation and discovery is to find not a single principle but the disparity and, more particularly, what underlines the differences, and ultimately to arrive at the 'outcome space' in relation to the phenomena.

Outcome space signifies the established 'categories of description' and summarises how they are related. The outcome space also shows the uniformity of the categories (Walsh, 2000:26). Continual examination of the transcripts will guide the creation of the 'categories of description'. Outcome space is also described by Marton and Booth (1997:125) as representing the multi-faceted composition of the 'categories of description'. To further explain outcome space, Marton (2000) adds that the outcome space can be seen as the concentration of the many different ways in which a phenomenon can be experienced.

> "A more reasonable idea is to see the object as a complex of the different ways in which it can be experienced… 'outcome space' thus turns out to be a synonym for 'phenomenon': the thing as it appears to us, which contrasts with the Kantian 'noumenon': 'the thing as such' " (Marton, 2000:105).

61

Therefore, the outcome space ends up being a number of interpretations, meanings and ideas, demonstrated and represented in a way that demonstrates their connection (Marton, 2000). However, Trigwell (2000) suggests refinement into 2-9 groups of ideas, adding that where the number is small this may relate to the experience being relatively the same for all participants in the study.

Phenomenography rests on the belief that it is 'substance orientated' and therefore anything that can be said about a phenomenon, both conceptual and experiential, is believed to be acknowledged as understanding. In other words, what you know and how you experience it leads to what you understand of it. This allows for individual and cultural ways of knowing to be recognised ways of knowing (Marton and Säljö, 1976a; 1976b; Marton, 1981) and, as such, allows for understanding to be realised as a collective intellect which can change and evolve over time and place. This relates to the assertions of Hardin and Higgins (1996) and Wilson (2005) in terms of reality being 'man-made' and subject to change over time. In addition, it is contended that:

> "From a non-dualistic ontological perspective, there are not two worlds: a real world, objective world on the one hand, and a subjective world of mental representation on the other. There is only one world, a really existing world, which is expressed and understood in different ways; simultaneously objective and subjective. An experience is a relationship between objects and subjects encompassing both. The experience is as much an aspect of the object as it is of the subject" (Marton, 2000:105).

Ornek (2008) concurs with Marton (2000) in this regard, while Sjöström and Dahlgren (2002) add that phenomenography is an educational research approach that relies on individual and personal narratives to examine the individual and different perceptions of phenomena.

In critique, Webb (1997) suggests that there are inherent difficulties with the phenomenographical methodology and that these difficulties may lie in the interpretation of another person's experience. Viewed as a potential limitation, phenomenography aims to be descriptive, uses verbatim transcriptions of interviews to demonstrate the differences in the way phenomena are experienced and, as a result, demonstrates how individuals understand by using their own words (Marton, 1981; 1988; Marton *et al.*, 1997; Giorgi, 2000). The objective, as mentioned above, is to uncover the qualitatively different ways that a phenomenon is experienced and subsequently understood, because this is what affects what we do and how we behave in relation to that phenomenon (Marton, 1981; 1988; Marton *et al.*, 1997).

Ornek (2008) argues that there are advantages associated with the phenomenographic approach, because it probes into experience and the construction of knowledge. In addition, and more importantly, Ornek suggests that the process of phenomenographical research allows an awareness of contradictions in beliefs and reasoning to become apparent and facilitates re-thinking and behaviour following a period of reflection. Marton (1986) supports this claim, stating that a cautious description of the different ways that a phenomenon is thought about may help reveal ways in which a qualitative transition from one way of thinking to another may be facilitated.

The use of phenomenography in nurse education research may enable the understanding of phenomena such as lecturers' understanding of ESD and its relationship to nurse education from similar, as well as different, viewpoints, in addition to establishing meaning and relative truth in this area (Giorgi, 2000). Truth here is based on the interpretation of verbatim descriptions (Marton *et al.*, 1997). In addition, conception is believed to be influenced by two associated issues: the referential aspect which relates to the global and widely understood

side; and the structural aspect which demonstrates exact issues that have been distinguished, focused on and thought about (Marton and Pong, 2005).

Facilitated by a semi-structured interview, a particular strength of phenomenography is that it aids the process of looking at the shared human occurrence of phenomena in a qualitative way from different qualitative viewpoints (Trigwell and Prosser, 1996; Ornek, 2008). An individual semi-structured interview technique is considered to be the ideal way to gain the information needed to inform studies reliant on this approach (Ornek, 2008). Orgill (2002) and Harrell and Bradley (2009) also observe that this method of data collection allows a participant the opportunity to narrate and reflect on their experiences and arrive at an understanding about the meanings of their told experiences.

Disadvantages of semi-structured interviews include the implications of being face-to-face, which risks emotional influence and the participant saying what they feel the interviewer wants to hear (Snelgrove, 2014). In addition, comments and non-verbal cues may not be noted or interpreted correctly. The use of technology such as Skype, while useful in terms of time, travel, privacy and associated expenses, also carries the potential pitfall of technological breakdown (Oates, 2015). Qualitative approaches that use semi-structured interviews raise concerns about hubris and, to minimise this, require subsequent activities of critical reflection and reflexivity (Hammersley, 2008). The concept of hubris is viewed as pride, presumption and an over-rated self-belief (Oxford University Press, 2011). Hubris therefore jeopardises both the credibility and validity of the research process and its outcome (Cassidy, 2013).

3.5   Critical Reflection and Reflexivity

The use of the terms 'critical reflection' and 'reflexivity' in this research study warrants some attention in relation to both the researcher (me) and the participants. Colbourne and Sque (2004) acknowledge that reflexivity is a complex term and that isolating its meaning and application in qualitative research may be challenging. It can be said that critical reflection and reflexivity allow for the recognition of hubris (Cassidy, 2013). Critical reflection is transformative because it challenges preconceptions, values and beliefs by identifying an event, judging why it happened and assessing its impact followed by the determination of new actions, knowledge and a way forward (Brookfield, 1990).

The term 'reflexivity' is generally used to mean that the researcher must show transparency by continuous self-critique and examination, to demonstrate that their views and experiences have not influenced the process of the research (Furman, 2004). Etherington (2004) and Horsburgh (2003) consider that in research, reflexivity needs to be practised both in the process and of the process. They also recognise that this may occur at both personal and epistemological levels, which require self-awareness by the researcher in the moment of what is being studied, as well the factors that may affect the responses of participants, such as relationships to the researcher and the topic being studied.

Giddens (1976) also viewed personal reflexivity as self-awareness, considering it as being similar to reflection and facilitative to learning. Others, such as Colbourne and Sque (2004), consider that to be reflexive involves the activity of 'self-inspection' or, according to Carolan (2003), 'self-reflection'. There is also the suggestion that reflexivity is more critically active than reflection and that

these sit on a continuum, with reflection at one end and reflexivity at the other (Finlay, 2002; 2008). In relation to the research process, Dowling (2006) advocates the use of note-taking alongside interviewing, during and following interviews, to lessen the risk of bias and to facilitate the demonstration of reflexivity.

Epistemological reflexivity can be seen to facilitate further examination of the research question to determine its credibility (Kinsella and Whiteford, 2009). They add that reflexivity is much more interrogatory than straightforward reflection, because it is structured to facilitate teasing out the critical dimensions on which knowledge is based and accepted as truth. Reflexivity can therefore be declared as enabling the acknowledgement of the social construction of knowledge (*ibid.*).

The issue of reflection and reflexivity on the part of the participants is not without difficulties and challenges, because matters such as self-introspection and self-awareness are considered complex; caution and judgement are required to avoid bias and ethical dilemmas (Heath, 1998; Finlay, 2002; 2008).

3.6   Conclusion of Methodology

The above discussions related to the methodology describe, explain and justify the decision to utilise a qualitative methodology, namely phenomenography. The facilitation of shared meaning, limited inter-related different ways of understanding and the argued complementary role through first and second order perspectives being taken into account are believed to set this approach apart from phenomenology (Barnard *et al.*, 1999) and, as such, make it appropriate for this study of lecturers' understanding.

Observations related to this methodology also indicate that semi-structured interviews are not without disadvantages, but that they are the best way to gain data because they allow for reflection and reflexivity (Marton, 1986; Ornek, 2008). The features of reflection and reflexivity have been asserted as enabling the demonstration of transparency insofar as how the research question has been composed, in addition to minimising the influence of bias in its investigation (Horsburgh, 2003; Etherington, 2004; Furman, 2004).

It is argued that applied reflection and reflexivity may assist with the separation of preconceived assumptions from those of the participants interviewed (Dowling, 2006). The issues of reflection and reflexivity are not without challenges, and are considered complex (Finlay, 2002; 2008). In this study, it was considered that this was best facilitated during and after data collection, where an awareness of possible institutional subjectivity (due to shared workplace, status and employer, personal and political influences) may affect the credibility of the process.

In addition, the activity of critical reflection and reflexivity did not engage a pre-determined model (Heath, 1998; Finlay, 2002; 2008). Reflection and reflexivity were addressed during the collection of data with caution and sensitivity to the needs of the participants. Therefore, in addition to semi-structured interviews and adoption of the prescribed methodology to arrive at the outcome space, the activities of reflection and reflexivity were by and large focused on the activities of the researcher (me) to demonstrate and facilitate transparency and credibility of the process and outcome. This raises the issue of ethics and data collection, which will be addressed in the next chapter.

CHAPTER 4: ETHICS AND DATA COLLECTION

4.1   Introduction to Ethics and Data Collection

This chapter will address the issue of ethics that relate to the research process of this thesis. The ethical issues considered relate to credibility, consent and confidentiality. In addition, the issue of security of digital audio recordings and the associated security risks will be reviewed, followed by the issues related to the location and environment used to conduct the research. The final section of this chapter discusses the activity of data collection for the research process and describes, discusses and justifies the decisions made.

4.2   Ethics and Credibility

The issue of ethics and credibility permeates all activities related to the methodology from the outset, starting with obtaining permission (Parahoo, 2014).

Silverman (2011) recognises that the credibility of qualitative research is sometimes challenged by positivists because, in their view, reliability and validity cannot be adequately verified and addressed. He adds that qualitative researchers can include procedures which demonstrate credibility, trustworthiness and transparency. Shenton (2004) notes that qualitative researchers have preferred to change the terminology used to effectively relate to the issue. In this regard, Guba (1981) suggests using the following;

- 'credibility' rather than 'internal validity';
- 'transferability' rather than 'external validity' or 'generalisability';
- 'dependability' rather than 'reliability'; and

- 'confirmability' rather than 'objectivity'.

With this in mind, the role of reflexivity in this qualitative study was considered to be important and supported by the viewpoints of Dowling (2008) among others, as discussed in Chapter 3. In addition, the activity of reflexivity in this regard allows personal and epistemological ethical viewpoints to be demonstrated, along with clarity of activity and expression, which is believed to strengthen the credibility of the process that was followed (Finlay, 2002; Furman, 2004; Dowling, 2008; Finlay, 2008; Kinsella and Whiteford, 2009).

In line with the guidance and standards of the RCN (2009), NMC (2015) and UREC, the criteria of credibility adopted for this research process started with attaining initial institutional ethical permission clearance (see Appendix 1). In addition to following the organisation's ethical procedural process, my supervisors, line manager, the heads of the department and faculty were all included in discussions. Their inclusion was seen to facilitate transparency, promote overt research activity within the department and faculty, in addition to allowing access to potential and purposeful participants (RCN, 2009; NMC, 2015). These purposeful participants were senior lecturers engaged in active curriculum delivery and planning within the faculty, who were considered to be in an appropriate position to answer the research question (Shorten and Moorley, 2014). In addition and in relation to credibility, professional relationships required that care and attention was observed to address and eliminate a sense of coercion, bullying or intimidation in the invitation to participate in the research (Comstock, 2012; NMC, 2015).

A period of reflection during the process of data collection and at every stage of this research, which included re-reading the notes taken at each interview,

helped to raise awareness of issues relating to accuracy and addressed potential ethical issues as asserted by Shenton (2004) and Burton *et al.* (2008).

Supported by Dowling's (2006) opinions of reflexivity and to re-iterate continuing consent post-interview, each participant was offered the opportunity to read their transcribed interviews. This stance was viewed as allowing each participant continued opportunity to discontinue their participation in the study, in addition to verification of the transcribed interview (*ibid.*). In the event, only one participant accepted this invitation to review and verify their transcribed interview, and this was due to their imminent departure from the organisation. This participant wanted to clarify and add to their interview responses, so that their recollection and context of responses would be as unchanged as possible; however, no changes were actually made. The remaining nine participants ultimately did not re-read their transcripts and no changes were made. The issue of saturation in relation to sample size and data collected was considered, but found to be an unclear and contested area (Mason, 2010). Data collection was concluded.

In addition and in relation to verification, Oliver (2014) comments that asking participants to verify their transcribed responses may prove difficult because of the number of participants involved. However, this was found not to be problematic in this study, because only one participant asked to read, add and possibly make changes.

4.3   Ethics, Consent and Confidentiality

Written information that outlined the study and a consent/permission to participate form were attached to the email that invited potential participants within the faculty (see Appendix 2). In addition, participant packs were compiled and included two sets of consent forms and an information sheet about the study (see Appendix 2). This was undertaken to ensure that the issue of consent was addressed and reiterated, and to further ensure that the participant gave informed consent. In addition, these served as a continual reminder to each participant that their participation was voluntary and that under no circumstances would they be obliged to continue should they wish otherwise. This was further addressed during the study in person before the participant signed two consent forms; one for the researcher's record (me), and one for them to keep as further reference and a reminder that their involvement was confidential and voluntary (see Appendix 2). The purpose of providing written information pertaining to the study was to fully inform the participants, in addition to facilitating transparency of the study in view of professional relationships, with the further assurance that this study contained no hidden agenda (RCN, 2009; NMC, 2015).

Due to the professional relationships between the participants and to prevent any concerns related to information being shared, further assurance of confidentiality was reiterated to each participant. To further ensure and facilitate confidentiality of each participant's interview data, individual rather than group interviews were conducted. This allowed confidentiality in addition to privacy, with the freedom to talk and to be relaxed. Although the participants all knew each other as peers and working colleagues, each participant's contribution to this study was an individual private issue (Kaiser, 2009; NMC, 2015).

The nature of phenomenography requires the use of transcribed verbatim descriptions to be included in the presentation of the findings and analysis. This required using audio-recordings with subsequent transcription. The consent form therefore gave details of this, being reiterated in person at the time of the interview. To remove the possibility of anxiety due to being recorded, the participants were asked to suggest ways in which any anxiety might be alleviated and this was accommodated. As a result of this, the microphone was placed in a position that allowed effective recording without it being intrusive (Kaiser, 2009).

In addition, confidentiality was facilitated by the use of a code for all participants' transcriptions, rather than their names and locations. This code was not shared and was securely stored along with all related material. The participants were assured of this, both verbally in person and in the documentation information pack. It was believed that this might alleviate participants' possible concerns that information may be accessed by others and used in a prejudicial manner or any other way other than for this study at a later stage (Kaiser, 2009).

To ensure continued confidentiality, an external professional assistant was used to transcribe the recorded interviews. This assistant provided a professional service and their service was used on that basis. This assistant was not known to the organisation nor to the participants, and had no connection with anyone else (supervision team) involved in this study. These measures facilitated confidentiality, by preventing the transcribed material being discussed with anyone but the researcher (me) in terms of any issues relating to the interview transcription process (such as sound quality) (Kaiser, 2009).

4.4 Ethics and the Security of Digital Audio Recordings

Current recording devices record digitally. However, digital recording, while minimising the risks of loss and damage, carries risks in relation to security. Technology is accepted as part of society's development and has the advantage of facilitating the quick global communication of documents, audio and face-to-face interaction. Consideration was given as to how to maintain and retain the trust of the participants, in addition to ensuring the security of the interview recordings. Measures were taken to eliminate (at best) and minimise (at worst) the risks. The Institute of Chartered Accountants in England and Wales (ICAEW, 2011) recognise the issue of tension regarding the security of digital information in relation to social and economic situations. These tensions can and do result in the restriction of opportunities for development. The institute supports the actions practised in the process of this study, such as unshared and regular changes of password and restricted (sole use) access to the computers used (*ibid.*).

4.5 Ethics and Location

The interviews were conducted within the organisation where all participants and the researcher (me) were employed, within two campuses known to all. One campus has an open-plan working environment, but it was felt that this environment hindered privacy and confidentiality. Therefore, it was deemed appropriate to book a private consulting room. This was agreed and found to be mutually acceptable by all the participants concerned. In addition, interruptions such as telephones were prevented, because these private consulting rooms did not have telephones. At the other campus site, the office used was not open-plan in design, but shared between another employee and the researcher.

The interview dates agreed to by the participants at this particular campus site were dates when the office-sharing colleague was away and, with permission, the space was designated as private, which allowed the interview to maintain its privacy and confidentiality. Potential interruptions such as telephone calls were removed by diverting all calls to voicemail on both telephones. The interviews were conducted at the locations and times of each participant's choosing, to prevent disruption to a participant's other possible commitments and their working day (DiCicco-Bloom and Crabtree, 2006).

4.6   Data Collection

Ten participants (two males and eight females) volunteered and agreed to be interviewed following an email invitation for volunteers to participate. The email (see Appendix 2) was circulated to a total of thirty two colleagues, of whom eighteen satisfied the selection criteria. This email was sent to all pre-registration senior lecturers who, by way of workload, also contribute to post-registration modules, within the adult branch of the faculty. The invitation included details of the investigation. The sample size was viewed as adequate and appropriate for this study because of the nature of the information required. In addition, the methodology used required a semi-structured interview (Burton *et al.*, 2008; Watson *et al.*, 2008). It was also decided that the sample was judgemental and purposeful because of the participants' roles, remits and specific professional knowledge and experience (Shorten and Moorley, 2014). In addition, Shorten and Moorley assert that this stance adds credibility because of the participants' unique knowledge of the phenomena.

In this regard, semi-structured interviews were used and the order of questioning using a schedule was not uniform apart from the opening question which was used to set the scene and facilitate a focus. Barriball and While

(1994) and Gray (2009) agree that this helps the interviews (albeit semi-structured) to facilitate the thread. Cohen and Crabtree (2006) describe a semi-structured interview as one where the following are observed:

- ➤ • The interviewer and participant engage in a formal interview. A reminder of the interview's formality is part of a formal introduction before specific questions are asked.

- ➤ • The interviewer designs and uses an interview guide. This helps to focus on the purpose of the interview, although the order of questioning is not fixed.

This was allowed by keeping an open initial question; in the case of Participant 1: *"What do you understand by education for sustainable development in terms of nurse education, or at all?"*. The interviewer uses the guide, but is allowed to follow topical paths in the dialogue and probe for clarification (Carter and Little, 2007). The guide used included the following questions:

1. How would you describe your initial understanding of ESD?
2. Where did you first come across the term?
3. What values do you associate with the term?
4. How have you experienced ESD?
5. How have your current and initial understandings changed over time, if at all?
6. How would you now describe your understanding of ESD?
7. How relevant do you believe ESD is to nurse education?
8. What nursing issues do you consider alongside ESD?
9. How do you use this concept in your practice?
10. How explicit are the terms ESD within your

(a)   Module Guide?

(b)   Teaching Plan?

(c)   Delivery Notes?

11.   How would you consider using ESD explicitly?

The guide was found to be useful because it helped to maintain focus, while not leading or directing the participants' answers and dialogue and, at the same time, allowed the data to emerge in a relaxed, free and uninhibited manner. Barnard *et al.* (1999) also support this stance and point out that interviews need to focus on the interview questions, be focused, descriptive and sensitive to individual viewpoints and, in the end, be a positive experience. The assertions of Barnard *et al.* (*ibid.*) are based on the beliefs of Kvale (1996; 2007) who also affirms that interviews must not be one-sided.

The participants were encouraged to express their views and to be relaxed. This is recommended because it allows participants an opportunity to articulate their opinions directly and to reflect and, at the same time, enables clarification of their responses (Sjöström and Dahlgren, 2002; Cohen *et al.*, 2007; 2011). Along with the actual interview, notes were made to facilitate contextualisation of the transcript at a later stage and to allow for reflection and reflexivity, as described earlier.

The participants were motivated by a professional and personal interest in the subject matter, as well as the research investigation process. Each interview was approximately one hour and fifteen minutes in duration, only ending when it was clear that the dialogue had waned with the agreement of each participant (i.e. saturation had been reached) (Pope *et al.*, 2000; Mason, 2010).

In line with the ethical considerations of this study, which were described earlier, the verbatim transcribed interviews were coded to maintain anonymity of the respondents. In addition, all participants were given an outline of the research enquiry beforehand (see Appendix 2), so that they could think about the issues before the interview. This was achieved by email and followed through as agreed at the interview. This is considered by Patton (2002) to be advantageous to the semi-structured interview approach, because it facilitates comprehension of the information sought and facilitates data collection. The tape recorder's microphone, as indicated earlier, was also positioned in such a way as to not distract the participants by making them feel self-conscious or uncomfortable (Barnard *et al.*, 1999; Kvale, 2007; Kaiser, 2009).

4.7   Critical Reflection on Ethics and Data Collection

As seen in Chapter 3, critical reflection is not a fixed entity and can be used for development and to demonstrate transparency, is personally meaningful and can take on various forms (Morrow, 2009). Whilst not using a pre-determined model for reflection (Finlay, 2008; Morrow, 2009), critical reflection was engaged by asking 'what if?' to self-assess the ethical and practical decisions made and to move forward in relation to:

- credibility;
- consent;
- confidentiality;
- security of digital audio recordings; and
- location.

Credibility: the size of the sample may be considered an issue in terms of the data collected and saturation. However, Pope *et al.* (2000) observe that

contrary to the opinions of some, qualitative research may produce immense and valuable data via transcribed interviews and notes taken. Baker and Edwards (2012), who sought a consensus of expert opinion, agree with Pope *et al.* (2000) and affirm that it is the quality of the information gathered that remains paramount with qualitative methodologies. Therefore, notwithstanding the issues related to saturation which are contested and unclear (Mason, 2010), data collection was completed. However, what if the transcriptions were inaccurate? The field notes may assist, but what if these notes were biased and influenced by my beliefs? Verification of transcribed interviews, as suggested by Dowling (2006), can minimise this. The participants were offered this opportunity, but all but one declined. To further demonstrate and add to transparency, this activity could have been added to the agreed conditions set out on the consent form (see Appendix 2). Oliver's (2014) comments regarding the difficulty associated with verification were not an issue because of the size of the cohort. In addition, there was only one request to verify the transcription, and ultimately no changes were made, as described earlier (see Section 4.2).

The use of a guide was useful for the semi-structured interview. The guide (see Appendix 3) helped me to remain focused and avoided leading the participants' responses, while at the same time allowing the data to emerge in a relaxed, free and uninhibited manner which, in the end, helped to make the interview process a positive experience (Barnard *et al.*, 1999; Kvale, 2007).

Consent: The information sheet and consent forms (see Appendix 2) provided authenticity (Fossey *et al.*, 2002). However, in relation to the participants being given the opportunity to re-read and change the transcripts, a clause or tick box could have been added to indicate their decision. This will be considered in future. Crow *et al.* (2006) acknowledge the challenges presented by consent

forms and note that providing participants with information about the study is imperative.

Confidentiality: I reflected on the professional code (NMC, 2015) and the coding used for confidentiality in this study. I felt at the time that my initial use of letters as coding allowed me to view each participant as an individual and, in addition to my notes taken at the time of the interviews, helped to put responses into context. However, further reflection by asking 'what if' allowed me to appreciate the frailty of that coding in terms of confidentiality (rightly or wrongly) and I subsequently changed it to a numbering system to strengthen confidentiality. I realised that anyone within the faculty who read this study would not have any difficulty identifying the participants from the initial letter-based coding system. This consideration included the participants themselves who may wish to read this study. Ultimately, I alone knew the identity and location of the participants and the order sequence of the interviews. The participants themselves did not know how this numbering related to their individual interviews, which helped to preserve anonymity and confidentiality.

Security of digital audio recordings: I was satisfied that as much as possible was done to secure the audio recordings, but the issue of passwords to maintain security warranted attention. This is because, as well as working from my personal computer, I also worked from home, in addition to communicating with the professional transcriber. Again, I asked myself, in the event of a technological breakdown, attack or damage; 'what if?'. Boonkrong (2012) acknowledges the challenges, and stresses the issues of human factors in relation to privacy, size and complexity to maintain security. In future, I would consider sending myself files of the relevant documentation for additional security.

Location: The decision to use areas that were private and less likely to incur inconvenience or interruptions was made in an effort to ensure confidentiality and encourage consent, as well as ensuring comfort for the participant. The assertions of DiCicco-Bloom and Crabtree (2006) support my decision, in addition to emphasising the importance of participant comfort and rapport. In terms of using my shared office - what if my colleague changed their mind and decided not to work from home? In future I would book a private meeting room with no telephone as a back-up plan.

CHAPTER 5: FINDINGS AND DATA ANALYSIS

5.1 Introduction to Findings and Data Analysis

In this chapter, the processes that led to the findings and data analysis of this thesis will be addressed. This will be followed by a discussion of the findings, which will also be related to the literature reviewed, pedagogical approaches and, finally, to this thesis' contribution to nurse education knowledge and practice.

5.2 The Findings

Addressing the ethical considerations and data collection process described in Chapter 4 led to the findings being considered for analysis, presentation and subsequent discussion.

The interviews, which are essential to the findings, were transcribed verbatim, coded and read several times for analysis and later reporting. They were continually examined for accuracy throughout and participants were asked for their comments to enhance credibility (Sjöström and Dahlgren, 2002; Dowling, 2006; Burton *et al.*, 2008; Silverman, 2011).

The transcribed data, which were supported by written notes taken during the interviews, were intended to serve as descriptive rather than illustrative data during the process of analysis. Descriptive data, in this sense, relate to the verbatim descriptions of the participants being used for analysis. The verbatim descriptions in their entirety and supported by my notes ensured accuracy, insofar as this is possible (Marton, 1988; Giorgi, 2000). Illustrative data, on the other hand, relates to samples of data that may not be used in their entirety and

may give a 'flavour' of what was said rather than what was actually said (*ibid.*). The verbatim descriptions used in this study informed later decisions on how to group any emerging themes. In addition, the supporting notes helped to capture the context of what was described. Sin (2010) recognises the inadequacy of transcribed data alone and supports note taking for verification during the interview and for contextual clarity.

Owing to the volume of transcribed interview data and the verbatim representations, only a sample of the responses will be shown in this analysis (Oliver, 2014). To deal with this issue, tables and an appendix (see Appendix 4) have been used as appropriate. The word limit of this thesis also restricts the volume of descriptive data used to represent the findings. Therefore, only verbatim descriptions considered to relate strongly to the research question are used.

5.2.1 Critical Reflection on Data Management

What was considered to relate strongly to the concept of ESD and nurse education may be viewed as biased (Dowling, 2008). Therefore, in an attempt to minimise this, I asked myself the following questions before starting the analysis of the findings:

- Will the subsequent analysis of these responses represent the data fairly in relation to the research question?
- Could the research question have been asked differently?
- Were the participants led or their responses influenced?
- Do the written notes reflect the participants' responses accurately?
- Could the responses be interpreted differently and, if so, how?
- Do the descriptive responses need further verification?

I also considered the use of a computer software package (such as NVivo) to manage and analyse the collected material, but felt that I needed to immerse myself in the data and collated notes. This is because, aided by critical reflection and reflexivity, I wanted to be in a position to demonstrate my activity in relation to transparency rather than divorce myself from the process (Snelgrove, 2014). D'Andrea *et al.* (2011) recognise the complexity of qualitative data analysis and the benefits of consistency, time management and accuracy that software enable, but neither negates a manual approach and the benefits of critical reflection and reflexivity. In future studies, computer software to assist data management and analysis may be used.

5.3   Data Analysis

The aim of using the methodological approach employed in this research study was to find the various limited different ways in which the phenomenon of ESD is understood, relevant and meaningful to senior lecturers in and affecting the pre-registration adult nursing programme within higher education. In so doing, it is anticipated that this information will add to the body of nurse education, knowledge and practice. The senior lecturers, who were the participants in this study, also contribute to and lead in the creation and delivery of pre- and post-registration nursing modules of study.

Ritchie and Lewis (2003) note that there is no strict format required for the representation of qualitative data, and here an appendix is used for reference (see Appendix 4). This appendix of verbatim text, however, does not include gestures by me or the participant. Furthermore, the appendix does not represent the initial reading, followed by re-reading of texts on more than one

occasion. The appendix contains examples of extracts from the transcribed interviews (see Appendix 4) to represent the phases of the analysis.

Ornek (2008) suggests that the analytical process using a phenomenographical approach requires a number of steps/phases to be addressed, namely:

- familiarisation;
- compilation;
- condensation;
- classification and grouping;
- preliminary comparison of groups/categories;
- naming of categories; and
- contrastive comparison of each category.

Using the above guide and structure, all sets of transcripts were read several times and compared to the recordings to enable familiarisation.

5.3.1 Familiarisation

The checking of the transcripts and listening to the recordings several times allowed further scrutiny of the transcribed data and notes. This was particularly useful because of individual accents and possible misunderstanding. I felt that any errors would need to be clarified and corrected with the participant. However, this was not necessary because the verbatim transcribed scripts were accurate. There were occasions when a participant's response was unclear due to speech and sound quality of the recording. On these few occasions, the additional notes facilitated context and clarity. Re-reading and listening to the recordings several times, individually and then as a group, whilst time-consuming, helped to initially group and re-group extracts of the responses.

This stage of familiarisation also allowed recognition of words that were used repeatedly by one or more participant to describe understandings. This allowed the recognition of similarities as well as differences. These repeated words were also compared with the notes to corroborate their contextual meanings. Where the contextual meaning was questionable, I checked with the participant. This part of the process was time-consuming and at times 'messy', but once complete a picture started to emerge.

The familiarisation stage could be called 'pre-coding' (Saldanã, 2013). This stage also involved continued reflection on the process that had led to this point in the study. Continued reflection helped with 'pre-coding', and facilitated a degree of distance and objectivity. At times this stage was like reading someone else's narrative and, at times, like watching a play unfold at a distance.

5.3.2 Compilation

Familiarisation was followed by a compilation phase (see Appendix 4), whereby the participants' answers were gathered to extract what were considered to be the essential elements in their answers to the questions, obtained at the time of the interview. At this point, I separated their initial responses, followed by adding these to their subsequent responses. Their initial responses appeared to centre on the phenomenon of ESD and perceived conception of it, followed by their considerations of its relevance to nurse education. The initial response was seen as the first order perspective, which on its own does not allow deeper meaning to be revealed. By adding their subsequent responses, themes started to emerge in terms of their understanding and, in particular, its relevance to nurse education. Table 5.1 presents a sample that represents the initial verbatim responses of each participant to the initial question, and their consideration of its relevance to nurse education.

Table 5.1: Initial Verbatim Viewpoints of Participants in Relation to ESD and their Understanding of it in Relation to Nurse Education

INTERVIEWER'S INITIAL QUESTION	PARTICIPANTS' INITIAL ANSWER
"What do you understand by education for sustainable development in terms of nurse education?"	Participant 1: "I guess that in terms of nursing, then I'm not quite so clear about where that would lie… but I think we're not very good about thinking about the future generations and what the effect of what we do will lumber our children with and it seems to me that there is an element missing about what we do has importance not only for people at the relevant time but also 10, 15, 20, 30 years down the line. I don't think that is - we never talk about that do we about what the effects of doing things now is going to happen 50 years on…"
	Participant 2: "It's not something that I'd actually sort of thought about in healthcare… Well for something to be sustainable it's got to be robust and test the time really to ensure its relevance. I suppose from a student nurse perspective and we're equally looking at the qualified nurse that's coming out at the end that this person is a safe practitioner that's got a certain amount of knowledge base behind them…"
	Participant 3: "I didn't have an initial understanding that there was sustainability in terms of education… That's why at times you wonder whether the resources we are utilising to prepare that number of students, whether it is worth it in the end. Because if you are just putting them in little little boxes that's where they will be. They are not versatile. They can't be versatile…"
	Participant 4: "Yes, and I cannot tell you how…"
	Participant 5: "It's actually very limited to be honest…"
	Participant 6: "I hope it will be helpful because to be totally honest I haven't really thought about it enough in terms of what it means… Well I think the thing is that what we try to do is make it relevant to everything else that they are learning. We try to make it relevant to their practice, their everyday practice…"
	Participant 7: "What I think you are asking about, is how we help nurses in this case to develop…"
	Participant 8: "To be completely honest, it's been a while since I looked at it [information sheet] and thought about it, so the minimum I suppose…"
	Participant 9: "…we cannot undertake that role unless the curriculum offers us the opportunity to undertake the role so I can't really diverge… I think in the end people have got to want to see is it relevant to care, is it going to benefit patients… education for sustainable development from the perspective of nurse education for me is about educating our nurses so that they are able to provide patient centred care which benefits not only the patient…"

	Participant 10: "I think understanding is to an extent sketchy when you put the two things together… I think it is absolutely relevant to everything which would include all forms of education and of course nurse education which is what we're interested in…"

Overall, the initial understanding (first order perspective) according to the participants was that they did not think that they understood the concept of ESD. The participants had not considered the concept in terms of nurse education, the curriculum and its delivery.

However, subsequent interviewing and examination of the verbatim transcriptions revealed further individual, as well as shared understandings that related to the issue of relevance. In addition and from a second order perspective, personal, professional and emotional experiences in relation to the research topic and interview question appeared to be used to answer and to develop the dialogue of the interview.

The compilation phase (see Appendix 4) allowed the emergent themes to be labelled, following some reflection. At this point of reflection, I re-read the samples of descriptions to discern the similarities and, more importantly, the differences in participants' understanding. Within the transcribed text, I recognised a number of issues/themes emerging. Some issues bore similarities despite differences in the ways these were expressed in response to the initial question. The emerging themes were compiled as follows:

- responsibility;
- globalisation;
- compassion and care systems;
- social justice;
- allocation of resources;
- family life and demographics/ageing;

- diversity;

- behaviour models;

- professional leadership; and

- recruitment.

Table 5.2 demonstrates examples of initial emerging themes, using verbatim transcribed descriptions of the understanding of ESD, in relation to nurse education, of each participant subsequent to their initial answer.

Table 5.2: Initial Emerging Themes Using
Verbatim Transcribed Descriptions

RESPONSE FOLLOWING INITIAL RESPONSE AND HAVING THOUGHT ABOUT THE QUESTION
Responsibility   Participant 1: "I also know that it's very important that nursing and health services in general take it on board as there is no reason why we should be absolved from any responsibility."
Professional Leadership   Participant 2: "Well I suppose it's looking at the way forward of how nursing is going to progress into the sort of 21st century…"
Globalisation and Care Systems   Participant 3: "I think it is that education that will equip the individual to be able to function globally under any condition, having the necessary expertise to adapt…"
Care Systems and Professional Leadership and Recruitment   Participant 4: "The thing about sustainability and fairness and all of that stuff about having gates wide enough so that people can have a chance that might have missed out on education…"
Allocation of Resources and Behaviour Models in Education   Participant 5: "In general I would imagine it's ensuring the future of education whether it is from resources, through the materials we use, even maybe the actual lectures that we give. I suppose it's about making sure that some things continues into the future, in a nutshell…"
Globalisation and Care Systems and Responsibility   Participant 6: "It depends on what you mean by sustainable development. Are we talking about this in a global sense of within the nation as part of sustainable development within the nation or are we talking about it sort of strictly within the health field? Cause it's a very broad term isn't it? … So we're talking perhaps also about the sort of wider concepts like health promotion? … Taking responsibility for health…"

Professional Development and Behaviour Models
Participant 7: "…is how we help nurses in this case to develop, so that they themselves can develop in order that they can sustain themselves within nursing, so as nurses ever changing they can be adaptive and in a sense they are sustaining themselves…"
Professional Leadership and Behaviour Models
Participant 8: "The sustainable development it obviously means for development that is long-term rather than short-term education… I guess things that that would stay with the student for a longer period of time. I suppose the gold standard would be for the rest of their career…"
Professional Leadership and Responsibility and Behaviour Models and Globalisation
Participant 9: "… it is about us as users of the planet, as people who are living on Earth as we know it, it is about us having the ability and being able to look after our environment so that it is able to maintain itself for the future generation, so it is about us having the skills, the values, the ethics, the beliefs to maintain and look after … as professionals who are caring for other people, we've got two roles. One we've got to make sure that we maintain the environment I suppose ourselves, but two as a nurse it is our job to help our clients to if you like look after the environment but also to provide support for our clients for some of the causes of the problems…"
Responsibility and Professional Leadership
Participant 10: "I see education in sustainable development is in education that is ongoing and protected and developed and etc so that it becomes a thing that goes for the whole of your life… sustainability in nurse education for me is again education that has meaning that has relevance that has value and is ongoing and not just for the sake of it..."

At this stage it was not clear whether there was a hierarchy of importance in terms of these senior lecturers' understanding of the concepts of ESD and its relationship with nurse education. What was apparent was that both as individuals and as a group, understanding was on a personal, professional and emotional level. In addition to this, it appeared that the themes were interconnected. The emotional level of understanding is particularly interesting because of the assertions of Mayer *et al.* (2012) in relation to emotional intelligence, Hummel's (1999) interpretation of Aristotle's viewpoints of education and the RCN's (2003) descriptions in relation to the role of the nurse.

5.3.2.1   Emotional Level

This issue was found to be an important dimension and influential in terms of lecturers' understanding and their roles. In addition, emotional intelligence is believed to allow and enable effectiveness of behaviour. Mayer *et al.* (2012) assert that emotional intelligence enables empathy and also enriches understanding of phenomena, thereby making its engagement meaningful. Samples of this emotional level are represented in Table 5.3.

Table 5.3: Emotional Level Examples

INTERVIEWER	INTERVIEWEE EMOTIONAL RESPONSE
"But is that sustainable?" "It is challenging and is it sustainable the way things are to deal with those issues and educate the staff with regards to those issues…"	Participant 2: "I'm just glad I'm not the person having to make that particular decision, because in a way it's an element of playing God to it but if you look back sort of like 10/20 years on sort of medical conditions that people had then it's not a case looking now today. It wasn't a playing God situation and that we have been able to sort of like progress patients and make them comfortable and you know they are able to give something to society…". "It can be very difficult because in a way we're having to educate the staff on everything, anything and everything and in a way not that you can retain only a certain amount of expertise and things but we then get into the danger of right you go to the…".
"How would you go about doing that?" "Not you personally? But you as in us?"	Participant 3: "It requires, not me personally…". "They produce a template for nurse education. So they need to have a change of mind-set. They need to begin to think about the calibre of nurses that they are producing… Because sustainability is also about costs. It's about costs… Because that's what survival is about isn't it".
"…what they thought was taught and learnt is now questioned and challenged… they remember what you said…"	Participant 4: "Well the things is what can you do in a situation where somebody doesn't go, you've got to do what I say…". "I think one of the things is that people have to recognise propaganda…". "You know what is the purpose of propaganda. It's to win you over so what is it that is being left out?… And not just the side effects although there's that…" "Well, it's enjoying having my brain exercised…"

"So what may happen anyway…"	Participant 5: "I think there is this kind of idea behind that we have to tell some people what we want them to do and we have to let a few people in and keep the rest because we need to keep the balance of society so that is me being cynical…". "I am not sure if that is always what the powers that be want…". "But then from a cynical point of view, aren't some governments etc, even the big conglomerates like...".
"And extending someone's life may not always be sustainable for all…"	Participant 6: "There are certain drugs that although prolong individuals' lives but they are expensive and if you invest in those you may have to take money from other areas and that's…". "Absolutely. I can see in the future we've got a lot of exciting technology potentially, coming on board like, genetic therapy, stem cell research and things like pharmacogenetics which will tailor medications to individual patients…". "All of that will save huge amounts of money but it is quite difficult to quantify…".
"How do you see that fitting in with your view and your perspective of education for sustainable development?"	Participant 7: "I think in the ideal world it should actually lead to them becoming more aware on a whole of the important elements of sustaining a society or the sustaining of urgent care but are not. What I am honestly not sure about is when…". "…but I actually don't think we do it very well at all…".
	Participant 8: "If you can actually experience the issue and experience the knowledge then it is going to stay with you…". "I don't know the psychology behind it, but it becomes more part of you, doesn't it. It becomes more part of your… breadth of knowledge…".
"Why?"	Participant 9: "It probably is implied, but of course I suspect that if we were to go and start doing a session on sustainable development with our nurses they'd probably be asking me, what has this got to do with nursing?" "Well I suspect they see that sort of issue as issues that activists deal with. Environmentalists, Greenpeace, you know people like that. They do not see themselves as people who will address those sorts of issues… I think there lies the core of the problem isn't it, that they don't see themselves in that role and they don't see themselves…".
"Give me an example if you could"	Participant 10: "Well, I think sometimes we have a system of education for education sake which doesn't necessarily really actually improve anything. And education has to improve and if you improve something then that becomes sustainable in itself…". "As you know I am not a great believer in having policies and doctrines for the sake of having policies and doctrines and I fear that they waste a huge amount of time and a huge amount of paper…".

5.3.3 Condensation

The compilation phase was followed by the condensation phase, which required further compressing down of data to arrive at the participants' understandings and meanings. At this stage the compiled extracts were compared and scrutinised along with the reference notes to allow further contextualisation of the interview responses with the participants' verbatim transcribed texts. This reading, although time-consuming, was more specific and around portions of verbatim transcribed texts that had already been read. This condensation phase resulted in clearer representations of the participants' relayed understandings. In addition, this phase of the analysis allowed the similarities and differences of their understandings to be demonstrated further and, in particular, the relationship and interconnectedness between the themes of:

- 'responsibility', related to all themes;
- 'globalisation' (internationalisation), related mainly to compassion, care systems, allocation of resources, behaviour models and practice, social justice, family life, demographics, recruitment and ageing; and
- 'professional leadership', related mainly to the allocation of resources, managing patient care, care systems, behaviour models, practice and social justice.

At this point thematic groups were primarily compared. It was noted that these themes were interconnected on a personal, professional and emotional level as points of structure to the research question, with the issue of relevance explicitly and implicitly running through each theme. It was also noted that the findings were emerging like a tree rather than a hierarchy, with each theme equally important; thematic branches, experiential deep roots and a trunk that stabilised and fed the roots and branches personally, professionally and emotionally. This

phase culminated in the naming of categories phase and finally, contrastive comparison of each category, which is the outcome space.

5.3.4   Naming of Categories

While each participant demonstrated their understanding in similar and/or different ways in relation to responsibility, globalisation and professional leadership, within these categories the participants made their understanding known in distinctively different ways, as discussed below.

5.3.4.1   Responsibility Category

> *"…is if we're caring, if I have a right not to risk my life coming to work, but do I not also have a duty and a right to protect my fellow nurse and again sometimes we don't teach them that…"* (Participant 7).

This participant made reference to self, social justice, duty of care to others, in addition to the professional's role in terms of education. There is an emotional element within this response in addition to the need for relevance.

> *"…you have your influence in the students. You have a sense of responsibility here. If you think that what I am teaching is rubbish why have you not told me why have you not come and discussed it so that we can then build something more effective…"* (Participant 6).

This participant also appears to make reference not only to their self and their professional role in terms of duty, but also the student's shared responsibility in terms of feedback and empowerment. In terms of the understanding of the concept of ESD, this participant makes the point of a shared responsibility, rather than the sole responsibility being that of the educator. This relates to

empowerment and relevance. The issue of emotion is also tied into this response with the words 'influence', 'sense' and 'why'.

Inasmuch as the above examples express understandings in different ways, there are significant elements of similarity, but the issue of empowerment stands out in the latter in relation to responsibility.

Responsibility on personal and professional levels appears to be a value held by each participant in relation to their understanding of ESD in this study. This finding is in line with the study conducted by Nikel (2007), who found that understanding ESD correlated with trainee teachers' viewpoints of their professional role, insofar as taking and having responsibility was concerned. In addition, the ascribing of responsibility to oneself features within the descriptions. While Nikel's trainee teachers were not nurse lecturers, the issue of responsibility appears to be important among the senior lecturers interviewed and as seen within their various descriptions (see Appendix 4).

It can be asserted that the NMC's Code (2008; 2015) is clear in relation to its expectation of the professional nurse in relation to the concept of 'responsibility' (although only stated once in terms of indemnity insurance within the entire Code), among other duties for which the nurse is accountable. The scant explicit use of the word, like the scarce use of the term 'ESD' within such influential nursing literature, may be a reason for differing interpretations and practice in relation to responsibility.

The concept of responsibility within the literature reviewed was defined in different ways. Responsibility may be seen as to take control and/or by delegation (Fleurbaey, 1995). In this study, it was found that the participants referred to responsibility on these two fronts. Responsibility by control sees the

concept as being within the individual's domain of power and volition and, as such, it is personal. Responsibility by delegation, on the other hand, is determined by society and as a result of professional standing. In the case of the nurse, responsibility by delegation is therefore determined by the NMC Code and associated standards (NMC, 2008; 2010; 2015). Personal responsibility implies a choice as to whether or not to follow egalitarian moral and legal judgements. The line of demarcation between responsibility by control or by delegation for the nurse is difficult to draw because, for example, the requirement to "demonstrate a personal and professional commitment…" and "…uphold the reputation of your profession at all times" (NMC, 2008:7, paragraphs 48 and 61) implies that where you are recognised as a nurse the issue of responsibility is a combination of personal and professional and, as such, responsibility by control as well as by delegation. Responsibility and accountability are concepts that are sometimes used in the same sentence and confused as meaning the same act of behaviour (Fleurbaey, 1995).

Bivins (2006) suggests that responsibility is one of many moral acts that are developed and assumed as being an individual's act of behaviour based on maturity, citizenship and autonomy underpinned by rationality. Rationality, according to Bivins, assumes the ability to reason and make decisions between what is right and what is wrong. The role and functions of the nurse include this assumption of responsibility, but in the case of the nurse they are also determined by the regulating professional body, the NMC (NMC, 2015). The participants were found in this study to describe their understanding of the concept of ESD in a similar way. The participants viewed responsibility as a professional requisite on two levels: as a registered nurse and as a senior lecturer. The participants also viewed responsibility as a requisite on a personal level. In addition, the participants viewed responsibility as a complex concern. This is because professional and personal responsibility implies accountability,

particularly where you are recognised as being a nurse. This, according to the participants, relates to leadership, in addition to the need to be functionally relevant at a national and international level.

5.3.4.2   Globalisation Category

The category of globalisation also demonstrates similarities as well as differences. The quintessential and unique differences were quite marked, and examples of these are as follows:

> *"…and I think it's educating people as to sort of minimise the effect of some of the harmful effects of environmental change, but also I think it should be about educating people to deal with the effects…"* (Participant 1).

> *"I mean if I'm honest we don't address those issues and I think they are lurking there, but not perhaps fully. I mean I think there are lots of areas of where people are looked after which are fairly important. I mean I don't know whether it's whether environmentally friendly to have lots of people nursed in their homes or to have people nursed…"* (Participant 1).

This participant relates to the management of the environment as part of an educational role, personal and professional responsibility for practical as well as ethical reasons. There is an emotional component in the use of *"if I'm honest"*. This is confirmed by my notes taken at the time of the interview, which indicate that at the time this statement was made the participant also used their right hand to beat their chest, nodded their head as if to further justify the statement, and pursed their lips to emphasise further their sincerity and conviction in relation to the statement.

> *"…it is about us having the ability and being able to look after our environment so that it is able to maintain itself for the future generation, so it is about us having the skills, the values, the ethics, the beliefs to maintain and look after our environment for*

the new generation or for the planet to be as long it…" (Participant 9).

"One we've got to make sure that we maintain the environment I suppose ourselves but two as a nurse it is our job to help our clients to, if you like, look after the environment, but also to provide support for our clients for some of the causes of the problems that we have in the planet. So for example…" (Participant 9).

This participant concurs strongly with Participant 1 and also relates to ethical applications, but actually uses the word 'ethics' in relation to the management of the environment.

"…you know if you say go back and you look at this from an environmental point of view, it is all very well for us, we have had our industrial revolution, we wrecked the world 200 years ago and now we're terribly critical of the…" (Participant 10).

"…it should be, well you know this is how we have managed to improve environmental factors and it might help. And that would be helping people in the world that…" (Participant 10).

This participant seems to reflect on self and perceived society's behaviour emotionally, firstly from an historical perspective to make sense of ESD and secondly what is required now in relation to the environment, not just at a national level but also at an international level.

In relation to globalisation, Participant 9, also referred to the issue of poverty in particular by commenting:

"Poverty is a typical issue that we have in our world at the moment and the nurse's role in that sense is central in terms of helping to alleviate poverty in whatever context. So whether it is about helping people to eat healthily, helping people to look after their environment…" (Participant 9).

This participant also makes the point about environment in relation to the environment's effects on an individual's economic ability to eat, then goes on to add:

> *"I suppose that is one example. I mean the other would be climate change and that impact is huge…"* (Participant 9).

This participant then goes on to emphasise the relationship between effects of climate change and the environment and the role of the nurse. The specific issue of climate change was also made by Participant 7:

> *"Climate change is a part of it because one thing affects the other thing affects the other thing and initially the first time I heard the term I thought of things like environmental. But environmental issues also affect nursing…"* (Participant 7).

This participant articulates understanding in relation to the effects of climate change as within the remit of nursing and therefore associated with nurse education. This viewpoint is in agreement with the assertions of Goodman and East (2014). This participant also explicitly articulates the interconnections: "*…one thing affects the other thing affects the other thing…*" (Participant 7).

In addition, and in relation to globalisation and descriptions which are considered different from the above and separate from issues of the environment and climate change, comments were made by Participant 3:

> *"It should be that education that is not just focused to a local need but it's education that can be transferred, that's transferable wherever the person finds themselves instead of this is a UK education but it is an education that can meet the needs of anybody in the world…"* (Participant 3).

This description is in keeping with the Oxford Learners Dictionary's (2014) definition of the term 'globalisation'. Participant 7 continues:

> *"I would suggest an opportunity to work overseas would be a magnificent contribution towards their training. I think one of the problems we have is that many of the nurses who come into training live in the developed world, have no concept of outside the world…"* (Participant 7).

The understanding of ESD as pertaining to preparing the current professional workforce to operate in environments other than that of the host is shared by Heller *et al.* (2000). Heller *et al.* argue strongly that nurse educators need to realise that technology and the global movement of people brings with it the challenges of diversity and changing needs and, as such, the nursing profession and the education of nurses needs to be relevant in order to be sustainable. Baumann and Blythe (2008) also recognise that there has been an increased requirement for higher education to recognise global issues in relation to nursing worldwide and, moreover, they assert the need for worldwide common competencies that would unify nurse education. Baumann and Blythe assert that in terms of globalisation and changing demographics, it has become incumbent on the profession to apply itself to work towards diverse cultural relevance for students, educators and service users. This challenge is perceived by the participants, who recognise the need to apply relevance in terms of critical thinking, reasoning and decision-making, as suggested by Participant 7. The need to address issues of globalisation is further emphasised by Participant 3 in relation to responsibility, in the statement:

> *"…my students should become sensitised to the global issues that people are facing today because the world is becoming smaller. So as the world is getting smaller, we will be nursing people from all walks of life and also even at your doorstep there are global challenges that you face…"* (Participant 3).

Participant 3 also describes gains for nurse education's relevance to a current diverse society in a "*world* [that is] …*getting smaller…*" by stating:

"How can you begin to look at other people if we have not recognised the ones that are at your doorstep…" (Participant 3).

Globalisation is viewed in relation to responsibility, both personal and professional, by control and delegation. Globalisation is described by the Oxford English Dictionary (2011) as the process by which organisations develop international influence or operate on an international level. There are other definitions of globalisation which relate to worldviews and individual standpoints. Al-Rodhan and Stoudman (2006) acknowledge this and suggest that globalisation is not a singular concept but one that evolves over time and may be individually as well as culturally constructed and construed. Others view globalisation as a process that incorporates dependence, domination along with perceived economic, social and political retardation and/or progress (*ibid.*), while others view globalisation as a process that facilitates communication and interaction among and across peoples with mutual benefits. In agreement with Al-Rodhan and Stoudman (*ibid.*), it could be said that in relation to the participants' responses, the definition of globalisation is complex and can be seen as all-encompassing of individuality, worldview, culture, diversity, society, economics, politics and psychology, with winners, losers and more. The issues of common concern that emerged from the participants and culminated in the globalisation category of description also related to areas described as compassion and care systems, social justice, and allocation of resources, family life, demographics and ageing, in addition to cultural diversity.

In relation to globalisation, the aforementioned participants shared the understanding that nurse education in relation to ESD needed to prepare the student nurse for working within the host society, with the additional ability to be relevant as a professional on an international playing field.

Globalisation is not differentiated from internationalisation and it is not clear whether the above participants recognised a difference between the two terms. Allen and Ogilvie (2004), however, recognise the difference and believe that internationalisation refers to universities' strategic planning initiatives that are related to economics and international markets in terms of service users. The participants' understandings when asked "How do you see that whole issue of globalisation in terms of nurse education?" was:

> *"I think it is there in a way because in our interviews when we interview people we always ask about diversity…"* (Participant 1).

Participant 3 was more specific, stating:

> *"You begin to meet people where they are at rather than trying to establish rapport…* [and] *…to the particular patient it is not a behaviour. That is his way of life. That's him. That's where he is coming from…"* (Participant 3).

Participant 3's description in this regard was related to cultural diversity and the need for the nurse to be educated in relation to being culturally relevant. This relates to the viewpoint of Al-Rodhan and Stoudman (2006) as described earlier.

5.2.4.3   Professional Leadership Category

The category of professional leadership also demonstrates similarities as well as differences. Examples of this are shown in the following verbatim transcribed responses:

"What we should do is actually stand up and say, we are a profession in our own right… I did this, this, this and this and as long as you have used good professional judgement as to why you did it, it should be OK" (Participant 8).

This demonstration of understanding relates to the nurse using evidence to support practice and being accountable for their practice as required by the NMC (2015). In addition, there is the element of emotion and implied conviction with which the statement is made, such as:

"I did this, this, this and this… it should be OK" (Participant 8).

It was observed that the adjacent written notes at this point of the interview indicate that this participant used a right hand gesture and counted their fingers on the left hand to indicate the following statement with conviction, and then with both hands opened outwards emphasised *"it should be OK".*

Participant 5, on the other hand, observed that:

"I think that the people who bring it to the managers are going to have to really sell it" Participant 5).

Consulting the written notes, it was observed that this participant used hand and facial gestures such as waves, a pointed right hand, and nodding. It could be argued that in terms of the ESD concept, this participant articulated that for nurse education to address the relevant issues, senior lecturers will need to demonstrate leadership attributes in terms of convincing others, some of whom may be influential in terms of delivery and commissioning. The use of the words "*I think that the people"* are also emotive, in that this participant appeared to remove herself/himself as an individual, while at the same time appearing to connect with the role of the nurse in relation to influencing policy and professional leadership. The role of convincing managers of the explicit

relevance of ESD in current programmes of study was seen as important by this participant.

It was found that the aforementioned participants' descriptions could both be categorised as professional leadership, but the key difference was that Participant 8 described the demonstration and ability to be accountable through the use of evidence, while Participant 5 emphasised the professional leadership quality of assertiveness. According to Cambridge Dictionaries (2014) 'assertive' "describes someone who behaves confidently and is not frightened to say what they want or believe…". In the context of the category of professional leadership, this could be seen to add the personal attribute that is underpinned by knowledge and experience (evidence) and is related by the participants to nurse education in its application of ESD. The issue of assertiveness is addressed by Adair (2002), Alimo-Metcalfe (2003) and Alimo-Metcalfe and Alban-Metcalfe (2008) in their belief that people are more effective when they are confident, knowledgeable and abled, when they are aware of their own abilities and weaknesses. Moreover, Adair (2002) and Alimo-Metcalfe and Alban-Metcalfe (2008) also believe that these attributes enable individuals to work effectively as team members, players and leaders. These qualities arguably facilitate inter- and intra-disciplinary functionality that adds quality value to patient care at multiple levels, such as at social, political, local and international levels (Alimo-Metcalfe, 2003; Alimo-Metcalfe and Alban-Metcalfe, 2008).

> "Employers, managers and professional colleagues should be fully committed to involving nurses and midwives in making policies and decisions, from the board to the point of care…" (DoH, 2010b:83).

In addition, the RCN (2014) asserts that it is an expectation that health and social care workers innovate and modernise the service, so that quality care can be given to service users. The RCN also advocates that this may be done

by embracing new technologies. The issues of innovation and technologies were also raised by Participant 3, who adds that this is important and that in terms of relevance, education should be relevant and produce a practitioner who is able to demonstrate professional leadership:

> *"So with or without technology nursing education must be globally recognised…"* (Participant 3).

Participant 6 adds to this:

> *"It has to move on. It has to embrace new skills as new technology is introduced and it's just a whole range of things really cause it is also about how people work and how they manage and good management and their health at work as well…"* (Participant 6).

The issue of "*good management"* is added in relation to professional leadership. To stress the issue of professional leadership, Participant 6 added that:

> *"Well, it's about applying evidence-based… It's about research. It's about embracing new technology, but obviously that has obviously got to be done within a budget and… it has to be evidence-based. It has to move on. It has to embrace new skills as new technology is introduced and it's just a whole range of things really, cause it is also about how people work and how they manage and good management and…"* (Participant 6).

The RCN (2014) has also indicated the need for nurse education to change in response to the current evolving landscape of the NHS in particular, which is viewed as a driver for this notion. While each of these participants state and describe their viewpoint differently, they both address the issue of professional leadership. However, Participant 3 views this structural issue as functional independence, whereas Participant 6 views assertion through knowledge facilitated by an evidence base, as critical to professional leadership.

5.3.4.4   Contrastive Comparison of Each Category and Outcome Space

The categories were then compared and it was found that responsibility, globalisation and professional leadership best described the structural aspects of the senior lecturers' understanding. In addition, the issue of relevance continued to resonate throughout as the glue that allowed responsibility, globalisation and professional leadership to be held together and to act as key structures that determined the senior lecturers' understandings.

5.3.4.5   Summary of Data Analysis Process

The data analysis process can be summarised by following the direction of the arrows in Figure 5.1.

Figure 5.1: Process of Data Analysis

Familiarisation → *Compilation (extract examples to demonstrate)* ↓

Reflection/reflexivity ↓

Condensation → *Classification and grouping* → *Preliminary* ↓

Comparison of groups/categories → *Naming of categories* ↓

Reflection/reflexivity ↓

Contrastive comparison of each category ↓

Outcome space, **with referential and structural aspects.**
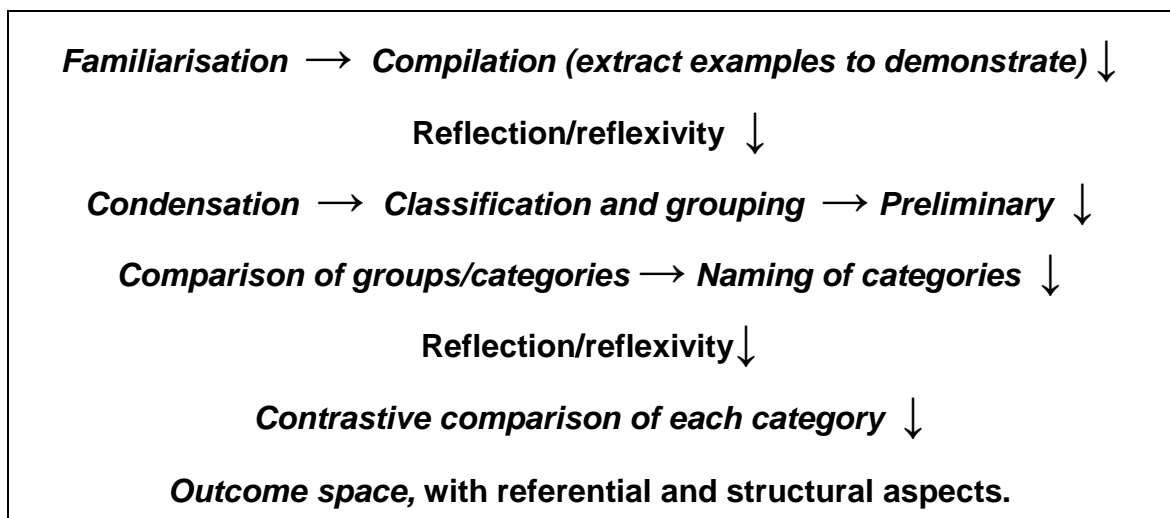
Although this study differs from other established studies, the adopted process of analysis is supported by Sjöström and Dahlgren (2002), Reid and Petocz (2006) and Ornek (2008). Phenomenography does not discount similarities, but establishes the limited inter-related different ways of understanding. Larsson and Holmström (2007) acknowledge that phenomenographic data analysis may

be carried out in different ways, but regard the structural and referential features as vital.

The use of the written notes that accompanied the interviews in this study also enabled the continued use of the analysis to represent the outcome space in a cyclic different way, where the main issue of relevance underpinned the structural issues. It is unclear whether the use of computer software, as opposed to manual analysis, would have facilitated this continued representation (Welsh, 2002).

5.3.4.6   Cyclic Representation of the Outcome Space

It can be asserted that a cyclic representation also retains the described understandings of the participants. In addition, the participants arguably contextually understood the concept of ESD as a continuing and evolving part, role and remit of nurse education, from pre-registration through to and throughout post-registration. It was seen that participants recognised the need for ESD to be an issue not just for pre-registration student nurses, but also for continuing education post-qualification, for example:

> *"So I think that might be one of the issues for me and I know that when I teach students whether they be pre-reg or post-reg..."* (Participant 5).

> *"…to a certain extent some of it possibly could be done post-reg…"* (Participant 6).

> *"I think it is also about us helping nurses whether they be pre-registration or post-registration, to contribute towards the sustainability…"* (Participant 7).

Starting with education that is relevant and adopting an ethos of personal and professional responsibility, ESD was also understood to relate to the life-cycle of nurse education, from pre-registration through to and including post-registration. The participants who informed this thesis' descriptions of understanding (see Appendix 4) point out that education needs to remain relevant throughout in order to facilitate professional practice, accountability and leadership. This is represented in Figure 5.2, starting with relevance in the left upper corner, following the arrows to the right upper corner to the right lower corner, through to the left lower corner and continuing back to relevance through the professional life-cycle of the nurse and in terms of nurse education.

Figure 5.2: The Life-cycle of Nurse Education and its Relationship to ESD

Relevance - Globalisation $\longrightarrow$	Personal and professional responsibility $\downarrow$
$\uparrow$ Professional leadership	$\longleftarrow$ Globalisation - Relevance
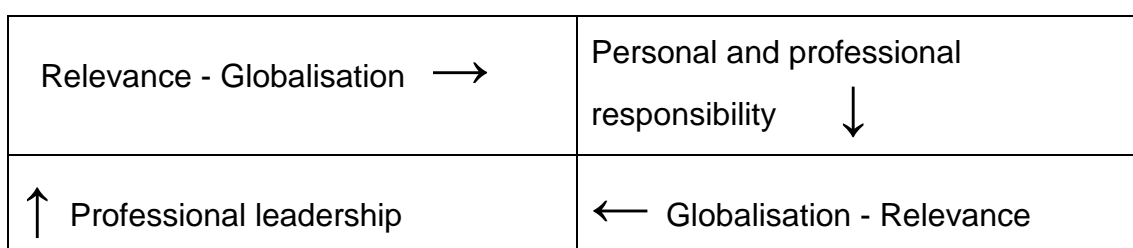
The participants viewed relevance, globalisation, responsibility and professional leadership as closely associated to the role of the nurse, implied in the professional code (NMC, 2015), in addition to being complex inter-related issues.

5.4   Discussion of Findings

5.4.1 Relevance

The issue of relevance was both demonstrated verbatim and implied in the interview responses of the participants. It was found and therefore asserted that relevance is viewed as pivotal and considered as a point of reference to nurse

education senior lecturers' understandings of the concept of ESD and its relationship to nurse education.

The participants agreed in different ways that the concept of ESD is relevant to practice and, consequently, nurse education ought to be relevant to enable this:

> *"…but I think we're not very good about thinking about the future generations and what the effect of what we do will lumber our children with and it seems to me that there is an element missing about what we do has importance not only for people at the relevant time but also 10, 15, 20, 30 years down the line. I don't think that is - we never talk about that do we about what the effects of doing things now is going to happen 50 years on…"* (Participant 1).

Participant 8 also described the issue of relevance and compared the current state of UK nurse education with that of other nations:

> *"Yeah, so again that's sustainability and then looking at the different areas and I think their curriculum probably is a lot more contemporary in that they do look at a lot more of these wider issues and as you said it is the language…"* (Participant 8).

This participant went on to suggest ways of applying relevance, by describing:

> *"So when you are talking about general care, one of the things maybe the ethical principles of just doing say like a role play. So and so comes in refusing to have or the surgeon gives them the wrong information, how would a nurse deal with this. Now how would that relate to what you know about consent? Perhaps you should go and read around consent and then that course improves sustainability and then maybe you could throw in a curve ball by adding someone from a different culture and then how you would get that information across to them. For example, maybe you would have somebody who has just come over from the…"* (Participant 8).

This participant added the issue of context in relation to the application of the ESD concept to enable real situation critical thinking.

It is therefore asserted that the issue of relevance in education is a critical factor for student motivation. This is directly associated with the assertion of the need for inclusion of appropriate content and delivery (Kember *et al.*, 2008). In addition, it could also be argued that where students are facilitated to appreciate contextual realities, relevance to education and subsequent practice can be established and demonstrated. The concept of ESD in this regard is no exception. This assertion is supported by this thesis' original findings, in addition to those of Zeigler (2008). Zeigler asserts the importance of relevance in relation to education, but also acknowledges that the onus is often viewed as being on the teacher. In this thesis, however, Participant 2 also views relevance as important for sustainability, but includes the students' perspective thus:

> *"Well, for something to be sustainable it's got to be robust and test the time really to ensure its relevance. I suppose from a student nurse perspective and we're equally looking at the qualified nurse that's coming out at the end that this person is a safe practitioner that's got a certain amount of knowledge base behind them…"* (Participant 2).

However, in terms of relevance, Zeigler (2008) adds that if all that is taught and learnt is what is perceived as relevant, there may be a danger of hindering professional progression, critical thinking, innovation and the progress of future practice. Marton and Saljo (1976a; 1976b) concur that relevance fosters deep learning. Nelson Laird *et al.* (2008) also assert that when there is a focus on relevance and meaning, the outcomes of learning are deep rather than superficial. However, this belief and, moreover, how this is achieved is considered by Reason *et al.* (2010) to be poorly tested, contested and an area that presents multiple challenges. Finding ways that facilitate deep learning through the association of relevance is therefore a challenge to be addressed in education in general and, from the perspective of this study, in relation to the

relevance of concepts of ESD to nurse education. There is consensus in addition to the findings of this thesis to support this assertion (*ibid.*).

5.4.2 Responsibility

The structural aspect of personal and professional responsibility is also not without its challenges. In terms of individual personal responsibility, this is difficult to separate from professional responsibility, as indicated earlier. The individual nurse's behaviour, choices and practices impact on and have consequences for the standing of that individual and the profession (NMC, 2015).

In relation to the understanding of ESD and its relationship to nurse education, the participants described their understanding in different ways. The complexity of the dichotomy in relation to responsibility was described by Participant 2:

> *"…everybody has their responsibility to play within society as regards to sort of trying to reduce…"* (Participant 2).

The conflict between what is personal and professional responsibility is original within this thesis and described by Participant 3 as:

> *"I personally try to run, you know deliver a session as part of my unit…"* (Participant 3).

and by Participant 7 as follows:

> *"…I personally think the problem is that we see nurses as they have got to be able to do…"* (Participant 7).

This conflict between what is the right thing to do personally, professionally, singularly or together may be the reason why ESD is so scarcely addressed explicitly in the nursing literature. In this study, it was found that professional responsibility in terms of nurse education assumes and consumes personal responsibility. In so doing, the lines are blurred. The NMC (2008; 2010; 2015) demonstrates this in its Code and Standards, stating that the nurse must commit to principles that protect as well as serve society. Moreover, the NMC (*ibid.*) considers that the professional nurse is also accountable for this duty of care during the activity of giving care (on duty), as well as when planning and underpinning the rationale of care (off duty and in education). This relates to all areas where nursing and nurse education are considered applicable and appropriate in an ever-evolving world.

Longley *et al.* (2007) consider that issues such as population growth, changing disease needs, patient choice and addressing the needs of management in relation to long-term conditions are among other issues that need to be addressed by nurse education, health policy and healthcare. Therefore, responsibility as an ethos that facilitates a 'waste not, want not' philosophy in nurse education in relation to addressing the use of resources, is arguably, according to the participants in this study, an individual as well as a professional responsibility. In this respect, it could be asserted that this thesis adds to the body of knowledge.

There is a lack of research in relation to the issue and meaning of moral responsibility in nursing, despite nursing being viewed as a moral activity occupation, and therefore clarification is needed (Lindh *et al.*, 2007). From a study of student nurses, Lindh *et al.* (*ibid.*) conclude that understanding what student nurses perceive as moral responsibility in practice is important, because their research demonstrated the complexities related to moral responsibility and

nursing practice. How this study and thesis relate to the behavioural practices and understanding of responsibility by nurse educators and senior lecturers is unclear. What this particular study has demonstrated, however, is the value that has been associated with critical thinking and reasoning through a process of regular ethical reflection to discern responsibility and develop practice as educators as well as learners (*ibid.*). This thesis' originality, in looking at senior lecturers' understandings of the concept of ESD and its relationship to current nurse education, contributes to the continuing changing landscape of nurse education and practice and, as a consequence, adds to the body of knowledge, albeit primarily at a local level.

Martino-Maze (2005) asserts that nurse educators at all levels of curriculum design and delivery need to address the continuing changing landscape of education and practice. To do this will require measures that identify and manage prejudice, intolerance, racism, bigotry and the like. Martino-Maze recognises the challenging complexities of personal and professional responsibilities in nursing practice, but despite asserting that higher education ought to facilitate tolerance and embrace diversity does not address the issue from the perspective of nurse educators and their educational practices.

The understanding of the concept of ESD and its relationship to nurse education by senior lecturers in this study, while demonstrating responsibility (both personal and professional) as a structural aspect, has also shown that it is difficult to separate these standpoints of responsibility as a concept in nurse education and practice. To address the themes found in the analysis, the practice of ethical reflection by senior lecturers can be considered as implied by the structural aspect of responsibility. This aspect also realises issues of human rights and the healthcare assertions of the ICN (2000). Ethical reflection will be

addressed later in this chapter, because it also relates to the structural aspects of globalisation and professional leadership.

5.4.3 Globalisation

The structural aspect of responsibility was related to globalisation and the effects of globalisation. The structural aspect of globalisation, whether viewed from the perspective of internationalisation of nurse education and/or climate change, was found to be relevant for nurse education and nursing. The participants described these in different ways and from both perspectives.

Nurse education in relation to internationalisation relates to the viewpoints of some nurse educators. Historically, the institution of the university has been seen as an international institution albeit a national body, according to Scott (2000). Jarvis (2001) adds that over the past two centuries, universities have moved from being places for preparing societies' elite, to adopting the more functional activity of the preparation of individuals for work and continuing employment. Scott (2000) argues that along with colonialism, internationalisation of the university came about in two ways. Firstly, from the perspective of imperialism with the impregnation of dominant views. Secondly, internationalisation of the university occurred during the 19th and 20th centuries when science and scientific method, with their assumed objectivity and universal appeal, found favour. The scientific, economic and political association between countries over time has led to a changing thrust in relation to internationalisation. This change is said to range from developmental exchanges where the status quo is challenged, worldviews are questioned, to one of international trade, employability and world-appropriate understanding (Chase-Dunn, 2001). The findings of this thesis support this assertion and demonstrate that this view also relates to nurse education.

The relevance of globalisation with regard to internationalisation, for nurse education's senior lecturers in terms of the role of the university, may be influenced by their experiences in it and of it. Allen and Ogilvie (2004) acknowledge that an international education allows for the recognition of the interdependence of world nations and is facilitative of world peace, global understanding and nursing practice in a diverse world. They also identify that those engaged in internationalisation may do so for varying reasons and cite Pratt's (2000) opinion of two competing guiding worldviews that may underpin internationalisation; one of economic and political dominance, and the other that is underpinned by humane ethical reasons. Arguments in favour of economic and political dominance assert that profit through trade facilitates support and contributions, without which world peace, health and security could be threatened. Those who argue from a humane standpoint utilise the stance of ethical obligations to those who suffer unrelieved poverty and its subsequent effects through sustainable environmentally sound human development (Allen and Ogilvie, 2004). Despite these apparent worldviews, current internationalisation, according to Allen and Ogilvie (*ibid.*), is more about reciprocal learning benefits and less about selflessness. Internationalisation is relevant to UK nurse education and practices at home and abroad when the following described understanding is considered:

> *"To include everything so that if for instance, if a British nurse moved to America they can function there, i.e. they move from Britain to Timbuktu for instance, they can fit in there. Where they haven't got all the technologies and all that, they can fit in there. That is what education for sustainability should be…"* (Participant 3).

It was found that although described differently, Participant 7 concurs with this understanding and viewpoint by describing that:

"I think it's so important because I think if you are going to develop a nursing workforce who can work in the first world where we have multi-cultural, we have people moving around the world…" (Participant 7).

In addition:

"…in realistic terms you would say that we are educating our students to care for hopefully themselves and their families but all of those people that they come across…" (Participant 10).

Internationalisation is viewed as having implications in relation to the challenges that may be faced by nurse education senior lecturers with regard to their own value systems, appreciation of diversity and the need to educate for the achievement of culturally competent care (Martino-Maze, 2005). According to Clyne *et al.* (2001), ideas in relation to globalisation are underpinned by three contradictory beliefs that are classifed as:

- *Neo-liberal*, where the state is considered as a hindrance to social and economic development because economics is key.
- *Social transformational*, whereby the essential issue is of mutual reciprocal exchange and development. Priorities are placed on equity and social justice, where societies need to change in response to changing circumstances which may be political, economic and/or international,
- *Liberal* viewpoints, that suggest that elements from the neo-liberal and social transformational perspectives can be combined to facilitate human development, growth and respect. The internationalisation of universities in terms of globalisation is believed to remove the biased attitudes and beliefs that facilitate ethnocentrism.

The implication for senior lecturers as a result of this thesis is that nurse education must recognise these contradictions and address an understanding of the political and economic issues that affect health, social development, nurse education and practice at home and abroad (Goodman and Richardson, 2010; Richardson *et al.*, 2014). This would without doubt require the facilitation of student nurses' education and practice to be appropriately planned, delivered and supported in the real world of practice placements, as well as the classroom, which continue to change and remain diverse (Richardson *et al.*, 2014). Allen and Ogilvie (2004) support this view and also assert that universities ought to be moving towards a liberal stance to address culturally competent care and the nurse's effective global citizenship. In addition, they also state that nurse education faculties are well placed in terms of international experience and the ability to challenge the pomposity of neo-liberalism. They go on to assert that nurse education can ensure that international engagements and enterprises are mutually respectful and open to international collaborative scholarly development, research and practice. Therefore, the findings of this thesis concur with the development and delivery of curricula that engage and facilitate the understanding of social and health injustices which are affected by political and economic frameworks (Allen and Ogilvie, 2004; Goodman and Richardson, 2010). The findings from the verbatim descriptions of participants present a contribution to nurse education knowledge. The structural aspect of globalisation was also described by participants as being understood from the perspective of climate change related to the environment. Thus, one participant comments:

> *"I suppose that is one example. I mean the other would be climate change and that impact is huge on the environment, but of course our client wouldn't expect nurses to be talking about climate change, but I do think that nurses ought to be…"* (Participant 9).

The literature points to what was considered by the WHO (2007) as a collection of related economic, political, social, cultural and health factors that cannot be managed individually. Costello *et al.* (2009) argue that climate change is strongly believed to be one of the most pressing and concerning issues affecting health in the 21st century. The implications for nurse education and senior lecturers, according to the findings from this research here presented, suggest that there needs to be a re-thinking of how nurses are educated. Sterling (2001) suggests a move from transmissive to transformative methods of education, which would facilitate the move from simply doing, to include critical thinking, reflection and reasoning that enables proactive management, in addition to acting on the subsequent outcomes of education and care. In relation to climate change:

> *"I suspect the nurse's role is very different because I suspect in a developing country, the nurse's role will encompass all of those elements, climate change, alleviating poverty…"* (Participant 9).

However, the implication for nurse education, according to this thesis, is the need for an explicit recognition of the connections between climate change, the environment, health, wellbeing and nursing within the curriculum, its delivery and subsequent evaluation (Richardson *et al.*, 2014). This thesis provides a framework that avoids prescription, but asserts an outcome space (referential and structural aspects) that can be used to plan and deliver nurse education that is contemporary and meaningful locally in multiple settings (clinical practice placement and within the institution). In addition, this thesis also asserts the implication that senior lecturers need to reflect on their individual knowledge base in relation to this outcome space, education and teaching methods. In addition, these issues need to be considered in relation to nurse education, professional growth, critical thinking and continuing development. However, a senior lecturer's knowledge base may not include the necessary expertise

related to for example, the environment. The implication of this knowledge deficit would therefore need to be addressed by embracing multi-professional collaborative teaching and learning practices. The expectation of collaborative approaches that facilitate practice and outcomes is acknowledged by the NMC (2015) and HEA/QAA (2014) amongst others, supported by the findings of this thesis and considered as integral for professional leadership, knowledge and practice.

5.4.4 Professional Leadership

The structural aspect of professional leadership is also related to nurse education. In terms of the concept of ESD, one participant commented that:

> *"Potentially we have a lot of influence. I think that we don't have leadership and I think the leadership that we have are not interested in these kinds of issues. Having said that, if they understood that basic nursing care comes under the element of sustainable development, I think we could influence. Our leaders don't seem to have that wide perspective on many things"* (Participant 9).

Another commented:

> *"…as long as it's correctly being managed by the whole multi-disciplinary team and the nurse plays a pivotal and vital role in that particular team…"* (Participant 2).

Participant 3 pointed to an effect on nurse education:

> *"The learning objectives, the content, the place, the exchange of knowledge, transfer of knowledge…"* (Participant 3).

In terms of professional leadership, in addition to ethical reflection and adopting the practices that facilitate liberal internationalisation, relevance and responsibility, the issue of knowledge and continuing contemporary knowledge and experience to support and prepare is called into question. Garet *et al.* (2001), in a study conducted on teachers, ascertained self-reported activities which were found to increase skills and knowledge in relation to their role, including issues such as:

- an emphasis on the content;
- collaborative activities that included observation of peers, colleagues and other disciplines;
- active learning;
- time to learn; and
- coherence and contextual relevance.

Garet *et al.* (2001) suggest that to achieve excellence in teaching outcomes and leadership from the profession, there needs to be a realisation and investment in professional development. Although their study was undertaken in the United States of America and not in the university sector or nursing, parallels in terms of social and economic development, and ambitions of teaching delivery may be drawn with the UK and nurse education. Eagle *et al.* (2003) comment on the need for professional leadership *per se* and recognise that professional organisations play a large role in the development of their members. While the Eagle *et al.* study did not relate to professional leadership in nurse education, parallels with the findings of this thesis may be drawn in that it recognises the need for professional leadership to appropriately address nurse education and ultimately the quality of outcomes in clinical practice. This thesis also supports the argument that points to the critical importance of the utilisation and active embracement of evidence to guide and foster practice. The findings of this

thesis also validate the assertion that evidence-based practice should not only be used but should be seen to be used to facilitate professional leadership. This is a further contribution to the body of nurse education knowledge and practice.

Mastrangelo *et al.* (2004) believe that the sustainability of any organisation is dependent on effective leadership. They assert that effective leaders adopt both professional and personal leadership behaviours. Professional leadership behaviours are activities such as the design of mission statements and the creation of processes to achieve mission statement outcomes. Personal behaviours are viewed as being activities, such as trust building and moral behaviour. Although their study does not relate to nurse education or practice, the issues uncovered in relation to professional leadership in that study may be viewed as being general. The findings of this thesis, however, demonstrate that they also relate to nurse education, which corroborate the assertions of Mastrangelo *et al.* (*ibid.*) and add to the body of nurse education knowledge. In nurse education, it could be asserted that the mission statement is synonymous with the aims and goals of session delivery for example, followed by learning outcomes. Mastrangelo *et al.* (*ibid.*) also note that the issue of personal behaviour is critical in relation to how individuals relate to each other, collaborate and contribute. This issue is additionally relevant, because leadership carries challenges associated with morality, justice and truth (NMC, 2015).

These issues were described by the participants in this study and related to their understandings of the concept of ESD. In addition, Mastrangelo *et al.* (2004) note that where leaders are not viewed as being credible in terms of knowledge, morality and practice, outcomes of effort are less than what was expected or wanted. These are issues which are undoubtedly related to the outcomes of nurse education and practice (NMC, 2010; 2015).

In relation to the concept of ESD, it is also asserted as a result of the findings of this thesis that the issue for nurse education of professional leadership is therefore one of knowledge and behaviours that are perceived as ethical, such that effective leaders practise what they teach.

5.4.4.1   Ethical Reflection, Behaviour, Knowledge, Expertise and Evidence-based Practice

The issues of ethical reflection, ethical behaviour, knowledge, expertise and evidence-based practice, as indicated earlier in relation to the structural aspects of responsibility and globalisation, are also applicable to professional leadership. Galuska (2012) acknowledges that nurses are required to change and move health service practice forward at all levels. As a result of this thesis, it could be asserted that Galuska's acknowledgements have relevance to nurse education. It is asserted that this is also the case from the perspective of the service provider and service user. Galuska states that appropriate change will require that nurses are prepared for leadership roles. Education that is accompanied by opportunities to use the knowledge and engage in leadership in an environment that is conducive, yields the most effective outcomes in terms of professional leadership. In relation to the understanding of the senior lecturers interviewed in this study, Galuska's (*ibid.*) assertion supports the findings and relates to the nurse in practice as well as in education, utilising the concept of ESD knowledge and evidence to influence policy, curriculum and curriculum delivery. It should be noted that Galuska's assertions are founded on a study conducted on and in relation to nurse leadership in the USA, but that parallels in terms of the nurse's role, education and practice environment can be drawn with that of nurses' education and practice in the UK.

In relation to ethical reflection by senior lecturers during curriculum planning, design and delivery, there does not appear to be a body of knowledge to inform how this may best be achieved. It could also be assumed that ethical reflection models aimed at students may be equally effective when used by senior lecturers before, during and after curriculum planning, design and delivery. Allegretti and Frederick (1995; Tomcho and Foels, 2012) reported in relation to their interdisciplinary programme that addressed ethical reflection using a five part model. They noted that the outcome in relation to the students' critical thinking that was subsequently assessed indicated that it was significantly higher compared with how it was at the start of the programme. However, Woods (2005) questions whether, as a profession, nursing has come to grips with the complexities that ethical reflection demands. Moreover, in relation to addressing the concept of ESD and the understanding of senior lecturers, the findings of this thesis demonstrate that the issue of ethical reflection warrants further study. In relation to critical thinking and reasoning, the validity and usefulness of tools that facilitate reflection are questionable (Mackintosh, 1998). This questioning of the practice is also posited by Mann *et al.* (2009), who comment that the theory of ethical reflection is sound, but that its teaching and practice by educators needs more work. The HEA/QAA (2014) offer guidance and suggestions for educators, some of which may facilitate ethical reflection and dealing with issues related to ESD delivery.

The outcomes of other studies that sought to expound the understanding of educators in relation to the concept of ESD have not pointed to ethical reflection for educators as a finding or as a subsequent question. In this regard, it is asserted that the findings of this thesis, which point explicitly to the issue of ethical reflection by nurse senior lecturers, are original and add to the current body of nurse education knowledge and practice.

5.4.5 Application of this Thesis' Outcome Space to Address the Concept of ESD

The findings of this thesis in relation to the issue of relevance (referential aspect) can be used to demonstrate, critically discuss and connect with nursing matters related to responsibility, globalisation and professional leadership (structural aspect). This approach is not unlike the suggestion of Barna *et al.* (2012), who propose a matching of the concept of climate change with professional values. However, using the issue of relevance as central, associated with responsibility, globalisation and professional leadership in this way, relates directly to the outcome of this thesis. Domain 1 (NMC, 2010) for example, may be addressed with regard to the generic standard: patient/public safeguarding comes first. This can be followed through by addressing, where appropriate, the detail of the field standard: adult nurses must be able to promote the rights, choices and needs of all adults at all times in any setting and where appropriate this must be applied to children, young people and the ageing population (see Table 5.4).

The pedagogical approach may, for example, be adopted to suit the environment and facilitated by using active learning techniques in clinical placements with real experience and multi-disciplinary collaborations, discussions, project assignments and simulated scenarios in the classroom (Garet *et al.*, 2001; Richardson *et al.*, 2014). In addition to addressing the need for relevant education, active teaching approaches may also add to senior lecturers' professional development (Garet *et al.*, 2001).

Table 5.4: ESD to Address Standards for Pre-registration Domain 1

Relevance	Responsibility	Globalisation	Professional Leadership
Multi-disciplinary (MDT) holistic approach and partnerships.	Understand the role of other professionals and collaborate appropriately. Engage with service users, families, communities and organisations. Promote health and wellbeing. Promote and facilitate safe self-care.	Recognise, address and respect diversity. Promote and facilitate equality and choice.	Assess and manage risk, promote and facilitate health and well-being. Challenge inequality. Maintain knowledge and practice with continuing professional development, education, supervision and appraisal. Recognise limitations, reflect and take action from appropriate professional sources to remedy. Value and utilise evidence, in addition to recognising the need for further research.

Source: NMC (2010).

In addition, lesson plans that address, for example, graduate outcomes (HEA/QAA, 2014) and relevant nursing concerns, such as the management of Diabetes Mellitus Type 2 (DM2), in addition to evidence-based scenarios such as suggested by Richardson *et al.* (2014) for pre- and post-registration students, could be drafted and presented at pre-timetabled sessions and administered using active learning methods, as per the example presented below:

* * * * *

Diabetes Mellitus Type 2 (DM2) (relevant)

Learning Outcomes: At the end of this session the participant will:

- outline the concept of ESD;
- outline key elements of the Climate Change Act (2008) and the NHS carbon reduction strategies;
- relate the concept of ESD to the role of the nurse;
- explain DM2 pathophysiology;
- explore the treatment and management options related to DM2; and
- relate the concept of ESD to the nursing management of DM2.

Resources: suggested reading list (pre-session), DVD of case presentation, PowerPoint slides, guest speakers from disciplines other than nursing to demonstrate the relevance and interconnectedness of roles and outcomes.

Lecturer Activity:

- Facilitate small group discussions and explorations of related issues under the headings of:
  - *responsibility* (such as structured education to facilitate self-care within available social, economic and physical resources and waste disposal);
  - *globalisation* (such as cultural competence and life-style choices); and
  - *professional leadership* (such as evidence-based care planning, risk assessment and referrals).

Learner Activity:

- Small groups (5-10) with mutually agreed delegated roles such as presenter, online researcher, field professional/disciplinary expertise finder (such as pharmacist, diabetic nurse specialist, supervised service users' and relatives' perspectives, trust utilities manager, procurement manager and related others).

- In relation to DM2, consider, examine and critically discuss the National Institute for Health and Care Excellence (NICE, 2011) Quality Standards and the National Service Framework (NSF) for Diabetes (NSFD, 2001). How do these relate to ESD and the role of the nurse?

- Discuss how economic and social justice, political and environmental issues may impact on the management of DM2.

- Consider and discuss ethical issues in relation to the prevention, identification and management of DM2.

- Consider and discuss global citizenship in relation to the prevention, identification and management of DM2.

- Consider and discuss how the issues of pharmacology, lifestyle and education issues of DM2 relate to ESD under the headings of 'responsibility', 'globalisation' and 'professional leadership'.

- In terms of social justice and wellbeing, consider the way forward.

Assessment: Presentation (timed for individuals or groups), formative assessment, plus a summative assessment (such as a 3,000 word report) that relates to practice and evidence, and which addresses the learning outcomes.

* * * * *

Addressing emotional issues, ethical reflection by the educator and engagement of the relevant multi-disciplinary teams which are required to develop the suggested approaches, may prove difficult (Ginsburg and Tregunno, 2005; Jones, 2006; Atkinson *et al.*, 2007). In this study, the majority of participants had not thought about the concept of ESD and its relationship to nurse education before agreeing to be interviewed, but had done so since. This may potentially evoke emotions such as fear and resistance to change. The findings of the study, while informative in relation to the research question, also revealed ethical standpoints. Therefore, mitigating potential barriers, challenges and potential dilemmas may be achieved by adopting appropriate change management strategies and addressing the following suggested checklist (see Table 5.5) which, while not prescriptive, is supported by the literature and facilitative of self-reflection and staff development (Garet *et al.*, 2001; Jones, 2006; Atkinson *et al.*, 2007; HEA/QAA, 2014):

Table 5.5: Senior Lecturer Checklist to Support and Deliver ESD

Senior Lecturer	Possible Considerations-	What if?
• What do I know and what do I not know?	Who, where and how to access appropriate information and assistance.	
• How do I address evolving knowledge and information?	As above	
• How directly and indirectly related are the relevant professional roles?	Implications for sustainable management of knowledge, education and practice?	
• How does ESD relate to this area of discussion?	Is ESD explicit, implied or can it be inferred to develop the discussion?	
• How can my existing beliefs, knowledge and experience cloud my ability to facilitate the discussion? How do I foster trust? • How equipped am I to manage conflict?	Reflection exercise that relates to role, professional and personal self. Peer review. Evaluation from students and peers that allows this to be judged. Who and how best to engage expertise.	
• How diverse in terms of education, culture, age, experience etc. is the student body?	ESD or no previous ESD experience?	
• In face of the above diversity, how do I get the students to contribute, share experience, add value, relate positively to practice and grow?	Language and actions that affect communication.	
• How safe, real and appropriate is the learning environment?	Problem-based learning exercise; evidence-based scenarios for classroom exercise; varied opportunities through practice placement with supervision and facilitated mentors.	

The main potential challenges to change relate (for example) to resistance attributed to fear, loss of resources, power, assumed costs in terms of finance, relationships and contracts (Stonehouse, 2013). Therefore, an appropriate change strategy to secure success will be required.

5.4.6 ESD Pedagogical Approach Change Strategy

Borrego and Henderson (2014) affirm that management strategies to address change are complex and certain approaches relate best to particular situations. They propose that the change agent considers four purposeful categories (see Table 5.6) which may be either addressed individually or blended for success.

Therefore, using categories 1 and 2 (see Table 5.6) primarily in the short-term, followed by alignment to school (faculty) or corporate (institutional) strategic objectives and also the needs of key drivers in the longer-term, it can be asserted that a systematic approach and communication are key elements to the application of the findings of this thesis locally (Beech and Macintosh, 2012; Borrego and Henderson, 2014).

Table 5.6: ESD Pedagogical Approach Change Strategy

Category	Strategy	Change Agent Key Role	Methods	Measure of Success
1 Curriculum and pedagogy	Diffusion. Implementation.	Create innovation. Spread Ideas. Develop workshop training. Adopt/utilise feedback.	Identify supporters within the school and university; via email, department meetings and awaydays. Workshop for potential supporters to develop how concept can be incorporated within modules.	Number of supporters of the ESD concept. Application of concept to module and delivery.
2 Reflective teachers	Scholarly teaching. Faculty learning groups and communities.	Promote self-reflection. Collect data related to teaching practice. Facilitate and support group development meetings.	Design collection of data tools. Evidence-based reflection on practice. Peer reviews. Share and listen.	Self-acknowledgement of a change in approach to planning, delivering and evaluating teaching. Increase in interest within the school and adoption of concept. Closer working practices with other disciplines.
3 Policy	Quality assurance. Organisational development.	Mission statement. Develop audit tools. Collect data. Share evidenced data. Develop strategy to include other parts of the organisation to imbed culture.	Timeframed goals. Motivation tools to encourage.	Achieved goals aligned with school's strategic objectives. Graduation and employment rates.
4 Shared vision	Learning organisations. Complexity leadership.	Decision-making moved from the top. Decision-making delegated down and shared. Facilitate different ways of working to create new ways to achieve goals.	Team decisions and planning. Facilitated implementation.	Varied and departmental/school adoption of ESD concept from pedagogical approach to administration and utilities.

5.4.7 Conclusion of Findings, Data Analysis and Discussion

Regarding the research question, the answer has been described in similar but also in different and ultimately limited, different and inter-related ways by the ten participants. The answer was arrived at by selecting a qualitative methodology (phenomenography). This approach strongly suggests that semi-structured interviews be used for data collection and this method was adopted. There are other methods that can be used for qualitative data collection (such as questionnaires), but it was considered that the use of semi-structured interviews which were face-to-face and in the moment had several advantages in this instance (Ornek, 2008). This viewpoint sets the process used to inform this thesis aside from other studies that may appear similar.

The semi-structured interviews facilitated the collection of data and avoided the possibility of unreturned questionnaires, which may have been a problem had that method been employed. The semi-structured interviews also allowed the preparation of the key opening question in advance which, dependent on the response, facilitated an interview that was not constrained or biased. The interview was allowed to develop according to the individual understanding of the participants and their perspectives in relation to the research question. Questionnaires may have allowed me to access a larger cohort of participants (Nikel, 2007), but the ability to probe, answer questions, note body language and gestures and clarify the responses at the same time may have been lost to the activity of data collection (Ornek, 2008; Harrell and Bradley, 2009). In this regard, the qualitative approach used in this research may be seen as original and unique. The ability to add notes and refer back to them facilitated on-going reflection and reflexivity, in addition to the contextualisation of responses. The issue of being face-to-face was also perceived as having the potential to restrict participants' responses and so, to minimise this, the decision, albeit challenging, was taken to eliminate this at best and minimise it at worst. This task was

facilitated by measures such as the use of an information sheet, reiteration of the voluntary nature of participation, choice of location and following ethical guidelines to ensure credibility and confidentiality.

The answer to the research question ultimately emerged from the process of analysis described earlier which necessitated bringing the numerous descriptions down to common denominators (structural aspects) and identifying the predominant key aspect that linked all the issues (the referential aspect). The understandings of these UK senior lecturers of nurse education of 'Education for Sustainable Development' in relation to nurse education were found to relate to addressing the issues of responsibility, globalisation and professional leadership (structural aspect) within a framework that is relevant (the referential aspect). Together, the structural and referential aspects determine the outcome space and are inextricably related; the implications of which will be discussed in the final chapter of this thesis.

5.4.8 *Contribution to Current Knowledge and Practice*

The initial intention to affect nurse education by influencing the mindset of senior lecturers in relation to the concept of ESD has been surpassed. It is asserted that the findings of this thesis have led to a framework from which current and future curricula can evolve and develop. Although the initial intention was not to overtly change the current curriculum, these findings have provided a framework on which the current and future development of the curriculum can hinge in terms of meeting the needs of students, future professionals, patients, clients and other drivers of nurse education.

This thesis contributes to the current body of knowledge, because prior to this study, others (as mentioned earlier) have acknowledged that there is a scarcity

of literature that addresses the understanding of lecturers in relation to the concept of ESD. I assert that this thesis addresses this scarcity on two levels. On one level, this thesis addresses the single professional group of senior lecturers of nurse education and therefore stands out as original and adds to the body of nurse education specifically. On the second level, this thesis adds to the current body of knowledge in general.

The methodological approach employed and the way in which it leads to the findings is also original and unique and, as such, adds to the current body of research knowledge and practice specific to nurse education with local applications.

The outcome space (as described earlier) is unique and unlike any of the studies reviewed that sought to discern lecturers' understandings. In view of the referential and structural aspects of this study, not only can I assert what the current understanding of the nurse senior lecturer is, albeit locally, but a framework and suggested pedagogical approach from which this understanding can be viewed as tangible and applicable are also provided. The scope for further research will be addressed in the final chapter of this thesis.

CHAPTER 6: CONCLUSION

6.1   Introduction

This thesis concludes by reviewing the aims and objectives in relation to the research question. In addition, the findings of this research study will be summarised, along with its contribution to knowledge and practice. This thesis' limitations, scope for further research and, finally, recommendations for practice in nurse education, will also be addressed.

6.2   Conclusion

The aim of this study was to answer the research question: *'What do senior lecturers understand by the term 'education for sustainable development' in nurse education?'* It was asserted that the origins of this question are underpinned and motivated by the unquestionable importance and relationship of ESD to nurse education and practice. The visible and tangible effects of climate change, technology and the economic distribution of wealth (for example) on health are not disputed. In nurse education practice and literature, the explicit use of the terminology relating to sustainable practice, the ESD concept and its relationship within the current local curriculum, in addition to nurse leadership in this regard, are limited and scarce. The NMC and RCN, regulatory and professional bodies respectively, make no explicit reference to the term 'ESD', albeit that it is implied within their publications.

The planning and delivery of the nurse education curriculum in the UK is influenced positively by the NMC in particular, professional organisations and employers such as the RCN and NHS. The lack of explicit reference to the concept of ESD by the NMC in particular is viewed as a missed opportunity to

transform nurse education and encourage purposeful fitness for practice in an ever-changing world. Nurse registrants utilise the direction and guidance of the NMC's Standards for Pre-registration Education and Code of Conduct and ethics for life-long education and practice. The lack of explicit reference may account for its scarcity in the nurse education literature and, ultimately, in the nurse senior lecturer's consciousness; 'out of sight, out of mind'. This dearth of nurse education and practice literature therefore served to motivate this research question and this makes the research question appropriate and timely. The ultimate question was a fusion and evolved version of two questions:

- Is the scarcity of nurse education literature in relation to the concept of ESD a reflection of dissociation between the concept of ESD and the role of the nurse and nurse education?
- Is the lack and scarcity related to the lack of understanding?

Ultimately, the key research question sought clarity to establish local senior lecturers' communal understandings of the ESD concept.

It was asserted that what senior lecturers of nurse education are expected to deliver, their interpretation of the curriculum, the appropriateness of the content and outcomes of practice, need to be embedded in evidence. There is very little literature that suggests a structure from which to guide and approach the concept of ESD that will allow for local needs and the timely and appropriate transformation of nurse education. In this regard, it is asserted that this thesis not only adds to the body of nursing knowledge by filling the void in terms of adding to the current body of literature but also, in relation to practice, facilitates the explicit use of the concept of ESD and associated terms by the provision of a local framework that takes into account the challenges of change and staff development.

The literature was approached from multiple angles that were general as well as nurse specific by looking at ESD in general, in relation to nurse education, applicable pedagogical approaches and associated issues. This facilitated a comprehensive search and examination of the related literature. Due to the scarcity of nurse education specific ESD literature, it was necessary to draw parallels between the available literature and nurse education.

Reviewing the literature from multiple perspectives and angles also allowed a review of personal (the researcher's, i.e. my) and professional beliefs and values in relation to nurse education and practice, from practical, knowledge, evidence-based and ethical standpoints in relation to the concept of ESD. This stance, in terms of the literature review, was additionally beneficial because it also allowed for the appreciation of an overview of the issues that related to the research question. Ultimately, in relation to this thesis, the lack of literature from contrasting perspectives presented advantages as well as disadvantages.

The disadvantage was that there was little specific information to review, which meant that information that related to other disciplines had to be used to draw parallels and comparisons. However, the advantage of this scarcity in relation to nurse education and practice literature was that it strengthened the assertion that this thesis, in addition to being timely, is also a contribution to the current body of nurse education knowledge. Potentially, another purposeful dimension has been added to curriculum planning, delivery and evaluation by addressing the understanding of senior lecturers of nurse education in relation to the concept of ESD. In particular, the way in which nurse education may wish to approach the concept of ESD has been teased out and addressed for local adoption and further development. A local nurse education stamp has been attached to the concept of ESD. In addition, by focusing on the understanding of

senior lecturers and adopting the chosen methodology, it can also be assumed that post-interview reflections and reflexivity on the part of the participants may be influential in terms of current and future curriculum development, interpretation of current standards and local programme delivery. This may address the lack of leadership from the NMC and other influential bodies in relation to the concept of ESD.

It was found that the chosen methodological approach, from an epistemological and ontological perspective, was particularly appropriate for the research question. In terms of establishing the issue of what is understood by senior lecturers in nurse education, alternative approaches might have been adopted. A questionnaire could have been developed, not unlike that used by Cotton *et al.* (2007), and circulated to a purposeful sample to collect the data. This could have been followed by establishing meaning based on qualitative interpretation and statistical evidence. In relation to this thesis, it is not believed that any other method was more appropriate or would have facilitated the shared inter-related different limited ways of understanding that have been unveiled. Furthermore, the phenomenographic approach allowed first and second order perspectives of understanding to be described by the participants. The resultant outcome space of relevance as the referential aspect, and responsibility, globalisation and professional leadership as structural aspects, provide a local framework on which future practice can be built.

Having used the methods detailed in Chapter 4 for data collection and Chapter 5 for data analysis, it is therefore believed that the aims of this thesis have been achieved in terms of answering the research question. The findings are that, at LSBU, senior lecturers of nurse education in higher education understand that ESD is of relevance to nurse education and practice and can be addressed from relevant inter-related perspectives of responsibility, globalisation and

professional leadership. The participants had not considered the concept of ESD and the issues involved before the interviews. It can also be affirmed that the understandings described by the participants rested on their perceived need to sustain nurse education's fitness for purpose, appropriateness and value within society at home and abroad, now and in the future. All but one of the participants' decision not to re-read their transcribed interviews could have been made explicit by including this decision choice on the consent form (see Appendix 2). This may have strengthened the assertion of saturation in relation to data collection.

6.2.1 Summary of Findings of this Thesis and the Contribution to Knowledge and Practice

The findings of this thesis and its contribution to the current body of knowledge and practice can be summarised as follows:

- Following the phenomenographic analysis, the outcome space that represents the understanding of senior lecturers is the referential aspect of relevance and the structural aspects of responsibility, globalisation and professional leadership.

- The findings of this thesis underscore the assertion that explicit reference to the concept of ESD enables nurse education to apply evidence-based knowledge that is applicable now and in the future.

- This thesis has demonstrated how nurse educators view their role in relation to preparing professional nurses for practice.

- This thesis has demonstrated the association between the concepts of ESD and its appropriateness to nurse education, which can be used to inform practice and the delivery of current modules of study.

- This thesis has demonstrated and asserted themes from the referential and structural aspects that can serve as a local structure (framework) to assist with contemporising and contextualising curriculum development, continuing development of senior lecturers, current programme delivery and the planning of future curricula.

- This thesis has suggested that the ESD concept could enter the consciousness of senior lecturers by explicit reference, which can be used as a vehicle for continued development and delivery. This could further allow and facilitate recognition and contextualisation of the issues that are integral to the concept of ESD and nurse education.

- The thesis has demonstrated the value that can be associated with ethical reflection that is facilitated by critical thinking and reasoning by the lecturer as well as the student.

- The thesis has demonstrated that enabling critical thinking and education practice can potentially filter into clinical practice using active learning techniques.

- In addition to a filtering through to nurse education practice, it is asserted that active ethical reflection with regard to consideration of the concept of ESD can potentially affect the role of the nurse at all levels.

- There is a strong suggestion and indication that this filtering through to clinical practice of critical thinking can facilitate the development of innovative nurse practitioners who are purposeful and prepared to professionally lead and practise.

- It has been demonstrated that an awakening to what we do locally, why we do it and how we as nurse educators influence current and future curricula development, its delivery and practice will facilitate local teaching and learning that are transformative, innovative and facilitative of critical reasoning, thinking and doing.

6.3   Limitations

In addition to the reflections noted within the study and the use of Tong *et al.*'s (2007) assessment tool, further limitations which may be viewed as inter-related should be considered in terms of the chosen methodology:

- o   cohort size and institution;
- o   the semi-structured interviews; and
- o   data analysis.

6.3.1 Cohort Size and Institution

The size of the cohort, age, gender, personal and professional experience may all affect the inferences drawn from this study. The participant numbers can be considered small and local to this study. Issues such as gender, age, personal and professional experiences (local and general) may have also influenced the nature of their responses. Individual constructs in relation to role remit and organisational culture may also have affected the responses, as may individual varying interpretations of the organisational and departmental strategic plan. While parallels may be drawn between with this study and others, transferability and external validation may be difficult. Replication is also unlikely because of the specific particulars of LSBU and the qualitative nature of this study. Further limitations concerning the undertaking of this study at a single site concern personal and professional connections between the researcher and participants.

Following an assessment of the advantages and disadvantages, a larger cohort of participants may have been approached by using an e-questionnaire sent to senior lecturers at several institutions. However, the depth and detail of the

responses gained from the small cohort at one institution, while having inherent limitations, has led to findings that are locally practical as well as producing theory.

6.3.2 The Semi-Structured Interviews

Despite the fact that the interviews were confidential, one-to-one and that respondents were unknown to each other, working relationships within the same organisation, as addressed above, may have also affected participant responses and interpretation. Anonymous, non-face-to-face interviews with unrelated participants may have allowed more freedom. In this regard, an additional structured questionnaire may have been considered to be less biased. A key difference with a questionnaire is the absence of an interviewer. Structured rather than unstructured questionnaires can allow limited answers to set questions given at the same time. In addition, the questions are exactly the same for all participants. In terms of time and cost, structured questionnaires can be circulated electronically to a large number of potential participants and the issue of face-to-face influence is removed. Participants may also feel more able to state controversial informative data. Unstructured questionnaires are less formal and use open questions which may be interpreted in different ways by both the participants and researcher, which could ultimately affect the outcome of the study. The scope for diverse responses may be facilitated by semi-structured and unstructured questionnaires, but time, depth and quality of the data collected may also be affected by a lack of opportunity for clarification and concurrent note-taking for inference or reference.

While the above issues are acknowledged, the range of diverse responses, opportunity to seek clarification and the nature of this qualitative study warranted the semi-structured interview approach used. The approach used

was accompanied by critical reflection, reflexivity and judged as being the most appropriate for producing data for analysis and answering the research question (Barnard *et al.*, 1999; Dowling, 2006; Carter and Little, 2007; Cohen *et al.*, 2011; Silverman, 2011).

6.3.3 Data Analysis

Data from the semi-structured interviews was transcribed verbatim and concurrent, and post-interview notes used to aid data collection (Marton, 1981; 1988; Marton *et al.*, 1997; Giorgi, 2000), interpretation and the formation of themes; these may also be viewed as biased because of the researcher's influence. The use of ever evolving computer software packages is believed to increase trustworthiness, because of a perceived non-human influence from interpretation, data analysis, theme and category formation (Welsh, 2002; D'Andrea *et al.*, 2011). However, it is also acknowledged that differences in language used to express ideas and context may render such tools inferior to manual analysis for theme and category formation (Welsh, 2002). It could be said that the researcher using software packages still has to input instructions to classify and code data. Another documented difficulty related to using such software, in addition to a lack of expertise, is the confidence to manage the software's creation of what appear as unlimited, potentially un-meaningful themes and categories (*ibid.*).

Notwithstanding the limitations, a determined effort was made to be transparent, to minimise bias at worst and to eliminate it at best by examining decisions and actions through critical reflection and reflexivity throughout the study and at each stage of the process (Morgan and Drury, 2003; Watson *et al.*, 2008). The above limitations lead to the scope for further study, collaboration and dissemination.

6.4   Scope for Further Research

This thesis opens doors to further enquiry in relation to the concept of ESD and nurse education, both locally and at other UK universities. This may be undertaken to test the assertions and findings in this thesis and/or to add to the current body of nurse education knowledge. Further research in this area may be undertaken by using methodologies not utilised in this thesis. Research approaches which employ alternative qualitative, quantitative and mixed methodologies that further examine these findings may corroborate, refute or add to this thesis. This could be facilitated by using computer software for analysis, to demonstrate differences between the results of this thesis and later studies, for example.

In addition, alternative approaches may be adopted to ask the same research question from the perspective of service users (patients) in relation to the role of the nurse and nurse education in terms of ESD. The findings of this thesis have also raised the question of the effect of nurse education senior lecturers' own ethical reflections on their nurse education practice and this can be investigated further to add to a body of knowledge that is currently very limited. The question of that study could be entitled "Do we practice what we preach?".

Further research may investigate the influence of gender, age and experience in relation to ESD. This thesis did not address these issues and how they relate to the participants' responses and understanding of ESD. This leaves the door open for further research into how and whether gender, age and experience affect the understanding of the concept of ESD.

This thesis also raises the possibility for further study that examines the issues of ESD from the perspective of the student nurse. The student nurse's understanding of the concept of ESD can be investigated during pre- and post-registration. This study could be undertaken as a longitudinal study that facilitates an appreciation of how the student nurse develops and evolves in terms of the application and relevance of the concept of ESD to education and practice from pre-registration through to post-registration and beyond. To realise these ambitions in relation to scope for further research, it is recommended that nurse education re-addresses the process and evidence that underpins curriculum design, development, delivery and evaluation.

6.5   Recommendations for Practice in Nurse Education

The sample used to inform this thesis was a small one and from just one institution. The findings therefore cannot be generalised, nor claimed to be representative of all higher education institutions.

Within the parameters of local strategic and corporate plans, a review of the current curriculum may utilise the findings of this thesis in addition to actively working with health provision Trusts' placement settings. In this way, local active application of the ESD concept within nurse education and practice may demonstrate to bodies (such as the NMC) and professional organisations (such as the RCN) the timely nature of an explicit reference to ESD. Further development of the suggested change management strategy, pedagogical approaches and staff support checklists may facilitate and lead to local purposeful nurse education knowledge and practice that can be further disseminated.

Although the findings are local, they can be used to actively influence the interpretation of criteria and language used for education and practice issued by bodies (such as the NMC) and professional organisations (such as the RCN) locally. This can be facilitated by publication and dissemination, in addition to local applications through change management strategies (as discussed in Chapter 5). Further research to investigate approaches and understanding of ESD in other institutions may be a way forward.

In addition, it can be asserted that, as a result of this thesis, the effects of climate change on health and the role of nurse education ought to be approached with explicit reference to the concept of ESD. It is affirmed that this explicit reference may enable nurse education (pre- and post-registration) that is appropriate, timely and ultimately purposeful.

Finally, it can be asserted that locally addressing ESD in the ways suggested may allow nurse educators and practitioners a practical opportunity to address, plan, deliver and evaluate current and future curricula in a way that addresses professional, personal and societal needs and graduate outcomes.

REFERENCES

Adair, J. (2002). *Effective Strategic Leadership*, London: Macmillan.

Aggelton, P. & Chalmers, H. (2000). *Nursing Models and Nursing Practice*, 2nd edn., London: Macmillan.

Alimo-Metcalfe, B. & Alban-Metcalfe, J. (2008). "Leadership: time for a European perspective?". Available online at: http://www. ufhrd.co.uk/wordpress/wp-content/uploads/2008/06/415alimo-metcalfe.pdf [accessed 9 September 2013].

Alimo-Metcalfe, B. (2003). "Leadership stamp of greatness", *Health Service Journal*, **113**(5861), 26 June, 28-32.

Allegretti, C.L. & Frederick, J.N. (1995). "A model for thinking critically about ethical issues", *Teaching of Psychology*, **22**(1), 46-48.

Allen, M. & Ogilvie, L. (2004). "Internationalisation of higher education: potentials and pitfalls for nursing education", *International Nursing Review*, **51**(2), 73-80.

Al-Rodhan, N.R.R. & Stoudman, G. (2006). *Pillars of Globalization*, Geneva: Editions Slatkine.

Atkinson, M., Jones, M. & Lamont, E. (2007). "Multi-agency working and its implications for practice: review of the literature". Available online at: http://www.nfer.ac.uk/publications/MAD01/MAD01.pdf [accessed 20 May 2014].

Audit Commission (2009-2010). *Working Better Together, Managing Local Strategic Partnerships*. Available online at: http://archive.audit-commission.gov.uk/auditcommission/sitecollectiondocuments/AuditCommissionReports/NationalStudies/20042009workingbettertogetherREP.pdf [accessed 10 October 2011].

Avis, M. (2003). "Do we need methodological theory to do qualitative research?", *Qualitative Health Research*, **13**(7), 995-1004.

Baker, S.E. & Edwards, R. (2012). "How many qualitative interviews is enough?". Discussion paper, National Centre for Research Methods (unpublished).

Balser, E. (2007). "Capital accumulation, sustainability and Hamilton, Ontario: how technology and capitalism can misappropriate the idea of sustainability". Available online at: http://aspen.connoll.edu.edu/politicsandculture/page.cfm?key=563# [accessed 1 April 2009].

Barna, S., Goodman, B. & Mortimer, F. (2012). "The health impacts of climate change; what does the nurse need to know?", *Nurse Education Today*, **32**(7), 765-771.

Barnard, A., McCosker, H. & Gerber, R. (1999). "Phenomenography: a qualitative research approach for exploring understanding in health care", *Qualitative Health Research*, **9**(2), 212-226.

Barriball, K.L. & While, A. (1994). "Collecting data using a semi-structured interview: a discussion paper", *Journal of Advanced Nursing*, **19**(2), 328-335.

Barrie, S.C. (2004). "A research-based approach to generic graduate attributes policy", *Higher Education Research and Development*, **23**(3), 261-275.

Baumann, A. & Blythe, J. (2008). "Globalization of higher education in nursing", *American Nurses Association, The Online Journal of Issues in Nursing*, **13**(2), manuscript 4. Available online at: http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/vol132008/No2May08/GlobalizationofHigherEducation.html [accessed 11 March 2014].

Beech, N. & Macintosh, R. (2012). *Managing Change: Enquiry and Action*, Cambridge: Cambridge University Press.

Belgeonne, C., Clough, N., Inman, S., Rogers, M., Warwick, P., Baugen, M. & d'Urban-Jackson, D. (2014). *Education for Sustainable Development and Global Citizenship: Good Practice Case Studies in Teacher Education*, York: Teacher Education for Equity and Sustainability Network, The Higher Education Academy.

Benner, P., Sutphen, M., Leonard, V. & Day, V. (2010). *Educating Nurses: a Call for Radical Transformation*, San Francisco: Jossey-Bass.

Berg, D. (2012). "Definition of education". Available online at: http://www.teach-kids-attitude-1st.com/definition-of-education.html [accessed 2 May 2013].

Berragan, L. (2011). "Simulation: an effective pedagogical approach for nursing?", *Nurse Education Today*, **31**, 660-663.

Bivins, T. (2006). "Responsibility and accountability". Available online at: http://journalism.uoregon.edu/~tbivins/stratcomweb/readings/Resonsi bility-Accountability.pdf [accessed 2 November 2013].

Blüdhorn I. (2002). "Unsustainability as a frame of mind - and how we disguise it: the silent counter-revolution and the politics of simulation", *The Trumpeter: Journal of Ecosophy*, **18**(1). Also available online at: http://trumpeter.athabascau.ca/content/v18.1/bludhorn.html [accessed 10 November 2013].

Boeije, H.R., Drabble, S.J. & O'Cathain, A. (2015). "Methodological challenges of mixed methods intervention evaluations", *Methodology*, **11**(4), 119-125.

Boonkrong, S. (2012). "Security of passwords", *Information Technology Journal*, **8**(2), 112-117. Also available online at: http://suanpalm3.kmutnb. ac.th/journal/pdf/vol16/ch17.pdf [accessed 20 April 2015].

Boote, D.N. & Beile, P. (2005). *Scholars Before Researchers: on the Centrality of the Dissertation Literature Review in Research Preparation*, American Educational Research Association, Sage. Also available online at: http://www.sagepub.com/mertensstudy/articles/Ch_3-1.pdf [accessed 16 April 2015].

Borrego, M. & Henderson, C. (2014). "Increasing the use of evidence based teaching in STEM higher education: a comparison of eight change strategies", *Journal of Engineering Education*, **2**, 220-252.

Bourn, D. (2008a). "Education for sustainable development in the UK: making the connections between the environment and development agendas", *Theory and Research in Education*, **6**(2), 193-206.

Bourn, D. (2008b). "Towards a re-conceptualisation of development education", *International Journal of Development Education and Global Learning*, **1**(1), 5-22.

British Medical Journal (2011). "The health and security impacts of climate change: how to secure our future wellbeing". Available online at: http://climatechange.bmj.com/statement [accessed 10 November 2012].

Brookfield, S.D. (1990). "Using critical incidents to explore learners' assumptions". In: J. Mezirow (ed.) (1990). *Fostering Critical Reflections in Adulthood*, San Francisco: Jossey Bass, pp.177-193.

Bursjöö, I. (2011). "How student teachers form their educational practice in relation to sustainable development". Available online at: http://www.oru.se/Extern/Forskning/Forskningsmiljoer/HumUS/Utbildn ing_och_Demokrati/Tidskriften/2011/How%20student%20teachers%2 0form%20their%20educational%20practice%20in%20relation%20to% 20sustainable%20development.pdf [accessed 24 March 2015].

Burton, M., Brundett, M. & Jones, M. (2008). *Doing Your Education Research Project*, London: Sage.

Cade, A. (2008). "Employable graduates for responsible employers - research on the links between sustainability and employability in the graduate job market in relation to higher education teaching and learning - report to the Higher Education Academy, Student Force for Sustainability". Available online at: www.heacademy.ac.uk/projects/ detail/esd/esd_employable_graduates [accessed 1 April 2015].

Cambridge Dictionaries (2014). Available online at: http://dictionary.cambridge.org/dictionary/english/assertive [accessed 11 May 2014].

Cannon, S. & Boswell, C. (2012). *Evidence-based Teaching in Nursing: a Foundation for Educators*, Sudbury, Massachusetts: Jones & Bartlett Learning.

Carolan, M. (2003). "Reflexivity: a personal journey during data collection", *Nurse Researcher*, **10**(3), 7-14.

Carper, B. (1978). "Fundamental patterns of knowing in nursing", *Advances in Nursing Science*, **1**(1), 13-23.

Carter, S.M. & Little, M. (2007). "Justifying knowledge, justifying method, taking action: epistemologies, methodologies, and methods in qualitative research", *Journal of Qualitative Health Research*, **17**(10), 1316-1328.

Cassidy, S. (2013). "Acknowledging hubris in interpretative data analysis", *Nurse Researcher*, **20**(6), 27-31.

Charlesworth, A., Gray, A., Pencheon, D. & Stern, N. (2011). "Assessing the health benefits of tackling climate change". Available online at: http://eprints.lse.ac.uk/39315/1/__Libfile_repository_Content_Stern,%20N_Assessing%20the%20health%20benefits%20of%20tackling%20climate%20change_Assessing%20the%20health%20benefits%20of%20tackling%20climate%20change%20(LSE%20RO).pdf [accessed 10 September 2012].

Chase-Dunn, C. (2001). "Globalization: a world-systems perspective", *Protosociology*, **15**, 26-50.

CINAHL (2009). Cumulative Index to Nursing and Allied Health Literature. Available online at: http://www.ebscohost.com/nursing/products/cinahl-databases/cinahl-complete [accessed 20 January 2009].

Clark, J. & Lang, N. (1992). "Nursing's next advance: an international classification for nursing practice", *International Nursing Review*, **38**(4), 109-112.

Climate Change Act (2008). Available online at: http://www.legislation.gov.uk/ukpga/2008/27/pdfs/ukpga_20080027_en.pdf [accessed 3 December 2012].

Clyne, F., Marginson, S. & Woock, R. (2001). "International education in Australian universities: concepts and definitions", *Melbourne Studies in Education*, **42**(1), 111-127.

Cohen, D. & Crabtree, B. (2006). "Qualitative research guidelines project". Available online at: http://www.sswm.info/sites/default/files/reference _attachments/COHEN%202006%20Semistructured%20Interview.pdf [accessed 9 November 2010].

Cohen, L., Manion, L. & Morrison, K. (2007). *Research Methods in Education*, 6th edn., New York: Routledge.

Cohen, L., Manion, L. & Morrison, K. (2011). *Research Methods in Education*, 7th edn., New York: Routledge.

Colbourne, L. & Sque, M. (2004). "Split personalities: role conflict between the nurse and the nurse researcher", *Nursing Times Research*, **9**(4), 297-304.

Comrie, A. (2013). "Conceptualising generic skills". Available online at: http://portal.surrey.ac.uk/portal/page?_pageid=1078,486702and_dad =portaland_schema=PORTAL [accessed 3 October 2012].

Comstock, G. (2012). *Research Ethics: a Philosophical Guide to the Responsible Conduct of Research*, Cambridge: Cambridge University Press.

Connelly, S. (2007). "Mapping sustainable development as a contested concept", *The International Journal of Justice and Sustainability*, **12**(3), 259-278. Available online at: http://www.ftf.lth.se/fileadmin/ftf/ Course_pages/Faff15/Filer/Connelly_2007.pdf [accessed 1 April 2015].

Constructing Excellence (2004). "Lean construction factsheet". Available online at: http://www.constructingexcellence.org.uk/pdf/fact_sheet/lean.pdf [accessed 20 April 2012].

Costello, A., Abbas, M., Allen, A., Antonio, J., Ball, S., Bell, S., Bellamy, R., Friel, S., Groce, N., Johnson, A., Kett, M., Lee, M., Levy, C., Maslin, M., McCoy, D., McGuire, B., Montgomery, H., Napier, D., Pagel, C., Patel, J., de Oliviera, P., Redclift, N., Rees, H., Rogger, D., Scott, J., Stephenson, J., Twigg, J., Wolff, J. & Patterson, C. (2009). "Managing the health effects of climate change", *The Lancet*, **373**(16), 1693-1733.

Cotton, D.R.E., Warren, M.F., Maiboroda, O. & Bailey, I. (2007). "Sustainable development, higher education and pedagogy: a study of lecturers' beliefs and attitudes", *Environmental Education Research*, **13**(5), 579-597.

Crow, G., Wiles, R., Heath, S. & Charles, V. (2006). "Research ethics and data quality: the implications of informed consent", *International Journal of Social Research Methodology*, **9**(2), 83-95.

D'Andrea, L.M., Waters, C. & Rudd, R. (2011). "Using computer assisted qualitative software (CAQDAS) to evaluate a novel teaching method for introductory statistics", *International Journal of Technology in Teaching and Learning*, **7**(1), 48-60.

Davidson, M. (2010). "Introduction to the Centre for Sustainable Chemical Technologies (CSCT)". Available online at: http://www.bath.ac.uk/ csct/research/assets/csct-intro-presentation.pdf [accessed 10 February 2010].

Dawe, G., Jucker, R. & Martin, S. (2005). *Sustainability Literacy in Higher Education: Current Practice and Future Developments*, London: The Higher Education Academy, U.K.

DiCicco-Bloom, B. & Crabtree, B.F. (2006). "The qualitative interview", *Medical Education*, **40**(4), 314-321.

Dicken, P. (2003). *Global Shift: Reshaping the Global Economic Map in the 21st Century*, London: Sage.

DoH (2001). *Working Together, Learning Together: a Framework for Lifelong Learning for the NHS.* Available online at: www.dh.gov.uk/en/ Publicationsandstatistics/Publications/Publications/PolicyAndGuidanc e/DH_4009558 [accessed 6 October 2009].

DoH (2010a). *Health Effects of Climate Change in the UK*. Available online at: http://www.climatenorthernireland.org.uk/cmsfiles/resources/files/Heal th-Efffects-of-Climate-Change-in-the-UK_Department-of-Health.pdf [accessed 30 April 2010].

DoH (2010b). *Front Line Care: the Future of Nursing and Midwifery in England. Report of the Prime Minister's Commission on the Future of Nursing and Midwifery in England 2010*, London: Department of Health.

Dowling, M. (2006). "Approaches to reflexivity in qualitative research", *Nurse Researcher*, **13**(3), 7-21.

Dreher, M. & MacNaughton, N. (2002). "Cultural competence in nursing: foundation or fallacy?", *Nursing Outlook*, **50**, 181-186.

Eagle, K.A., Garson, A.J. Jnr., Beller, G.A. & Sennett, C. (2003). "Closing the gap between science and practice: the need for professional leadership", *Health Affairs*, **22**(2), 196-201.

Ereaut, G. (2010). *What is Qualitative Research?* Available online at: http://www.qsrinternational.com/what-isqualitative-research.aspx [accessed 22 December 2013].

Errington, E.P. (2011). "Mission possible; using near-world scenarios to prepare graduates for the professions", *International Journal of Teaching and Learning in Higher Education*, **23**(1), 84-91.

Etherington, K. (2004). "Research methods: reflexivities - roots, meanings, dilemmas", *Counselling and Psychotherapy Research*, **4**(2), 46-47.

European Commission High Level Group on the Modernisation of Higher Education (2013). *High Level Group on the Modernisation of Higher Education Report to the European Commission on Improving the Quality of Teaching and Learning in Europe's Higher Education Institutions, June 2013*. Available online at: http://ec.europa.eu/ education/library/reports/modernisation_en.pdf [accessed 10 April 2014].

Fara, S.L., Miller, E.T. & Hodgson, E. (2015). "Virtual reality disaster training: translation to practice", *Nurse Education in Practice*, **15**, 53-57.

Finlay, L. (2002). "'Outing' the researcher: the provenance, process and practice of reflexivity", *Qualitative Health Research*, **12**(4), 531-545.

Finlay, L. (2008). "Reflecting on 'reflective practice'". PBPL paper 52: a discussion paper prepared for PBPL CETL. Available online at: www.open.ac.uk/pbpl [accessed 23 April 2015].

Fleurbaey, M. (1995). "Equality and Responsibility", *European Economic Review*, **39**, 683-689.

Foncesta de Andrade, D. (2011). "Challenging the focus of ESD: a southern perspective of ESD guidelines", *Journal for Sustainable Development*, **5**(1), 141-146.

Fossey, E., Harvey, C., McDermott, F. & Davidson, L. (2002). "Understanding and evaluating qualitative research", *Australian and New Zealand Journal of Psychiatry*, **36**:717-732.

Foster, J. (2001). "Education as sustainability", *Environmental Education Research*, **7**(2), 153-165.

Francis, R. (2013). "Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry, February 2013, Executive Summary". Available online at: http://www.midstaffspublicinquiry.com/sites/default/files/report/ Executive%20summary.pdf [accessed 1 March 2013].

Furman, R. (2004). "Using poetry and narrative as qualitative data: exploring a father's cancer through poetry", *Families, Systems and Health*, **22**(2), 162-170.

Galuska, L. (2012). "Cultivating nursing leadership for our envisioned future", *Advances in Nursing Science*, **35**(4), 333-345.

Garet, M.S., Porter, A.C., Desimone, L., Birman, B.F. & Yoon, K.S. (2001). "What makes professional development effective? Results from a national sample of teachers", *American Educational Research Journal*, **38**, 915-945.

Giddens, A. (1976). *New Rules of Sociological Method*, London: Hutchinson.

Ginsburg, L. & Tregunno, D. (2005). "New approaches to interprofessional education and collaborative practice: lessons from the organizational change literature", *Journal of Interprofessional Care*, supplement 1, 177-187.

Giorgi, A. (2000). "The status of Husserlian phenomenology in caring research", *Scandinavian Journal of Caring Science*, **14**, 3-10.

Given, L.M. (2008). *The Sage Encyclopaedia of Qualitative Research Methods*; *Reflexivity*. Available online at: http://knowledge.sagepub.com/view/research/n377.xml [accessed 12 February 2013].

Goodman, B. (2011). "The need for a 'sustainability curriculum' in nurse education", *Nurse Education Today*, **31**(8), 733-737.

Goodman, B. & East, L. (2014). "'The sustainability lens': a framework for nurse education that is 'fit for the future'", *Nurse Education Today*, **34**, 100-103.

Goodman, B. & Richardson, J. (2010). "Climate change sustainability and health in the United Kingdom higher education". In: P. Jones, D. Selby & S. Sterling (eds.) (2010). *Sustainability Education Perspectives and Practice Across Higher Education*, Chapter 7, London: Earthscan.

Gray, D.E. (2009). *Doing Research in the Real World*, 2nd edn., London: Sage.

Guba, E.G. (1981). "Criteria for assessing the trustworthiness of naturalistic inquiries", *Educational Resources Information Centre Annual Review Paper*, **29**, 75-91.

Guba, E.G. & Lincoln, Y.S. (2000). "Paradigmatic controversies, contradictions and emerging confluences". In: N.K. Denzin & Y.S. Lincoln (eds.) (2000). *Handbook of Qualitative Research*, 2nd edn., London: Sage, pp.163-188.

Hall, C. & Ritchie, D. (2009). *What is Nursing? Exploring Theory and Practice*, 2nd edn., London: Learning Matters.

Hammersley, M. (2008). *Questioning Qualitative Inquiry. Critical Essays*, London: Sage.

Hardin, C. & Higgins, E.T. (1996). "Shared reality: how social verification makes subjective objective". In: R.M. Sorrentino & E.T. Higgins (eds.) (1996). *Handbook of Motivation and Cognition*, Volume 3, New York: Guilford Press, pp.28-84.

Harrell, M.C. & Bradley, M.A. (2009). "Data collection methods: semi-structured interviews and focus groups". Available online at: http://www.rand.org/content/dam/rand/pubs/technical_reports/2009/RAND_TR718.pdf [accessed 14 April 2015].

Hasselgren, B. & Beach, D. (1997). "Phenomenography: a 'good for nothing brother' of phenomenology? Outline of an analysis", *Higher Education Research and Development*, **16**(2), 191-202.

HEA/QAA (2014). "Education for sustainable development: guidance for UK higher education providers", June 2014, Higher Education Academy and Quality Assurance Agency for Higher Education. Available online at: http://www.qaa.ac.uk/en/Publications/Documents/Education-sustainable-development-Guidance-June-14.pdf [accessed 1 April 2015].

Heath, H. (1998). "Reflections and patterns of knowing", *Journal of Advanced Nursing*, **27**, 1054-1059.

Hegarty, K. (2008). "Shaping the self to sustain the other: mapping impacts of academic identity in education for sustainability", *Environmental Education Research*, **14**, 681-692.

Heller, B.R., Oros, M.T. & Durney-Crowley, J. (2000). "The future of nursing education: ten trends to watch". National League for Nursing. Available online at: http://www.nln.org/nlnjournal/infotrends.htm [accessed 9 October 2013].

Horsburgh, D. (2003). "Evaluation of qualitative research", *Journal of Clinical Nursing*, **12**(2), 307-312.

Hubley, J. & Copeman, J. (2008). *Practical Health Promotion*, 2nd edn., Cambridge: Polity Press.

Hummel, C. (1999). "Aristole 384-322 BC". International Bureau of Education, UNESCO. Available online at: http://www.ibe.unesco.org/publications/ ThinkersPdf/aristote.pdf [accessed 3 July 2013].

ICAEW (2011). "Information technology faculty, building trust in the digital age: re-thinking privacy, property and security". Available online at: http://www.icaew.com/~/media/archive/files/technical/information-technology/business-systems-and-software-selection/making-information-systems-work/building-trust-in-the-digital-age-report.pdf [accessed 1 February 2014].

ICN (2000). "International Council for Nurses 2000 on nursing and development: policy background paper", Geneva: ICN.

ICN (2014). "Definition of nursing". Available online at: http://www.icn.ch/who-we-are/icn-definition-of-nursing/ [accessed 15 April 2015].

Institute of Medicine (2010). *A Summary of the February 2010 Forum on the Future of Nursing: Education*, Washington, D.C.: The National Academies Press.

IPCC (2007). *Climate Change - the Physical Science Basis: Summary for Policymakers*, Intergovernmental Panel on Climate Change, Geneva: IPCC Secretariat.

IPCC (2014). *Climate Change 2014: Impacts, Adaptation, and Vulnerability: Summary for Policymakers*, Intergovernmental Panel on Climate Change Working Group 11. Available online at: http://ipcc-wg2.gov/AR5/images/uploads/IPCC_WG2AR5_SPM_Approved.pdf [accessed 2 March 2014].

James, C.R. (2007). "Collaborative practice: the basis of good educational work", *Management in Education*, **21**, 32-37.

Jarvis, P. (2001). *Universities and Corporate Universities, the Higher Learning Industry in Global Society*, Sterling, Vancouver: Stylus Publishing.

Johannson, B., Fogelberg-Dahm, M. & Wadensten, B. (2010). "Evidence-based practice: the importance of education and leadership", *Journal of Nursing Management*, **18**, 70-71.

Johns, C. (1995). "Framing learning through reflection within Carper's fundamental ways of knowing in nursing", *Journal of Advance Nursing*, **22**(2), 226-234.

Jones, A. (2006). "Multidisciplinary team working: collaboration and conflict", *International Journal of Mental Health Nursing*, **15**, 19-28.

Kagawa, F. & Selby, D. (eds.) (2010). *Education and Climate Change: Living and Learning in Interesting Times*, Oxford: Routledge.

Kaiser, K. (2009). "Protecting respondent confidentiality in qualitative research", *Qualitative Health Research*, **19**(11), 1632-1641.

Kember, D., Ho, A. & Hong, C. (2008). "The importance of establishing relevance in motivating student learning", *Active Learning in Higher Education*, **9**(3), 249-263.

Kemmis, S. & Smith, T.J. (2008). *Enabling Praxis: Challenges for Education*, Rotterdam: Sense Publishers.

Kinsella, E.A. & Whiteford, G.E. (2009). "Knowledge generation and utilisation in occupational therapy: towards epistemic reflexivity", *Australian Occupational Therapy Journal*, **56**, 249-258.

Kirk, M. (2002). "The impact of globalization and environmental change on health: challenges for nurse education", *Nurse Education Today,* **22**, 60-71.

Kleffel, D. (1996). "Environmental paradigms: moving toward an ecocentric perspective", *Advances in Nursing Science*, **18**(4), 1-10.

Kvale, S. (1996). *Interviews: an Introduction to Qualitative Research Interviewing*, London, Sage.

Kvale, S. (2007). *Doing Interviews*, London: Sage.

Larsson, J. & Holmström, I. (2007). "Phenomenographic or phenomenological analysis: does it matter? Examples from a study on anaesthesiologists' work", *International Journal of Qualitative Studies on Health and Wellbeing*, **2**(1), 55-64.

Le Heron, R., Baker, R. & McEwen, L. (2006). "Co-learning: re-linking research and teaching in geography", *Journal of Geography in Higher Education*, **30**(1), 77-87.

Leiba, T. (2004). "User and carer involvement in interprofessional post-qualifying education and training". In: S. Glen & T. Leiba (2004). *Interprofessional Post Qualifying Education for Nurses: Working Together in Health and Social Care*, Chapter 2, Basingstoke: Palgrave Macmillan, pp.16-27.

Leiba, T. (2013). "Involving BME users", *Nursing Standard*, **28**(5), 27.

Lindh, I.B., Severinsson, E. & Berg, A. (2007). "Moral responsibility: a relational way of being", *Nursing Ethics*, **14**(2), 129-140.

Longley, M., Shaw, C. & Dolan, G. (2007). *Nursing: Towards 2015. Alternative Scenarios for Healthcare, Nursing and Nurse Education in the UK in 2015*, Pontypridd, Wales: Welsh Institute for Health and Social Care, University of Glamorgan, Pontypridd, Wales.

LSBU (2014). *Corporate Strategy: 2015-2020*, London: London South Bank University.

Lundegård, I. & Wickman, P. (2007). "Conflicts of interest: an indispensable element of education for sustainable development", *Environmental Education Research*, **13**(1), 1-15.

Mackintosh, C. (1998). "Reflection: a flawed strategy for the nursing profession", *Nurse Education Today*, **18**, 553-557.

Mann, K., Gordon, J. & MacLeod, A. (2009). "Reflection and reflective practice in health professions education: a systematic review", *Advances in Health Sciences Education*, **14**(4), 595-621.

Mantzoukas, S. (2004). "A review of evidence-based practice, nursing research and reflection: levelling the hierarchy", *Journal of Clinical Nursing*, **17**(2), 214-223.

Mantzoukas, S. & Jasper, M.A. (2004). "Reflective practice and daily ward reality: a covert power game", *Journal of Clinical Nursing*, **13**(8), 925-933.

Martino-Maze, C.D. (2005). "Registered nurses' personal rights vs. professional responsibility in caring for members of underserved and disenfranchised populations", *Journal of Clinical Nursing*, **14**(5), 546-554.

Marton, F. & Booth, S. (1997). *Learning and Awareness*, Mahwah, New Jersey: Lawrence Erlbaum Associates.

Marton, F. & Pong, W. (2005). "On the unit of description in phenomenography", *Higher Educational Research*, **19**(3), 335-348.

Marton, F. & Säljö, R. (1976a). "On qualitative differences in learning. 1 - outcome and process", *British Journal of Educational Psychology*, **46**, 4-11.

Marton, F. & Säljö, R. (1976b). "On qualitative differences in learning. 2 - outcome as a function of the learner's conception of the task", *British Journal of Educational Psychology*, **46**, 115-127.

Marton, F. (1981). "Phenomenography: describing conceptions of the world around us", *Instructional Science*, **10**, 177-200.

Marton, F. (1986). "Phenomenography: a research approach to investigating different understandings of reality", *Journal of Thought*, **21**(3), 28-49.

Marton, F. (1988). "Phenomenography: exploring different conceptions of reality". In: D.F. Fetterman (ed.) (1988). *Qualitative Approaches to Evaluation in Education, the Silent Scientific Revolution*, New York: Praeger, pp.176-205.

Marton, F. (2000). "The structure of awareness". In: J. Bowden & E. Walsh (eds.) (2000). *Phenomenography*, Melbourne: RMIT University Press, pp.102-116.

Marton, F., Dall'Alba, G. & Beaty, E. (1997). "Conceptions of learning", *International Journal of Educational Research*, **19**(3), 277-300.

Mason, M. (2010). "Sample size and saturation in PhD studies using qualitative interviews", *FQS Forum: Qualitative Social Research*, **11**(3).

Mastrangelo, A., Eddy, E.R. & Lorenzet, S.J. (2004). "The importance of personal and professional leadership, *The Leadership and Organisation Development Journal*, **25**(5), 435-451.

Mayer, J.D., Salovey, P. & Caruso, R. (2012). "The validity of the MSCEIT: additional analyses and evidence", *Emotion Review*, **4**, 403-408.

McGregor, S.L.T. & Murnane, J.A. (2010). "Paradigm, methodology and method: intellectual integrity in consumer scholarship", *International Journal of Consumer Studies*, **34**, 419-427.

McKeown, R. & Hopkins, C.A. (2003). "EE ≠ ESD: diffusing the worry", *Environmental, Education Research*, **9**(1), 117-128.

McKeown, R. & Hopkins, C. (2007). "Moving beyond the EE and ESD disciplinary debate in formal education", *Journal of Education for Sustainable Development*, **7**(1), 17-26.

McMichael, A.J. & Beaglehole, R. (2000). "The changing global context of public health", *Lancet*, **356**, 495-499.

McMichael, A.J., Woodruff, R.E. & Hales, S. (2006). "Climate change and human health: present and future risks", *Lancet*, **367**, 859-869.

Mietzner, D. & Reger, G. (2005). "Advantages and disadvantages of scenario approaches for strategic foresight, *International Journal of Technology and Planning*, **1**(2), 220-234.

Mills, J., West, C., Langtree, T., Usher, K., Henry, R., Chamberlain-Salaun, J. & Mason, M. (2014). "'Putting it together': unfolding case studies and high fidelity simulation in the first year of an undergraduate nursing curriculum", *Nurse Education Practice*, **14**(1), 12-17.

Morgan, A.K. & Drury, V.B. (2003). "Legitimising the subjectivity of human reality through qualitative research method, the qualitative report". Available online at: http://www.nova.edu/ssss/QR/QR8-1/morgan.html [accessed 13 October 2013].

Morrow, E. (2009). "Teaching critical reflection in healthcare professional education". Available online at: http://www.kcl.ac.uk/study/learning teaching/kli/research/hern/hern-j1/elizabethmorrow-hernjvol1.pdf [accessed 10 April 2015].

Nelson Laird, T.F., Shoup, R., Kuh, G.D. & Schwarz, M.J. (2008). "The effects of discipline on deep approaches to student learning and college outcomes", *Research in Higher Education*, **49**, 469-494.

NHSSDU (2009). *Saving Carbon, Improving Health, NHS Carbon Reduction Strategy for England*, London: National Health Service Sustainable Development Unit.

NICE (2011). *Diabetes In Adults Quality Standard: Quality Standard 6.* Available online at: http://www.nice.org.uk/guidance/qs6/resources/guidance-diabetes-in-adults-quality-standard-pdf [accessed 14 May 2015].

Nikel, J. (2007). "Making sense of education 'responsibly': findings from a study of student teachers' understanding(s) of education, sustainable development and education for sustainable development", *Environmental Education Research*, **13**(5), 545-564.

NMC (2008). *The Code: Standards of Conduct, Performance and Ethics for Nurses and Midwives.* Nursing and Midwifery Council. Available online at: http://www.nmc-uk.org/documents/standards/the-code-A4-20100406.pdf [accessed 6 January 2011].

NMC (2009). *Nursing and Midwifery Order SI 2002/235 Consolidated Text. The Nursing and Midwifery Order 2001. Statutory Instrument 2002 No. 253*, Nursing and Midwifery Council. Available online at: http://www.nmc-uk.org/Documents/Legislation/Nursing-and-Midwifery -Order-2001-Consolidated-text-effective-from-20090514.pdf [accessed 23 October 2011].

NMC (2010). *Standards for Pre-registration Education*. Nursing and Midwifery Council. Available online at: http://standards.nmc-uk.org/PublishedDocuments/Standards%20for%20pre-registration% 20nursing%20education%2016082010.pdf [accessed 6 January 2011].

NMC (2013). *NMC Response to the Francis Report: The Response of the Nursing and Midwifery Council to the Mid-Staffordshire NHS Foundation Trust Public Inquiry Report; 18 July 2013.* Nursing and Midwifery Council. Available online at: http://www.nmc-uk.org/Documents/Francis%20report/NMC%20response%20to%20the%20Francis%20report%2018%20July.pdf [accessed 8 September 2013].

NMC (2015). *The Code: Professional Standards of Practice and Behaviour for Nurses and Midwives.* Nursing and Midwifery Council. Available online at: http://www.nmc-uk.org/code [accessed 3 March 2015].

Norrie, P. & Dalby, D. (2007). "How adult are our learners?", *Journal of Research in Nursing*, **12**(4), 319-328.

Oates, J. (2015). "Use of Skype in interviews: the impact of the medium in a study of mental health nurses", *Nurse Researcher*, **22**(4), 13-17.

Oliver, P. (2014). *Study Skills: Writing your Thesis*, 3rd edn., London: Sage.

Orgill, M.K. (2002). *Phenomenography*, Available online at: http://www.minds.may.ie/~dez/phenom.html [accessed 8 January 2010].

Ornek, F. (2008). "An overview of a theoretical framework of phenomenography in qualitative education research: an example from physics education research", *Asia-Pacific Forum on Science Learning and Teaching*, **9**(11), article 2, 1.

Orr, D. (1996). "What Is education for? Six myths about the foundations of modern education, and six new principles to replace them". Available online at: http://www.context.org/iclib/ic27/orr/ [accessed 4 January 2011].

Oxford English Dictionary (2011). *Oxford English Dictionary*, 2nd edn., Oxford: Oxford University Press.

Oxford Learners Dictionary (2014). Available online at: http://www.oxfordlearnersdictionaries.com/definition/english/globalizat ion#globalization__5 [accessed 3 September 2014].

Parahoo, K. (2006). *Nursing Research: Principles, Process and Issues*, 2nd edn., Basingstoke: Palgrave, Macmillan.

Parahoo, K. (2014). *Nursing Research: Principles, Process and Issues*, 3rd edn., Basingstoke: Palgrave, Macmillan.

Patton, M.O. (2002). *Qualitative Research and Evaluation Methods*, 3rd edn., London: Sage.

Pope, C., Ziebland, S. & Mays, N. (2000). "Analysing qualitative data", *British Medical Journal*, **320**, 114-116.

Pratt, C. (2000). "Alleviating global poverty or enhancing security: competing rationales for Canadian development assistance". In: F. Freedman (ed.) (2000). *Transforming Development: Foreign Aid for a Changing World*, Toronto: University of Toronto Press, pp.37-60.

Public Health England (2014). "Minimum home temperature thresholds for health in winter - a systematic literature review". Available online at: https://www.gov.uk/government/uploads/system/uploads/attachment_ data/file/365755/Min_temp_threshold_for_homes_in_winter.pdf [accessed 1 April 2015].

QAA (2001). *Promoting Higher Quality: Nursing*. Quality Assurance Agency for Higher Education. Available online at: http://www.qaa.ac.uk/ Publications/InformationAndGuidance/Documents/nursing.pdf [accessed 14 February 2009].

QAA (2012). *Learning and Teaching of the UK Quality Code for Higher Education.* Chapter B3. Available online at: www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/quality-code-B3.aspx [accessed 8 April 2015].

Quine, W.V. (1954). "Carnap and logical truth. The philosophy of Rudolf Carnap". In: G. Sher (2010). *Epistemic Friction: Reflections on Knowledge, Truth and Logic*, Erkenn: Springer, pp.151-176.

Quinn, F. & Hughes, S. (2007). *Principles and Practice of Nurse Education*, London: Nelson Thornes.

RCN (2003). "Defining nursing". Royal College of Nursing. Available online at: http://www.rcn.org.uk/_data/assets/pdf_file/0003/78564/001983.pdf [accessed 3 March 2010].

RCN (2009). "RCN response to the review of leadership in the NHS". Available online at: https://www.rcn.org.uk/__data/assets/pdf_file/0008/425096/ 84.11_ Review_of_Leadership_in_the_NHS.pdf [accessed 3 November 2013].

RCN (2013). "Mid Staffordshire NHS Foundation Trust Public Inquiry Report: response of the Royal College of Nursing. July 2013", London: Royal College of Nursing.

RCN (2014). "Leadership". Royal College of Nursing. Available online at: http://www.rcn.org.uk/development/practice/clinical_governance/lead ership [accessed 11 March 2014].

Reason, R.D., Cox, B.E., McIntosh. K. & Terenzini, P.T. (2010). "Deep learning as an individual, conditional, and contextual influence on first-year student outcomes". Paper presented at the Annual Forum of the Association for Institutional Research, Chicago, Illinois, 31 May 2010.

Redman, L.V & Mory, A.V.H. (2009). *The Romance of Research*, Baltimore: Williams and Wilkins.

Richardson, J. & Wade, M. (2010). "Public Health Threats in a changing climate: meeting the challenges through sustainable health education". In: F. Kagawa & D. Selby (eds.) (2010). *Education and Climate Change: Living and Learning in Interesting Times*, chapter 11, Oxford: Routledge, pp.197-214.

Richardson, J., Grose, J., Doman, M. & Kelsey, J. (2014). "The use of evidence-informed sustainability scenarios in the nursing curriculum: development and evaluation of teaching methods", *Nurse Education Today*, **34**, 490-493.

Ried, A. & Petocz, P. (2006). "University lecturers' understanding of sustainability". *Higher Education*, **54**, 105-123.

Ritchie, J. & Lewis, J. (2003). *Qualitative Research Practice: a Guide for Social Science Students and Researchers*, London: Sage.

Ritchie, J. & Lewis, J. (2014). *Qualitative Research Practice: a Guide for Social Science Students and Researchers*, 2nd edn., London: Sage.

Roy, C. (2011). "Extending the Roy adaptation model to meet changing global needs", *Nursing Science Quarterly*, **24**(4), 345-351.

Saldanã, J. (2013). *The Coding Manual for Qualitative Researchers*, 2nd edn., Arizona State University: Sage.

Scott, P. (2000). "Globalisation and higher education: challenge for the 21st century", *Journal of Studies in International Education*, **4**, 3-10.

Scott, W. (2002). "Sustainability and learning: what role for the curriculum?". Available online at: http://www.bath.ac.uk/cree/resources/scott.pdf [accessed 10 November 2013].

Shenton, A.K. (2004). "Strategies for ensuring trustworthiness in qualitative research projects", *Education for Information*, **22**(2), 63-75.

Shorten, A. & Moorely, C. (2014). "Selecting the sample", *Evidence Based Nursing*, **17**, 32-33.

Silverman, D. (2011). *Interpreting Qualitative Data*, London: Sage.

Sin, S. (2010). "Considerations of quality in phenomenographic research", *International Journal of Qualitative Methods*, **9**(4), 305-319.

Sjöström, B. & Dahlgren, L.O. (2002). "Applying phenomenography in nursing research", *Journal of Advanced Nursing*, **40**, 339-345.

Sleurs, W. (ed) (2008). *Competencies for ESD (Education for Sustainable Development) Teachers. A Framework to Integrate ESD in the Curriculum of Teacher Training Institutes.* The Comenius 2.1 project 118277-CP-1-2004-BE-Comenius-C2.1 ESD curricula and outcome, Brussels: Ministry of Education and Formation, Ministry of the Flemish Community.

Snelgrove, S.R. (2014). "Conducting qualitative longitudinal research using interpretative phenomenological analysis", *Nurse Researcher*, **22**(1), 20-25.

Solomon, S., Plattner, G-K., Knutti, R. & Friedlingstein, P. (2009). "Irreversible climate change due to carbon dioxide emissions", *Proceedings of the National Academy of Sciences of the United States of America*, **106**(6), 1704-1709.

Sonnemann, U. (1954). *Existence and Therapy: an Introduction to Phenomenological Psychology and Existential Analysis*, New York: Grune and Stratton.

Soulé, I. (2014). "Cultural competence in health care: an emerging theory", *Advances in Nursing Science*, **37**(1), 48-60.

Sterling, S. (1992). *Good Earth-Keeping, Education, Training and Awareness for a Sustainable Future*, London: UNEP-UK.

Sterling, S. (2001). S*ustainable Education-Revisioning Learning and Change*, Schumacher Briefings 6, Dartington, USA: Green Books.

Stibbe, A. (ed.) (2009). *The Handbook of Sustainable Literacy*, Dartington, Washington State University: Green Books.

Stonehouse, D. (2013). "Resistance to change: the organisation dimension", *British Journal of Health Assistants*, **7**(3), 150-151.

The Free Dictionary (2014). Available online at: http://www.thefreedictionary. com/-graphy [accessed 15 March 2014].

Thomas, I., Hegarty, K. & Holdsworth, S. (2012). "Education for sustainability jig-saw implementation in universities", *Creative Education, Scientific Research*, **3**, Special Issue, 840-846.

Tomcho, T.J. & Foels, R. (2012). "Meta-analysis of group learning activities: empirically based teaching recommendations", *Teaching of Psychology*, **39**(3), 159-169..

Tong, A., Sainsbury, P. & Craig, J. (2007). "Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups", *International Journal for Quality in Health Care*, **19**(6), 349-357.

Trigwell, K. (2000). "A phenomenographic interview on phenomenography". In: J.A. Bowden & E. Walsh (eds.) (2000). *Phenomenography*, Melbourne: RMIT, pp.62-82.

Trigwell, K. & Prosser, M. (1996). "Changing approaches to teaching: a relational perspective", *Studies in Higher Education*, **21**, 275-284.

Tuning (2009). "Tuning educational structures in Europe: reference points for the design and delivery of degree programmes in nursing. Available online at: http://www.unideusto.org/tuningeu/images/stories/key_documents/tuningnursingfinal.pdf [accessed 10 November 2013].

UN (1987). *Report of the World Commission on Environment and Development: Our Common Future*. Available online at: http://conspect.nl/pdf/Our_Common_Future-Brundtland_Report_1987.pdf [accessed 2 March 2009].

UN (2002). *Education: Education for Sustainable Development (ESD)*. United Nations. Available online at: http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/education-for-sustainable-development/ [accessed 1 November 2011].

UNESCO United Kingdom Commission (2010). *Education for Sustainable Development in the UK in 2010*. Available online at: http://www.unesco.org.uk/uploads/UNESCO_educationforsustainable dev_2010_web.pdf [accessed 3 January 2011].

UNICEF (2000). "Defining quality in education". Paper presented by UNICEF at the meeting of The International Working Group on Education Florence, Italy June 2000. Available online at: http://www.unicef.org/education/files/QualityEducation.pdf [accessed 2 November 2012].

Vardoulakis, S., Dear, K., Hajat, S., Heaviside, C., Eggen, B. & McMichael, A.J. (2014). "Comparative assessment of the effects of climate change on heat- and cold-related mortality in the United Kingdom and Australia". Available online at: http://ehp.niehs.nih.gov/wp-content/uploads/ 122/12/ehp.1307524.alt.pdf [accessed 1 April 2015].

von Schirnding, Y. (2005). *The World Summit on Sustainable Development: Reaffirming the Centrality of Health*. Available online at: http://www.globalizationandhealth.com/content/1/1/8 [accessed 1 April 2015].

Wade, R. & Parker, J. (2008). "EFA-ESD dialogue: educating for a sustainable world. Education for Sustainable Development Policy Dialogue No 1". Available online at: http://unesdoc.unesco.org/images/0017/001780/ 178044e.pdf [accessed 4 January 2011].

Walker, C. (1998). "Learning to learn, phenomenography and children's learning", *Educational and Child Psychology*, **15**, 25-33.

Wals, A.E.J. & Jickling, B. (2002). "'Sustainability' in higher education: from doublethink and newspeak to critical thinking and meaningful learning", *International Journal of Sustainability in Higher Education*, **3**(3), 221-232.

Walsh, C. (2012). "What's the difference between higher education and further education?". Available online at: http://lcp.org.uk/index.php/2012/03/whats-difference-between-higher-education-further-education/ [accessed 3 July 2013].

Walsh, E. (2000). "Phenomenographic analysis of interview transcripts". In: Bowden, J.A. & Walsh, E. (eds.) (2000). *Phenomenography*, Chapter 2, Melbourne: RMIT University Press, pp.19-33.

Warwick, P. (2007). "Hearing pupils' voices: revealing the need for citizenship education within primary schools", *Education*, **35**(3), 261-272.

Watson, R., McKenna, H., Cowman, S. & Keady, J. (eds.) (2008). *Nursing Research: Designs and Methods*, Edinburgh: Churchill Livingstone, Elsevier.

Webb, G. (1997). "Deconstructing deep and surface: towards a critique of phenomenography", *Higher Education*, **33**, 195-212.

Wells, N.M. (2005). "Our housing, ourselves: a longitudinal investigation of low-income women's participatory housing experiences", *Journal of Environmental Psychology*, **25**, 189-206.

Welsh, E. (2002). "Dealing with data: using NVivo in the qualitative data analysis process", *Forum: Qualitative Social Research, Sozialforschung*, **3**(2). Also available online at: http://www.qualitative-research.net/index.php/fqs/article/view/865/1880 [accessed 7 June 2015].

WHO (1997). *Health and Environment in Sustainable Environment. Five Years after the Earth Summit*, Geneva, World Health Organisation.

WHO (2006). *Constitution of the World Health Organisation, Basic Documents*, 45th edn., Supplement, October, Geneva: World Health Organisation.

WHO (2007). *The World Health Report 2007. A Safer Future: Global Public Health Security in the 21st Century*, Geneva: World Health Organisation.

WHO (2010). *Global status Report on Noncommunicable Diseases 2010*. World Health Organisation. Available online at: http://www.who.int/ nmh/publications/ncd_report_full_en.pdf [accessed 23 March 2011].

Wilson, M. (2005). *Descartes*, London: Routledge and Kegan Paul.

Wood, D.F. (2003). "Problem based learning", *British Medical Journal*, **326**(7384), 328-330.

Woods, M. (2005). "Nursing ethics education: are we really delivering the good(s)?", *Nursing Ethics*, **12**(1), 5-18.

Wordinfo (2014). Online dictionary. Available online at: http://wordinfo.info/unit/1463/s:technology [accessed 15 March 2014].

Zayyan, M. (2011). "Objective structured clinical examination: the assessment of choice", *Oman Medical Journal*, **26**(4), 219-222.

Zeigler, D. (2008). "Relevance in education?", *Evolution, Education and Outreach*, **1**(4), 517-519.

BIBLIOGRAPHY

Bassey, M. (1999). *Case Study Research in Educational Settings,* Milton Keynes: Open University Press.

Bourn, D. (2005). "Education for sustainable development and global citizenship - the UK perspective", *Applied Environmental Education and Communication*, **4**, 233-237.

Bourn, D. (2008). *Development Education: Debates and Dialogue*, London: Institute of Education.

Campbell, S. (2007). "Green cities, growing cities, just cities? Urban planning and the contradictions of sustainable development". Available online at: http://www-personal.umich.edu/~sdcamp/Ecoeco/Greencities.html [accessed 10 November 2013].

Cousin, G. (2005). "Case study research", *Journal of Geography in Higher Education*, **29**(3), 421-427.

McEwen, M. & Wills, E.M. (2014). *Theoretical Basis for Nursing*, 4th edn., Philadelphia: Wolters Kluwer Health and Lippincott Williams and Wilkins.

National Service Framework for Diabetes (2001). Available online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/198836/National_Service_Framework_for_Diabetes.pdf, [accessed 14 May 2015].

Neill, J. (2005) "John Dewey: philosophy of education". Available online at: http://www.wilderdom.com/experiential/JohnDeweyPhilosophy Education.html [accessed 10 November 2012].

NMC (2009). *Guidance on Professional Conduct: For Nursing and Midwifery Students*. Nursing and Midwifery Council. Available online at: http://www.nmc-uk.org/Documents/Guidance/NMC-Guidance-on-professional-conduct-for-nursing-and-midwifery-students.PDF [accessed 1 March 2010].

NMC Nursing and Midwifery Council (2012). *Nursing and Midwifery Council Fitness to Practise Legislation Guidance Notes*, 31 January, London: Nursing and Midwifery Council.

Pencheon, D. (2009). "Health services and climate change: what can be done?", *Journal of Health Services Research and Policy*, **14**(1), 1-4.

Reed, B. (2006). "Phenomenography as a way to research the understanding by students of technical concepts", Núcleo de PesquisaemTecnologia da Arquitetura e Urbanismo (NUTAU): Technological Innovation and Sustainability, Sao Paulo, Brazil, pp.1-11.

Reeves, S., Freeth, D., Glen, S., Leiba, T., Berridge, E-J. & Hertzberg, J. (2006). "Delivering practice-based interprofessional education to community mental health teams: understanding some key lessons", *Nurse Education in Practice*, **6**(5), 246-253.

Sterling, S. (2004). "Whole systems thinking as a basis for paradigm change in education: explorations in the context of sustainability". Ph.D. thesis, University of Bath.

Sterling, S. & Witham, H. (2008). "Pushing the boundaries: the work of the Higher Education Academy's ESD project", *Environmental Education Research (EER)*, **14**(4), 399-412.

Thomas, E. & Davies, B. (2006). "Nurse teachers' knowledge in curriculum planning and implementation", *Nurse Education Today*, **26**, 572-577.

UNESCO (2010). *Education For All: Global Monitoring Report*. Available online at: http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/efareport/ [accessed 12 October 2011].

World Bank (2003). *Sustainable Development in a Dynamic World: Transforming Institutions, Growth and Quality of Life*, World Bank Group Development Education Program. Available online at: http://wdronline.worldbank.org/worldbank/a/c.html/world_development_report_2003/chapter_2_managing_broader_portfolio_assets/page/10 [accessed 10 November 2011].

World Bank (2011). *Learning for All: Investing in People's Knowledge and Skills to Promote Development*, World Bank Group Development Education Program. Available online at: http://siteresources.worldbank.org/EDUCATION/Resources/ESSU/Education_Strategy_4_12_2011.pdf [accessed 3 March 2013].

Yero, J.L. (2002). "The meaning of education, teacher's mind resources". Available online at: http://www.stoa.org.uk/topics/education/The%20Meaning%20of%20Education.pdf [accessed 3 July 2013].

APPENDICES

Appendix 1: Letter of LSBU Research Ethics Committee Approval

London South Bank University is an exempt charity and a company limited by guarantee.
Registered in England
no. 986761. Registered Office: 103 Borough Road, London SE1 0AA.
Direct line: 020-7815 6024
E-mail: dippenas@lsbu.ac.uk
Ref: UREC 1150
Ms R West

Dear Rosetta

Lecturers' understanding of education for sustainable development: the relevance of education for sustainable development in 21st century nurse education.

Thank you for submitting this proposal and for your response to the reviewers' comments.

I am pleased to inform you that ethical approval has been given by Chair's action on behalf of the University Research Ethics Committee.

I wish you every success with your research.

Yours sincerely,
Sharon Dippenaar
Secretary, LSBU Research Ethics Committee

cc:
Prof Joan Curzio, Chair, LSBU Research Ethics Committee

From: West, Rosetta
Sent: 20 May 2011 08:36
To: Ellis, Judith
Subject: RE: Research approval

Thank you

From: Ellis, Judith
Sent: 20 May 2011 08:33
To: West, Rosetta
Subject: RE: Research approval

You certainly have my support and approval. It looks a fascinating proposal
 Judith
Professor Judith Ellis MBE
Executive Dean
Faculty of Health & Social Care
London South Bank University
103 Borough Road
London SE1 0AA
Tel: +44 (0)20 7815 8091
Email: ellisj9@lsbu.ac.uk

Web Link for the Faculty: http://www.lsbu.ac.uk/hsc/
From: West, Rosetta
Sent: 18 May 2011 15:06
To: Ellis, Judith
Subject: Research approval
Attachments: Information sheet.docx
Dear Judith

My studies (EdD) are continuing as planned and I am now in a position to request
ethical approval to commence data collection. I am hoping that the committee
appreciate the non-invasive and the non-judgemental purpose of the proposed study.

The aim of my study is to examine the current understanding of education for
sustainable development among senior lecturers within the faculty. In addition I hope to
influence a progressive move that addresses its terms explicitly at both educational and
professional levels (within an already progressive curriculum).

Attached is a copy of the information that relates to my intended study for your
information and perusal.

I hope that I have your support and approval.
Yours Sincerely
Rosetta West

Rosetta West
Senior Lecturer
Faculty of Health and Social Care
London South Bank University

From: West, Rosetta
Sent: 18 May 2011 14:52
To: Harris, Deborah Elaine
Cc: Lerman, Stephen
Subject: EdD Dissertation
Attachments: Information sheet.docx

Dear Debbie

My studies (EdD) are continuing as planned and I am now in a position to request ethical approval to commence data collection. I am hoping that the committee appreciate the non-invasive and the non-judgemental purpose of the proposed study.

The aim of my study is to examine the current understanding of education for sustainable development among senior lecturers within the faculty. In addition I hope to influence a progressive move that addresses its terms explicitly at both educational and professional levels (within an already progressive curriculum).

Attached is a copy of the information that relates to my intended study for your information.

I hope that I continue to have your support.

Yours Sincerely

Rosetta West

Appendix 2: Email Invitation to the Study and Participant Pack: Study Information Sheet and Consent Form to Participate in Study

Email Invitation to the Study

Dear……..

You are invited to participate in a study entitled:

Lecturers understanding of education for sustainable development: the **relevance of Education for sustainable development in 21st century Nurse Education**

For further information please read Participation Information sheet below and contact me by return email.

Kind Regards

Rosetta

Participant Pack: Study Information Sheet

Participant Study Information and invitation Sheet

An invitation to participate in a study entitled:

Lecturers understanding of education for sustainable development:the relevance of Education for sustainable development in 21st century Nurse Education

You are invited to participate and contribute to an exploration of senior lecturers current understanding of education for sustainable development within our Faculty of Health and Social Care and join me in determining its relevance in 21st century Nurse Education. In addition to my dissertation, this invitation offers an opportunity to address this issue within Nurse Education and its application within thought, curricula and delivery. In view of the scarcity of literature, this study has the potential to allow us as a faculty to be ahead in terms of prescribed nursing curricula and the preparation of our students for contemporary practice and education.

Education for sustainable developmentseeks to facilitate the dissemination, sharing and acquisition of the knowledge, values and skills necessary to live now, in the future and in ways that can be sustained without harming the planet, while at the same time enabling continued quality for current and future generations (Sustainable development commission, (http://www.sd-commission.org.uk/ [accessed 07/12/10]).

I have found that to date the subject matter whereby the term **education for sustainable development** exists, difficult to find within the nursing literature in explicit terms. In view of the role of professional nursing practice and the associated nurse education I question this scarcity in terms of its explicit reference/s. The Individual professional's understanding of the term may be a factor affecting its use and reference within the nursing literature, nursing educational standards in the United Kingdom (UK) and within our delivery when teaching and facilitating learning.

In addition, the link between sustainability, health and climate change is widely acknowledged and therefore the need to address the issues (within nursing) in terms of their inter-relations is timely and important within nurse education (Goodman, 2011).

A qualitative approach of phenomenography will be used to inform the study. This will require interviews that may be audio-recorded for transcription and analyses. While audio digital recorded interviews may be more efficient, notes taking may be preferred. Both options can be considered. A pre determined semi structured questionnaire will be used so that everyone being interviewed is allowed the opportunity to address the same initial question.

This invitation is to Senior Lecturers of nurse education because you have a direct influence on curriculum design, teaching and subsequent teaching/ learning within higher education at a local, national and international level. Your contributions and viewpoint are essential in terms of data for analyses, reporting and dissemination.

I wish to recruit 15 participants (Nursing Senior Lecturers) on a 1st come basis so as to remove bias in terms of selection.

Participation in this study is completely voluntary and you are free to **discontinueat any time and at any stage of the study**. While your contributions are valued and critical to this study you are under no obligation to participate at all. I do not anticipate that this study will compromise your practice. On the other hand, our practice may profit in terms of the opportunity to reflect on the issue of education for sustainable development and its application to our curricula and teaching delivery. I anticipate that this dialogue may open avenues of thought, add to current nursing body of knowledge and has the potential togive the faculty and the profession the edge within what is an already progressive curriculum in terms of forward thinking, contemporary delivery, teaching, learning and critical thinking. I do not anticipate that professional boundaries will be compromised in any way in view of the nature of this study. However in the event that a professional boundary is compromised in any way such as a revelation of unsafe practice, University policies and procedures will be followed.

The interview may last for approximately 60 minutes (longer where appropriate).This will depend on what you wish to contribute. I will travel to you, use my office (only when privacy can be assured at the Havering Campus) book a venue and meet with what is convenient for you in terms of the privacy for 1 to 1 interviews, time and venue. I am not in a position to offer financial payment or gifts of any kind.

Audio digital recorded interviews and notes taken will be anonymous, coded to ensure anonymity and be completely confidential. Your identity should you decide to contribute and participate will be known only to me. The audio digital recorded and any papers (other than that used for reporting anonymously within the study) will be held and secured by me in a locked secure draw to which only I have a key and on my password protected computer. These will be *destroyed after 5 years (to allow for data collection, analysis, reporting and follow up writing) by deleting audio-digital recordings and shredding paper/transcribed. Digital recordings stored on my password protected computer will be deleted* (including the emptying of the recycle bin material) and papers shredded in the presence of my supervisor as a witness. All remaining files and including that used for reporting will be deleted and shredded as indicated above at completion and disseminated of the study.

Discussion of the material will be solely with my supervisor and in line with the standards endorsed by London South Bank University, the British educational research association (BERA, 2004) and the Royal college of Nursing (2011). In the event that you do not wish to be audio recorded but still wish to participate, note taking can be considered as mention earlier. To ensure accuracy and clarity of interview material, verification will be done at relevant intervals prior to reporting and analysis. A copy of the final scripted study will be made available for your scrutiny before dissemination of the findings.

In addition, coding (known only to me) will be used to heighten security and confidentiality of the transcribed material. To add to security and confidentiality, I will be using an independent and professional transcribing service that has no links or connections to London South Bank University.

If you have any concerns about any aspect of this study please contact me and I will do my best to clarify issues and answer your questions.

Mrs. Rosetta West
Senior Lecturer
Room 114
Harold Wood Campus
London South Bank University
Havering Campus
Gubbins Lane
Romford
RM3 OBE
Tel: ++44 020 7815 5979 (direct line)
Email: westr@lsbu.ac.uk

In the unfortunate event that you have any concerns with the way in which you have been treated by me, my supervisor's contact details are:

Professor Stephen Lerman
Department of Education
London South Bank University
103 Borough Road
London SE1 0AA
Tel: +44 (0)20 7815 7440
Fax: +44 (0)20 7815 8160
url: https://sites.google.com/site/lermansteve/home
Should you remain unhappy and wish to complain formally, you can do this through the University's Complaints procedure the details of which can be obtained via:

http://www.lsbu.ac.uk/research

References

British Education Research Association (2004) Revised Educational Guidelines for educational research http://www.bera.ac.uk/files/guidelines/ethica1.pdf accessed18/02/11

Goodman, B. (2011) The need for a 'sustainability curriculum' in nurse education. Nurse Education Today (2011), doi:10.1016/j.nedt.2010.12.010 accessed 20 February 2011

Royal College of Nursing (2011) Research Ethics: RCN guidance for nurses http://www.rcn.org.uk/__data/assets/pdf_file/0010/78742/003138.pdf accessed 16/05/11

Sustainable Development Commission, http://www.sd-commission.org.uk/ accessed 07/12/10

Participant Pack: Consent Form

Senior Nursing lecturers' understanding of Education for Sustainable Development: A phenomenographic study:

By initialling the following boxes I am stating that:

1. I confirm that I have read and understand the information sheet for the above study and I have had the opportunity to ask questions. ☐

2. I understand that my participation is voluntary and that I Will be free to withdraw at any time, without giving reason. ☐

3. I agree to take part in the above study. ☐

In so doing

4. I agreed to being interviewed ☐

5. I agreed to the above interview being audio recorded ☐

6. I agreed that anonymous quotes of my audio recorded interview may be used in the dissemination and reporting of this study ☐

Name of the Participant   Date

Signature

Name of the Researcher   Date

Signature

Appendix 3: Researcher's

Semi-structured Inteview Guide

The guide used included the following questions:

1. How would you describe your initial understanding of ESD?
2. Where did you first come across the term?
3. What values do you associate with the term?
4. How have you experienced ESD?
5. How have your current and initial understandings changed over time, if at all?
6. How would you now describe your understanding of ESD?
7. How relevant do you believe ESD is to nurse education?
8. What nursing issues do you consider alongside ESD?
9. How do you use this concept in your practice?
10. How explicit are the terms ESD within your
    (a)   Module Guide?
    (b)   Teaching Plan?
    (c)   Delivery Notes?
11.   How would you consider using ESD explicitly?

Appendix 4: Compilation Phase - Examples of

Participant Responses

Responsibility

INTERVIEWER QUESTION	VERBATIM RESPONSES OF PARTICIPANTS
"…you told me what you understand re the concept of education for sustainable development... Have you come across any literature today that uses the terminology 'education for sustainable development'?Do you think it could be…?"	**Participant 1:** "I wouldn't say that it's very widely… in nursing fields, it's not I think outside nursing yes but inside nursing no…" "Yeah I think so. I mean I think… I guess two things spring to mind. First of all is how we act ourselves as a faculty what we do in terms of sort of being responsible, I guess in terms of the health service I don't think… I'll be very surprised if it's on any of our kind of courses at the moment…" "But I might be wrong there. It's certainly not on my course…" "I think there are enormous issues about sort of how we use resources and how in terms of looking after older people which is one of the biggest users of healthcare services anyway, my worry I guess, would be it seems to me that a lot of things would need to be cut out at a high level and sort of nursing has influence over. I guess there are lots of areas within nursing. I mean I think nursing has also been wasteful of materials …"
"Now how would you transfer that thought... nursing is still part of the society…"	**Participant 2:** "But everybody has their responsibility to play within society as regards to sort of trying to reduce but equally we've got maintenance of things like infection control and things like that…" "But the majority of people aren't like that and will just go wherever they feel they want and…"
"Just reflecting on the units that you run and the sessions that you teach. Would you consider the term education for sustainable development or even some of the inclusions that you put in? Is it there in the delivery. Is it there in your unit	**Participant 3:** "It's not there…" "Not one word of sustainability. I personally try to run, you know deliver a session as part of my unit, looking at globalization in nursing and looking at global challenges in health. I put in my unit even though it wasn't in the unit guide. I felt constrained for my students should become sensitized to the global issues that people are facing today because the world is becoming smaller. So as the world is getting smaller, we will be nursing people from all walks of life and also even at your doorstep there are global challenges that you face. How can you begin to look at

guide even or your module guide?... Give me an example of the issues…"	other people if we have not recognised the ones that are at your doorstep. So I have felt constrained to introduce that but you know, I was pulled up short for that…
	"What about sickle cell… It's a genetic condition that cannot be hidden. People might have managed it where they are but because of how mobile people have become for economic reasons or for whatever reason, they find themselves in a different environment and that can even trigger crisis in them and people don't understand that it is not just giving them water and all that that there is more to managing that patient because of the change of environment. How do we manage this to reduce the frequency of this patient's crisis that they have managed very well in their own locality and for some reason they have become economic migrants in a different place and now they have to face the challenges of sickle crisis and people that don't even understand what they are going through and they can do to help them…"
	"Then suddenly the patient that has been managed on maybe simple analgesia back home comes here because we have a standard, because we have a format of high technologic PCA, automatically finds themselves using PCA opiate analgesia and before we know it the way we manage them on opiate analgesia we don't even wean them off properly. They go home and in a week they're back because they are suffering cold turkey and then you say, oh no they're back again. Yes we are responsible for that but we have not allowed them. We have not managed that crisis properly…"
"…education for sustainable development looking at it from another perspective…"	**Participant 4:** "…it's not just it will be OK if we don't do it, there are consequences if we don't do it pollution wise too…"
	"…but you know, and tied in with that I think it's back to the whole politics and ethics of things like stopping smoking in public places… the greatest good for the greatest number.
	"I think that you have to talk about the fact that we are not just individuals, we don't just operate alone but what we do affects what everybody else does and what everybody else does. So you know, if you think well I'm alright Jack, you know I'm not living on the state or I'm never going to get a job and all of the rest of it and then so don't be surprised if somebody is setting fire to your high street. You know. What do you think is going to happen. Are they going to stay down forever. But that, if you don't want to see this, then you have to think what happens here. If you don't want to be mugged you know. And we can't all operate as innocents either…"
	"I'll tell you what, because I'm a neuro-linguistic programming practitioner and one of the things in NLP is, you know, recognise that people have their own view of the

	world and that you're interacting with somebody who doesn't necessarily see, hear, experience the world like you do so if you want to know how they do, you have to build a rapport and find it out but also the whole thing about finding out if people believe they can change anything and then techniques and approaches to helping people believe that…"
" So in terms of nurse education where does that sit…?" "…what are the advantages of helping people to help themselves	**Participant 5:** "I know that in public health there is this big drive which I suppose you call it sustainable development in that we are trying to get people to be more proactive and to not always be the recipients of care, to be in partnership etc and that is because they are trying to enable something to carry on rather than everything being expert led. So that is one issue that I am aware of. The other issue I suppose in terms of how our public health is going is that it has actually changed a lot... there are lots of issues around that in terms of sustainability because a lot of expertise has been lost… we are kind of losing the wider scope of public health…" "….a lot of it is about helping people to help themselves and then what sustains…." "I suppose the long term. If you look at it in its kind of bigger picture, the long-term advantages are that it should be financially more viable, that people feel that they are part of something, they feel a bit empowered, their self-esteem is raised. People don't particularly want to be dependent etc. It is all of those things…" "And your self-esteem…" "…from the economy point of view that prevention is always better than cure, so ideally people should…" "…for example there is this big kind of public health issue around the burning of forests etc and all the gases it was releasing, but what the other side of that was of course that people were, you know deforestation was because people needed the area to be farmed, they needed to build a golf course and all the other things which helped that particular economy and actually the real issue isn't about somebody burning a forest of its own, it's about the cars and the CO_2 emissions. That's my point. There is this cynical attitude that we can blame some people and keep them in their place but really the bigger public health issues and issues around the economy and sustainability aren't necessarily within the individuals domain anyway…" "But individuals collectively may be able to do something… Public health has always really been about sustainability…" "People don't think of it as a global economy do they and that's part of the problem…" "…we need to start in my opinion, in my humble opinion we

	need to start with maybe looking at how these things are supposed add to the course. Modern workforce and 21st century nursing. We need to address health is not about a physical condition and treatment and hospital. Health is about addressing people's housing, their food supplies, have access and availability to all of these things are health and all of that is about sustainability…"
"I don't hear of nursing colleagues using the term 'sustainable development'…"	"I don't think that you will hear that because, again from my opinion, one of the problems I think with the curriculum as it has been is it has always been quite narrow and there is always this focus on skills and this that and the other…"

"Because it is [the curriculum] very prescriptive and it is a very medical curriculum and what we need to do is look at a much broader concept of health and if we're talking about training nurses to be the forefront of the healthcare system for an evolving healthcare system we need to look at social model of health…" |
| "So again, what do you think of the term education for sustainable development and in particular its relation to nurse education?..." | **Participant 6:** "It is an extremely broad term but where I'm coming from is where nurse education fits within that term. Whether it be the health service in particular but let's face it, nursing doesn't just fit into the health service. It does fit into the national…"

"Taking responsibility for health…"

"Encouraging people to be mindful of their own health and thinking about things like what they eat and exercise…"

"Where nursing education fits in here is that the education that we give the nurses who work in places like the intensive care again has to be up to date. It has to be evidence-based. It has to move on. It has to embrace new skills as new technology is introduced and it's just a whole range of things really cause it is also about how people work and how they manage and good management and their health at work as well…"

"I think it's about demonstrating your commitment…"

"I say, simple things and this sort of goes along washing your hands as well but taking your patient's vital signs and understanding what they mean, how they relate to the condition, at what point do you need to alert somebody and knowing that point, when to alert somebody…"

"Any good practical nurse is thinking about what she is doing. And she is developing what she is doing…"

"…then go back and use it…" |

"So, in as much as you've said that you had never heard the term, education for sustainable development before this interview, you still have quite deep thoughts in relation to education …"	**Participant 7:** "I think nursing has evolved to a position where nurses have begun to climb what I would call the autonomy ladder and they are beginning now to take responsibility for themselves. They're accountable as nurses…" "Well I teach sessions on rights and responsibilities and one of the sessions I do is I ask people what are rights…" "…when I talk to them about the NMC Code of Conduct and we talk about providing care when you're not on duty…" "I don't know if it is about preparation because I think you know the weather forecast tells you that next Monday and Tuesday it might rain, it might snow but I think the problem we have is that we could plan for it but we don't plan for it…" "We can teach nurses to understand it on things like the Critical Issue Unit that you run and the units that I run, we can help them to understand the world but often as nurses we can help them to sustain the role of nurses and nursing and speak up for nurses…"
"How can we get that over to our students in terms of how they practice to influence practice…?"	**Participant 8:** "I think things like enquiry-based learning and those sorts of approaches, what they really do is they encourage the student to be more self-resourceful so are able to go out and explore and find out things for themselves rather than I think like…" "If you go out and find this information for yourself and do things in a self-exploratory way then you are actually building up experience and experience is more sustainable than anything else…" "Perhaps with other professions students are naturally encouraged to be a lot more questioning and a lot more challenging…" "You could argue that actually being prepared for extreme weather is protecting the public…" "Everyone is scared of challenging the NMC and actually if everybody did get together and say well we don't need the NMC, we don't agree with what the NMC are doing, we're going to do something different, there is actually nothing…"

"…in terms of education for sustainable development, where do you see our role as educators…?"	**Participant 9:** "…not only in their role as a nurse but as individuals to also enthuse them and motivate them to actually undertake in their own kind of environment and in their own roles as members of the society to look after the environment…" "I suspect they see that sort of issue as issues that activists deal with. Environmentalists, Greenpeace, you know people like that. They do not see themselves as people who will address those sorts of issues and I think there lies the core of the problem isn't it, that they don't see themselves in that role and they don't see themselves as nurses or that that has anything to do with nursing…"
"…summarise for us what your understanding is of education for sustainable development and its particular relevance to nurse education…"	"Well, education for sustainable development from the perspective of nurse education for me is about educating our nurses so that they are able to provide patient centred care which benefits not only the patient but it benefits the environment, the resources that we are going to use. It is going to be more cost effective…"
"Summarise what you have told me about your understanding therefore of education sustainability and its relevance to nurse education…"	**Participant 10:** "I think the term has to be more explicit and clearer to people. It has to be more explicit with the curriculum and feed through the whole of the curriculum and people have to understand what the expectations will then be at the end…" "…them as innately caring people who also have a professional knowledge that they want to drive things forward…" "…in realistic terms you would say that we are educating our students to care for hopefully themselves and their families but all of those people that they come across…"

Globalisation

"…you've touched on that issue of the movement of people In terms of…"	**Participant 1:** "I think it is there in a way because in our interviews when we interview people we always ask about diversity which I think is an evitable consequence of globalisation so we're aware it's there. How well we address that issue completely…" "I think that the circumstances in which human beings are going to live are altering and our options are narrowing down very rapidly in lots of ways even though…"

"…how do we address that with the scarcity?... How long can we go on using… are the resources that we are using in your opinion, are they infinite or is there a finite...?"	**Participant 2:** "I suppose the nursing hat would be that we want them to be infinite but the reality is that they are not and yes there has to come a time where we can't progress…"
"I'm taking you up on, just to expand on words that you've used. Give me some of that robustness…" Give me an example of the issues. Global issues…"	**Participant 3:** "It should be more encompassing…" "…if a British nurse moved to America they can function there, i.e. they move from British to Timbuktu for instance, they can fit in there. Where they haven't got all the technologies and all that, they can fit in there. That is what education for sustainability should be. It's not just about technology, it's about being able to function…" "…the professional bodies must have a change of mind-set. They must also be able to sit round the table with other bodies from other countries and look at how they produce their own nurses…" "So with or without technology nursing education must be globally recognised…" "When we use the word globalization, people think about things like environmental. That's part of it, however, what I am thinking about is having a nurse education that will allow one nurse from Saudi Arabia to function in the United Kingdom without having to undergo stringent measures as if the training she had over there was null and void. Rather it should be whatever training you had wherever you had it, there should be something that will produce a familiar ground for everybody…" "However, that does not mean that local needs and local issues should not be recognized. That is what globalization is about. Globalization is not about undermining local needs. No. It's recognising them but also building them into the common template…." "You begin to meet people where they are at rather than trying to establish rapport. That takes some time, it takes some doing and by the time you do that another. We are running like a conveyor belt system in the NHS yeah. Before you establish the rapport the patient is on the go and something has gone missing in the process…" "One student said, This man that I looked after was… and he felt so at home with me so I could speak his language and even when people visited him I could relate to way the dynamics go between them but another person wouldn't have seen it as a dynamic they would have felt there was a

	strain in the family but because I am from the same cultural background with them I could relate to that and that actually helped my relationship with this patient…"
	"Look at this student nurse that I am going to see. One of the things he told me is that they said that he's communication wasn't good enough because he was loud…"
	"We're so diverse…."
	"I personally try to run, you know deliver a session as part of my unit, looking at globalization in nursing and looking at global challenges in health. I put in my unit even though it wasn't in the unit guide. I felt constrained for my students should become sensitized to the global issues that people are facing today because the world is becoming smaller. So as the world is getting smaller, we will be nursing people from all walks of life and also even at your doorstep there are global challenges that you face. How can you begin to look at other people if we have not recognized the ones that are at your doorstep…."
"Tell me about sickle cell crisis, because you said that one of the triggers for a crisis with sickle cell is stress…"	"What about sickle cell…"
	"…because of how mobile people have become for economic reasons or for whatever reason, they find themselves in a different environment and that can even trigger crisis in them and people don't understand that it is not just giving them water and all that that there is more to managing that patient because of the change of environment. How do we manage this to reduce the frequency of this patient's crisis that they have managed very well in their own locality and for some reason they have become economic migrants in a different place and now they have to face the challenges of sickle crisis and people that don't even understand what they are going through and they can do to help them…"
"had we had a global appreciation of the issues surrounding sickle cell management, we may be managing them differently which would ultimately be more sustainable…"	"They don't understand the impact of their new environment on their health, we need to be equipped…"
	"Is stress and a sudden change of environment to do with temperature changes…"
	"Sudden change can trigger. Not can, does trigger sickle cell crisis… Exactly…"
"Do we not have a duty to the patient…"	**Participant 4:** "…view of the world was that the most important thing is individual freedom then you would be outraged if your view of the world is that individual freedom is important but not as important as the world being of everybody…"

"…but even whether the climate change theories are right or wrong… How are we preparing our nursing students for planning major incidents…"	**Participant 5:** "The other thing of course is that people don't necessarily make the connection between the national or whatever disasters and health which is the bit I find strange really…" "People don't think of it as a global economy do they and that's part of the problem…" "I'm talking about the way that influences the forces, food and all sorts of things…"
"That's the thing about nursing. It's a bit of everything though…"	"You need to have an understanding about what it is, what the issues are in terms of the health which is the bit people might be able to listen to. How it affects the economy, the workforce. All these things which are all interlinked whether people think of it or not. Part of the problem I think as well is that sometimes people don't understand how a lot of things have anything to do with nursing…" "I mean I've even heard people, lecturers, which I'm scared to say, say things like well I don't see why you need to know that to be a nurse and that kind of attitude…" "Health is everything. There's no such thing, housing, education, economy everything is health and if you're a nurse that's your business…" "…maybe because my background was community and we are kind of a more social model of health and I think I work with a lot of people who have got a medical model of health, they don't see the connections and I think that's part of the problem…" "Health is about addressing people's housing, their food supplies, have access and availability to all of these things are health and all of that is about sustainability…"
"…yet I don't hear of nursing colleagues using even the term 'sustainable development'…"	"I don't think that you will hear that because, again from my opinion, one of the problems I think with the curriculum as it has been is it has always been quite narrow and there is always this focus on skills and this that and the other…" "…it is very prescriptive and it is a very medical curriculum and what we need to do is look at a much broader concept of health and if we're talking about training nurses to be the forefront of the healthcare system for an evolving healthcare system we need to look at social model of health…"
"It is an extremely broad term but where I'm coming from is where nurse education fits within that term…"	**Participant 6:** "Are we talking about this in a global sense of within the nation as part of sustainable development within the nation or are we talking about it sort of strictly within the health field. Cause it's a very broad term isn't it…" "Because I think our students probably do have a fairly sort of UK perspective on the world as far as health is

	concerned…"
	"I think that's really important and being able to transfer that theory into practice relating normal physiology to disordered physiology. That's what we try to do. I think in a sense that is global…"
	"…that has got to be controlled because of climate change etc. I mean we might be rowing to work in twenty years' time. If global warming carries on that's the prediction isn't it…"
	"I suppose you've got to talk about it. It has got to be part of the curriculum and because I don't know how many of our nurses actually understand the concept of global warming because people keep saying "oh, we got snow again. So much for global warming" but that's the whole point. The whole point is that global warming causes extremes of weather…"
	"I think as a country we are not, with the best will in the world I am pro sending overseas aid but at the same time I think if it is falling down into a pit and building a palace…"
	"You get these pictures flushed round the world and I am contributing to Sundstrands and Oxfam and various other things…"
	"All that stuff about you know, that the multinationals stop them using their own seeds…."
"Because we talk about addressing cultural issues etc etc, but we're not using terms such as globalisation…" "…, would you consider using the terms of globalisation, the effects of, instead of sustainable development, education for sustainable development in your units?..."	**Participant 7:** "You may be very interested in it because you know at the end of the day droughts and rainfall have a profound effect on the development in overseas and on healthcare. But if you are working in the UK and your assignment is about a case study on a patient in a ward, you may hear it but you may not actually listen to it and you may not really engage in it…" "I do…" "Well I teach sessions on rights and responsibilities and one of the sessions I do is I ask people what are rights. What are needs and what are wants. I get them to explore that and then I ask them in groups to actually identify what are human rights. What rights are we entitled to. So not the things that we want or we need but rights do we have. Then of course they always put shelter, they put food, they put water, they put healthcare and I always say to them well if that's the case then why is that 90% of the world doesn't have it. Why are you setting here telling me this? What are you all doing and of course the answer always is, well we haven't got enough money or well we will later on in our lives and then I get them to explore issues around. Some of the problems we have in this country is caused by, for

	instance, the drug one…"
"How do you?..."	I think it's so important because I think if you are going to develop a nursing workforce who can work in the first world where we have multi-cultural, we have people moving around the world. If you are going to look after those people that's important but more importantly from that for me, if you are going to help nurses elsewhere in the world because the reality is I see nursing as a global community and I think if nurses in this country, which I think we should do, are going to care for nurses elsewhere and are going to support other people to try and bring their standards of care up to where our standards of care are within the confines of the circumstances they find themselves in, I think you have to understand the world they are living in. The thing around the missionaries, the way not to be a missionary is to go somewhere and tell them how to do it. You have to go there and find out what their world is, what they need and then help them to do what they need to do and I think if we are going to develop a community of nurses who support nursing globally, then the nurses that we produce need to understand the global nurse…" "You ought to be able to go anywhere in the world and be a nurse. You have to understand that other places you go in the world they have different ways of doing things, they have different resources. I'm not saying specialist nurses but basic nursing care you and I ought to be able to get on a plane and go anywhere in the world and do nursing. Because nursing is about caring, it's about providing basic nursing skills. It isn't so much about suturing and how to run a ventilator, nursing is about, you know we all ought to know or at least have an idea about how to feed the malnourished child, we ought to know how to speak to the mother…." "…I think as nurses we ought to be able to go elsewhere in the world and we ought to be able to be nurses, we should be able to provide basic nursing care within the confines of those circumstances and I think only if you have those skills, only if you have that knowledge, only if you have that awareness are you able to sustain nursing as a profession and I think at the end of the day we don't offer that. I think the nurses that graduate, many of them I think if you sent them off to another country to work they would be lost, they wouldn't have a clue where to begin because they haven't got an understanding of the culture, they haven't got an understanding of different people's behaviour and I think they just want to go in and do it the way they do it…" "I think we don't really give the nurses that we train the real global image but that's possibly because we don't think they need to know…" "…and I don't really know how we deal with this problem, but again we teach nurses in this country and elsewhere in the developed world…"

"…if sustainable development is not addressed in one part of the world, given the size of the world and how easily we move from one end to the other…"	**Participant 8:** "Things like TB on the increase…" "Which again looks at attitudes and people being able to accept different cultures and being able to treat them equally?..." "In other words adapting so that they can give them what they would need in their culture and understanding their culture, understanding why the difference may be there…" "Yes. And again I still say using good teaching styles to do that would be really important and people examining those. Not just for straightforward lectures but actually go and get that experience. I must admit it didn't occur to me when I first started this interview but yet now it is really important that actually looking at issues from today and being able to change our education…." "…it's the breadth of knowledge. Using the breadth of knowledge with the experience in order to make it into an action and I think that is what we need to get across to make our education styles and our learning recipient more appropriate to what we need in terms of today and in so doing, making it more sustainable…."
"…How comes it is on the increase? … the movement of people….	"You see compare our curriculum to say the curriculum from the States or from Europe…" "…when you look at the American curriculum…" "…allow our learners to actually expand and advance…" "…worked in an American hospital in the Middle East and I think they encourage a lot more of that sort of…" "I think their curriculum probably is a lot more contemporary in that they do look at a lot more of these wider issues and as you said it is the language…" "…maybe you would have somebody who has just come over from the Middle East where the husband does all the talking. Now we used to get that a lot in the Middle East and people would say, yeah but I want to talk to the wife but that actually wasn't their culture and if you did talk to the wife she would tell you, you'd better ask my husband and everyone saying oh that's wrong, that's terrible. In our society it is but actually in their culture that is what she expected…" "We should be teaching them and equipping them for today, for the society there is now…"
"…the United Kingdom sits as part of a greater society through globalisation.	**Participant 9:** "Well it does, but I mean we say it but we don't practice it…" "I suspect it is the nature of the job itself that is preventing

What do you think of that?"	us. I mean I think that if you take for example, the Primary Care Pathway as an example. There is a difference in terms of the expectation of the curriculum for the students compared to the general students. So in the curriculum we have had one or two different modules, the Children and Family module for example, I taught that module and I run it, and I concentrated quite a lot on the issues of poverty and its impact on mother and children and looking at the data in terms of the people who are living at poverty levels and certainly the numbers have increased dramatically and we have looked at government policy related to those and we have looked at what the nurse can do in order to provide care and support for families and poverty. So in that context, and I suspect in courses like the health visitors courses and other community type prevention public health courses, I suppose it is an issue that is being addressed but I think that in the general nursing curriculum it is not simply because I feel the general nurses focus towards looking after people in a hospital setting and looking after the acutely ill patients and I think that we are still caught up with the idea of just carrying out physical care. We are still not interested in the impact of the environment, people's home, their lifestyles and the impact that has on their health. Nursing is still practiced on a sort of task orientated basis and we still are not making that connection…"

"I feel a bit more heartened with our role because in the new curriculum certainly I am involved in the Public Health Public Policy module and certainly there is quite a lot of the kinds of issues you are talking about so we will be looking at global health, global issues, the impact of sort of the environmental changes, peoples health, the impact of all the things we are talking about, poverty, industry,…" |
| "Who is are national population. …"

"…examine how nurses practice in areas such as…" | **Participant 10:** "…in realistic terms you would say that we are educating our students to care for hopefully themselves and their families but all of those people that they come across…"

"…it is all very well for us, we have had our industrial revolution, we wrecked the world 200 years ago and now we're…."

"…they use unconventional medicine as well…"

"I sometimes say we are killing ourselves with our wealth in terms of diseases…"

"…type 2 diabetes and all of that sort of stuff and the fact that we hear last week that 50% of food produced in the world is thrown away while other people are starving, it would seem that there has to be an easy solution to it but there clearly isn't but you can't be sustainable if only 5% of the population have access to stuff…" |

Compassion and Care Systems

"A few examples of that…"	**Participant 1:** "…sometimes that we concentrate so narrowly on issues within nurse training and I think that sometimes we don't address some of the broader issues of citizenship and how nursing fits in to a sort of wider civilisation and that's important…" "There are issues aren't there about how some nurses are perceived as not having compassionate approaches to work…" "I think it only really makes sense if it's part of the ethos really. I mean maybe it should be linked of that idea of compassion and maybe we're not very good at that. We sort of feel awkward and embarrassed about it right from the start of the training…"
"What values would you associate with education for sustainable development…"	**Participant 2:** "If there is a list I would be wanting still to be able to produce at the end of it all a caring, empathetic, compassionate say practitioner notes, that's there to care and look after people that are unwell in whatever shape, way or form and remembering the fundamentals…" "I would say it is to have empathy and compass sion and I think that perhaps we've lost the compassion out of nursing and in some extent I would say perhaps we've lost the empathy in nursing and in fact it was only a few weeks ago that there was some senior nurses sort of being interviewed on the radio and things and they were equally agreeing and saying, well not agreeing with me, that perhaps the compassion has been lost in nursing…" "…this nurse is able to deliver care to a group of patients…" "The whole purpose of care…" "…the people that are advancing the care for long-term conditions have all and rightly so put in a lot of time, effort and work into it to advance the standards and the care that's actually offered and delivered but perhaps somebody has to sort of then woo them back to think because we can't live forever and ever and ever and perhaps sometimes we get blinded…" "…be cared and nursed in their own home…" "…It could have a big impact on care…"
"You're talking about a generic nurse that can deal with specialist	**Participant 3:** "Sustain the people in their natural environment and still be a nurse…"

issues as they arise…"	"Exactly. Yes…"
	"Yeah. Acute or community as they arise"
	"That is what I would see as sustainable nursing education. Not the type of nursing education that compartmentalize…"
	"Into little boxes, you're a charge nurse, you are an adult nurse and even within adults there are compartments. You are mental health and even in mental health you are either in acute or community…"
	"First of all the professional bodies must have a change of mind-set. They must also be able to sit round the table with other bodies from other countries and look at how they produce their own nurses. Look at it and see whether there are things we can learn from them, instead of us imposing our on them as if we are better than. It is not a question of better than or not good enough it's a question of realizing that we are looking after human beings. First and foremost, and every human being deserves a holistic approach to care. So with or without technology nursing education must be globally recognised…"
	"I'm reading some Care Plans that my first year students have written and I can tell you, I can re-live some of those accounts the patients encounter as if I there…"
	"Then we need to look carefully at the nature of elective placements. So we need to look at how elective that placement is in order to ensure the sustainable nature of that experience…"
	"I have used patients to promote quality of care and I have seen the impact it can make on professionals…"
	"That is what we nurses should be about. Individualized care isn't it…"
	"…it can only be right that we provide a type of care that will meet that person where they are…"
	"How can you care if care is just a snapshot thing and is not something that that person can use to promote life…"
	"For instance, the asthmatic patient, how are we going to provide the type of care that will enhance their understanding of the precipitated factors to asthma. How are we going to ensure that that person knows that if I'm exposed to this type of environment or if I am stressed out or if I am in a family where the dynamics is not up to scratch, I may suffer this…"
	"Yeah. A holistic approach to care..."

"…some of the issues that we think that we need to even change, say the way we care or educate our nurses…."	**Participant 4:** "…one of the courses that I have to deal with is care of the acutely ill patient…" "…out there that there are many people working in acute care…" "OK…"
"…issues relating to sustainable development…"	**Participant 5:** "…sustainable development in that we are trying to get people to be more proactive and to not always be the recipients of care, to be in partnership etc and that is because they are trying to enable…" "…the idea behind the health bill is supposed to be about sustainability isn't it. It's about being able to carry on with this primary care led domain in a more effective and basically economic way and so I suppose the ethos behind it is it is supposed to be about sustainability but what I'm asking students to do is say does it actually address that…" "…we're talking about training nurses to be the forefront of the healthcare system for an evolving healthcare system we need to look at social model of health…"
"…where would it fit in…"	**Participant 6:** "I think my sphere of nursing expertise has changed quite a lot as it started out as critical care. Thinking it in terms of critical care it is an essential service because at the end of the day people are still going to become unwell for acute periods of time and that is really what critical care is about…" "Where nursing education fits in here is that the education that we give the nurses who work in places like the intensive care again has to be up to date. It has to be evidence-based. It has to move on. It has to embrace new skills as new technology is introduced and it's just a whole range of things really cause it is also about how people work and how they manage and good management and their health at work as well…" "The care for. Well I think the thing is that what we try to do is make it relevant to everything else that they are learning. We try to make it relevant to their practice, their everyday practice in terms of things like fluid balance and as I say skincare and taking you know just general observation as well of individuals. I think that's really important and being able to transfer that theory into practice.." "…that elderly care, certainly over the next few years is going to have to change a lot…" "We probably need more input about how to care for frail and elderly…"

	"….get involved in the care of the patient…"
	"…simple things and this sort of goes along washing your hands as well but taking your patient's vital signs and understanding what they mean, how they relate to the condition, at what point do you need to alert somebody and knowing that point, when to alert somebody…"
	"Yeah exactly. I don't want to walk to the toilet, can you bring me a commode…"
	"And that is a difficult one because I think part of them, people who come into hospitals, they sort of expect their pillows to be plumped…"
	"…of have things brought to you. I don't think, well sometimes, they don't always understand. But that's about patient education. That's something that perhaps when you admit patients there needs to be a discussion…"
	"Interestingly, something that Louise and Graham and I did recently about skills and having skills and the overseas nurses, almost all were women, stated that they felt that their training, although it wasn't academic in the same sense as our training is and it was a bit more teacher centred than perhaps it is here, they did feel that they learned skills much more effectively and they often felt frustrated that they were not allowed to use those skills in practice…"
"…is it sustainable for our student nurses to go out there and not practice?..."	"…meet I usually get a tirade about how dreadful student nurses are nowadays and how they come on the wards, she still works part time, they don't want to do anything. They don't want to get their hands dirty, they just want to write things down, they don't want to get involved in the care of the patient. And I thought, that's sort of interesting in the light of the amount of time and effort we put into teaching skills here…"
	"No because if they get to the end of their training, they have got to be fit for purpose…"
"…what it is in terms of nurse education?"	**Participant 7:** "So we need to be looking at the good, the bad and the ugly of the healthcare system…"
	"…becoming more aware on a whole of the important elements of sustaining a society or the sustaining of urgent care…"
	"…professional duty of care…"
	"No…"
	"I think we've gone some way along the line. I think there are some units and I think there has been a change over recent years to much more sort of student led units where the

	students are encouraged in…"
	"…we think we've given them the best care possible but they leave distressed because the important things, the tinsey little things that are important to them have been disregarded…"
	"…they always put shelter, they put food, they put water, they put healthcare and I always say to them well if that's the case then why is that 90% of the world doesn't have it. Why are you setting here telling me this? What are you all doing and of course the answer always is,…"
	"…to support other people to try and bring their standards of care up to where our standards of care are within the confines of the circumstances they find themselves in,…"
	"…we should be able to provide basic nursing care within the confines of those circumstances…"
	"NMC Code of Conduct and we talk about providing care when you're not on duty…"
	"I think part of the sustainability in the NHS is far beyond the education that we give healthcare professionals and I think it is also about healthcare progressing at such a rate…."
	"…the care that we'd like to give down at this end we can't give so again sometimes I suppose it is about asking ourselves should we be training nurses to be able to manage the fact that this is just to get what she wants or should we be training nurses to be saying, well actually should she be having it and then there is this whole issue I think around how is the money distributed but I think for nurses to grasp that and for nurses to do very much about that it is often a situation where we have little or no other choice…."
	"…to sit down with someone and talk to them and listen to people and they want to provide basic nursing care…"
"…how are we educating the students to make learning more sustainable so that they can transmit that into how they give patient care…"	**Participant 8:** "…they actually go out and try to find things and of course that will go with patient care because then they will be more resourceful in their clinical decision-making and in the knowledge…"
	"I use a lot of humour and I think humour is very good for making people remember things and that can help…"
	"…'cause it's part of the health education, they will be saying to patients actually paracetamol isn't this innocuous little thing you can buy over the counter it is actually a very dangerous drug, be very careful with it…"
	"Role play will probably do it but then you have to be very careful how you do that and you need to have the skills to do that without hurting…"

	"From a sustainable point of view then then you are sort of then hopefully developing the right attitude. That attitude should be passed on to patient care and hopefully that would then keep a less judgemental attitude within care as well…"
	"…the most sustainable bit is actually hanging on to good knowledge of nursing care so that you can actually carry that knowledge forward and again sustainability of that knowledge is being able to pass that expertise onto other people as well as being able to pass that good nursing care or good judgement, good attitude onto patient care is probably the most important thing…."
	"So that the patient benefits. I mean what's the point of us educating students if it doesn't. That's the whole point, to improve patient care. I mean that's our jobs really isn't it as nurse academics…"
	"…it could go on it's a chain really then isn't it because what they experience from that nurse when they're in a caring role. Not everybody who cares is a nurse, they may use some of their experience on those people. Which actually goes back to the importance of attitude. I mean you could give excellent nursing care and have a terrible attitude…!
	"They seem to lack empathy, yeah…"
"Why is it important to pass it onto patient care?..."	"…how the education is delivered and at one time you'd work with somebody, even a third year student and you would really learn from them how to care…."
	"…what we don't discuss and shy away from is also that social justice exists within care…"
	"…to make our practice sustainable in so doing making how we educate staff sustainable and making them think of how they treat patients and how they get the care and the outcomes of care making the process sustainable…"
	"…in other places such as Australia in particular they are very aware in terms of managing patient care, of the environment…"
	"…how they get the care and the outcomes of care making the process sustainable…"
	"That's another form of sustainable development isn't it? It is actually being able to sustain there and then of course you can say cause we are such a multi-cultural society now, that how would you maintain that care so that that care carries on once you have pulled back as the expert, the nurse, so that that care carries on in the community according to their own values and rights and knowledge and understanding…"
	"Really the more you think about it then the more sustainable education is important from a whole range of things. What I first said was sustainable as in longevity of holding that

	knowledge, as I said at the beginning but it also is an education so that you could make your resources sustainable, your patient care sustainable…"
"How do you believe this relates to nurse education?..."	**Participant 9:** "There is a difference in terms of the expectation of the curriculum for the students compared to the general students. So in the curriculum we have had one or two different modules, the Children and Family module for example, I taught that module and I run it, and I concentrated quite a lot on the issues of poverty and its impact on mother and children and looking at the data in terms of the people who are living at poverty levels and certainly the numbers have increased dramatically and we have looked at government policy related to those and we have looked at what the nurse can do in order to provide care and support for families and poverty. So in that context, and I suspect in courses like the health visitors courses and other community type prevention public health courses, I suppose it is an issue that is being addressed but I think that in the general nursing curriculum it is not simply because I feel the general nurses focus towards looking after people in a hospital setting and looking after the acutely ill patients and I think that we are still caught up with the idea of just carrying out physical care. We are still not interested in the impact of the environment, people's home, their lifestyles and the impact that has on their health. Nursing is still practiced on a sort of task orientated basis and we still are not making that connection…"

"I think their way of interpreting it would be very much this is part and parcel of advising your clients about looking after them but they wouldn't see it under the umbrella of the concept of sustainable development it will be seen as part of the treatment and care of a patient…"

"I certainly see it because of my public health background but, however, if we were to educate our nurses and to use the example…" |
| "So I'll use this example, wound care… aseptic technique, particularly the washing of hands could ultimately reduce the risk for infection which would then reduce the need for antibiotic therapy and so it goes on. Ultimately improve the chances of healing…" | "Yeah…"

"Less hospital admissions etc…"

"…that's how I see it but I said I don't suspect that your average nurse, if you were to go out now with a microphone and say to a nurse on the ward, even a ward sister, do you think that wound care is part of sustainable development? They'll probably look at you very oddly and say what on earth do you mean and they will say I don't see how it has because they just wouldn't see it in those terms so I suppose it is all down to the definition of the concept in terms of having a much wider definition and using those examples to illustrate to people how wound management, all elements of care really, fits under sustainable development because if we are interpreting it in that concept I would say that almost all aspect of our lives fall under the category of sustainable |

	development…"
	"Seeing and understanding that actually we follow certain procedures or not or introduce new ones or new elements of care etc, all of that contributes to sustainable development…"
	"I think one people don't make the link between patient centred care and sustainable development. That's one. Two, I think historically change is always very difficult. That we do things as we have always done and so we continue that way. Three, we are fighting against huge corporations and huge businesses when it comes to new drugs or new treatments for wound care or new baby foods or whatever you want to call it and they're a very powerful lobby. If we are going to think in terms of sustainable change and we're thinking about patient centred care you know we have to involve not just ourselves it is a multi-disciplinary so we are going to have to convince our colleagues also that this is part of what we call sustainable development…"
	"I think in the end people have got to want to see is it relevant to care, is it going to benefit patients…"
	"…education for sustainable development from the perspective of nurse education for me is about educating our nurses so that they are able to provide patient centred care which benefits not only the patient…"
	"…if they understood that basic nursing care comes under the element of sustainable development, I think we could influence…"
"…we accept that even writing a basic nursing care plan I might suggest relates to education for sustainable development…"	**Participant 10:** "Yeah, or something like you are recommending a ridiculous diet to somebody who is on next to no benefits. You're recommending a diet plan to somebody who has no intention of doing it…"
	"I think it could be the language we are using. I think it is laziness. I think it is a reluctance to challenge and to be a little bit different to sort of come up with concepts that might be a little bit off the wall. But they wouldn't be if as I said it was included in everything we taught…"
	"The current or more than one government, but hospital trusts being bound by targets rather than by care and that following it into nurses and I think it is quite hard to undo…"
	"Who are we preparing them to care for?..."
	"I would like to think that we are educating them to care for everybody but I am not sure that's what comes out…"
	"Well any human being in their general attitude should in that ideal world, be actually caring about everybody in the world because their selfish behaviour may adversely affect somebody who they had never met 10,000 miles away but in

| | realistic terms you would say that we are educating our students to care for hopefully themselves and their families but all of those people that they come across…"

"I don't think it's a 'session' that needs to be taught it is something that has to be an innate, ingrained part of nurse education…"

"…that's why I like evolutionary curriculums and I also like developmental curriculums…" |
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Social Justice

"…your module guide, your unit guide…"	**Participant 1:** "…we do talk about the importance of effective rehabilitation about fairness. There's a big dignity component to the course so I think there is a pretty fair bit of interview. Thinking about social justice and about nursing ethics in response to social justice…" "I always found it really interesting in that humans and I think perhaps is very interesting here is that we see when we talk about who are neighbours are…"
"…social justice, human rights…"	**Participant 2:** "…you know we can't go on, we have to think of the patient's best interest and what is correct and right for them on an individual basis"
"What values do you associate with ESD?"	**Participant 3:** "…user involvement is about sustainability and it's about empowerment etc…" "I think if we had it user involvement, sustainability, attached to units where they are appropriate…"
"So, education for sustainable development…."	**Participant 4:** "The thing about sustainability and fairness and all of that stuff about having gates wide enough so that people can have a chance that might have missed out on education or you know weren't interested when they were at school…"
"…when you start thinking about social justice, human rights…"	"…tied in with that I think it's back to the whole politics and ethics of things like stopping smoking in public places, you know whose rights are we talking about here, so that's a debate and in the end the stake came down on one side but you can just as well argue of the other. If your view of the world was that the most important thing is individual freedom then you would be outraged if your view of the world is that individual freedom is important but not as important as the world being of everybody then you come down on the other

	side but they are two different philosophies…"
"What about the social element of it, wellbeing…"	**Participant 5:** "Some of it is about social wellbeing and…" "…ecology and also I suppose, in its true sense and maybe from its origins, a lot of it is about helping people to help themselves and then what sustains…." "I suppose the long term. If you look at it in its kind of bigger picture, the long-term advantages are that it should be financially more viable, that people feel that they are part of something, they feel a bit empowered, their self-esteem is raised. People don't particularly want to be dependent etc. It is all of those things…" "…but maybe because my background was community and we are kind of a more social model of health…" "…it is very prescriptive and it is a very medical curriculum and what we need to do is look at a much broader concept of health and if we're talking about training nurses to be the forefront of the healthcare system for an evolving healthcare system we need to look at social model of health…" "…that's why I think it fits in with things like law and ethics and politics and public health. I think it definitely fits with those types of things…" "I'm talking about the way that influences the forces, food and all sorts of things…" "Modern workforce and 21st century nursing. We need to address health is not about a physical condition and treatment and hospital. Health is about addressing people's housing, their food supplies, have access and availability to all of these things are health and all of that is about sustainability…" "…sustainability from my perspective means public health in other words we're doing things to improve health and particularly to encourage people to feel involved, engaged and that we are trying to prevent reoccurrences of diseases just make people feel empowered I suppose…."
"What values do you associate with ESD?"	**Participant 6:** "I was watching something the other night and they were talking about one of the towns in the north, you know when mining stopped altogether and they are still having difficulty. Somebody said he worked for a call centre and then they moved it to Outer Mongolia or somewhere. So why do we do things like that. You know, why are we doing that and leaving our own…" "I can appreciate it will take an awful lot to turn it around and I understand that people in Outer Mongolia also need jobs as well…." "…with the best will in the world I am pro sending overseas

	aid but at the same time I think if it is falling down into a pit and building a palace…"
	"It's not sustainable and that sort of thing irritates and frustrates me…"
	"…you want to know that it is going to the people that you actually want it to help…"
"…there are elements of social justice, equality, equity and such like…"	**Participant 7:** "Yes… I mean in the sort of ideal world that the students are identifying, that little bit about climate change or that little bit about human rights or that little bit about whatever. I think in the ideal world it should actually lead to them becoming more aware on a whole of the important elements of sustaining a society or the sustaining of urgent care…"
	"What I am honestly not sure about is when we have such a, busy may not be the right word, but when we have a particularly sort of crammed curriculum and there is such a lot they need to learn in order to get through…"
"How do you see that fitting in with your view and your perspective of education for sustainable development?..."	"I have several images of poverty and so I always have to seek clarification and say, where are they in the world, for instance? You know cause somebody will say you know so and so and so and so living in a house in London and are suffering terrible poverty and actually they are by our standards because they haven't got a trifle and the fizzy pop you know and the trip to the cinema and all of those things which by British standards is poverty but when I compare it to someone living in a slum somewhere in the world, they haven't seen poverty, they don't know what poverty is and this is the difficulty because I think we don't really give the nurses that we train the real global image but that's possibly because we don't think they need to know it or they don't want to know it because it's painful because that's the other thing… The difficult thing about seeing the world as it really is, here is a little bit like…"
	"…many of us don't want to acknowledge that…"
"…yet the way we live, work and practice may actually be sustaining that individual in that condition…"	"…about fairtrade it is a bit of a challenge when you arrive at Tescos and the fairtrade coffee is there but that's a pound more expensive and you think shall I, sharnt I, will I won't I… I remember one of the students saying to me, well you've no right to ask me that question and I said to him, why have I no right and he said because what I do with my money is my business and you have no right to ask me that question and I said well that's fine, I don't have any right to expect you to answer it. I'm just asking a question but he also was quite offended at the fact that I had even dared to ask the question. When I asked the question what I actually said was not why are you doing that I said why are we doing it so I included myself in that…"

"How relevent is ESD to nurse education?"	**Participant 8:** "The breadth of knowledge… know it seems like a turn of the teaching styles but it is using the style that exposes people to those areas so you can use that for culture… I think we have to demonstrate more than just throwing the terms at them. I think sometimes we do that but we have to actually foster in the students that objective level minded approach… When have you heard nurses talk about social justice? We always say everybody now should go to a stroke unit. Does anybody really discuss that somebody who was in say Moss Side Manchester what their chances of getting to a stroke unit quicker than say somebody in the posh part of Manchester would be. But we don't talk about it really… what we don't discuss and shy away from is also that social justice exists within care… Maybe we should start bringing that in more. You see nowadays if you start talking about social justice you're just a… some people sometimes shy off talking about social justice, certainly in nurse terms…"
"How do you believe this relates to nurse education?"	**Participant 9:** "I suppose one way of putting this is poverty. Poverty is a typical issue that we have in our world at the moment and the nurse's role in that sense is central in terms of helping to alleviate poverty in whatever context. So whether it is about helping people to eat healthily, helping people to look after their environment, to maintain a particular lifestyle, to not overindulge and not over use food, I suppose that is one example. I mean the other would be climate change and that impact is huge on the environment but of course our client wouldn't expect nurses to be talking about climate change but I do think that nurse's ought to be because it may not be of concern and I suppose this is where we need to make a distinction, perhaps between nursing in a sort of well-developed country and nursing in a less developed country because In terms of education and sustainability for development in a western fully developed country to a developing country, I suspect the nurse's role is very different because I suspect in a developing country, the nurse's role will encompass all of those elements, climate change, alleviating poverty…"

"…because we live in a developed country, people are not always at the mercy of the impact of poverty, the environment and all the kinds of things that would affect people in say a developing country and so they may not see or understand the impact although I would extend my definition of the concept to issues such as alcohol abuse, drug abuse, violence. I suppose if the nurse is involved in those areas in terms of giving health promotion and advice and so on and I would say all those issues are relevant to our environment because if we have people taking drugs, alcohol etc, they damage the environment, they damage themselves…"

"So in the curriculum we have had one or two different modules, the Children and Family module for example, I taught that module and I run it, and I concentrated quite a lot on the issues of poverty and its impact on mother and children |

	and looking at the data in terms of the people who are living at poverty levels and certainly the numbers have increased dramatically and we have looked at government policy related to those and we have looked at what the nurse can do in order to provide care and support for families and poverty. So in that context, and I suspect in courses like the health visitors courses and other community type prevention public health courses, I suppose it is an issue that is being addressed but I think that in the general nursing curriculum it is not simply because I feel the general nurses focus towards looking after people in a hospital setting and looking after the acutely ill patients…"
"What values do you assiciate with ESD?"	**Participant 10:** "If you look at us, if you look at things like MS etc, likely to be caused by environmental factors, diet, all the things that the western world is awash with and some of sometimes when I'm teaching I sometimes say we are killing ourselves with our wealth in terms of diseases…." "…like MS, type 2 diabetes and all of that sort of stuff and the fact that we hear last week that 50% of food produced in the world is thrown away while other people are starving, it would seem that there has to be an easy solution to it but there clearly isn't but you can't be sustainable if only 5% of the population have access to stuff…"

Allocation and Use of Resources

"Where do you feel that issues related to sustainable development could actually come in, is there anything there?"	**Participant 1:** "I think there are enormous issues about sort of how we use resources and how in terms of looking after older people…" "…it seems to me that the whole issue of rehabilitation has got this primary goal that if we can get people to reach their maximum potential in terms of rehabilitation then their usage of potentially of certain medical resources is gonna be enormously reduced…" "I should think in terms of resources…" "I think sort of 10 minutes ago I probably would have concentrated much more on the sort of resources within hospitals and how we sort of deal with stuff. Once you start thinking about it you realise that it could be sort of a much broader sort of approach and that makes a lot of sense and I think also that it is very important and I think it's something which we don't do…" "I think that any discussions tend to be more or about equity or access to services between older and younger people…" "What is the morality then of if you had to choose between

	giving services for a younger and older person where do you stand…"

"Medicines management is a large component…"

"I mean that obviously the issues of older people and huge issues about resources sort of usage we can certainly do that about where people are being sort of looked after, what sorts of environments they are being looked after in. I think medicine again yeah and I think especially with things like dementia which we think is still going to increase and there's no cure as yet…" |
| "…are the resources that we are using in your opinion, are they infinite or is there a finite…" | **Participant 2:** "I suppose the nursing hat would be that we want them to be infinite but the reality is that they are not and yes there has to come a time where we can't progress…"

"…we have to think of the patient's best interest and what is correct and right for them on an individual basis. That must take precedence over everything but equally the patient needs to have…"

"…society in the UK have got to make the decision as to where they're wanting to spend the resources and the money…"

"It equally is making people think about the throwaway society that we're quite used to and have no consequences and no thinking about it. The resources of where and the logistics of where rubbish was dumped cannot be sustained any more…"

"I mean we've got the budget and the money as much again as a nurse it goes against the grain and being and NHS person and somebody that's sort of very proud to say that I work for the NHS, I do understand and I'm not stupid enough to think well, you know money isn't everlasting and the pot for NHS isn't a bottomless pit and perhaps it may turn out to be society's decision as to quite what we're… you know how far we are actually going to go…"

"…but the fundamentals perhaps aren't there and the resources aren't there to sustain…"

"…society is demanding its healthcare and the resources aren't there because again we need to almost do everything for nothing because the money's and especially nowadays because of the financial climate and things that money isn't as readily available as it has been…" |
| "What nursing issues do you consider alongside ESD?" | **Participant 3:** "That is what education for sustainability should be. It's not just about technology, it's about being able to function. Even with limited resources but you've got the knowledge, you've got the expertise and you can adapt.."

"That's why at times you wonder whether the resources we are utilizing to prepare that number of students, whether it is |

	worth it in the end…"
	"Can we continue to afford this or is there a way that we can make this more cost effective within the limited resources that we have. Because that's what survival is about isn't it…"
	"How can you care if care is just a snapshot thing and is not something that that person can use to promote life. Take the time to make that experience sustainable so that they don't have to come back again and even if they do it is not for that same reason. It's for another reason. For instance, the asthmatic patient, how are we going to provide the type of care that will enhance their understanding of the precipitated factors to asthma. How are we going to ensure that that person knows that if I'm exposed to this type of environment or if I am stressed out or if I am in a family where the dynamics is not up to scratch, I may suffer this. I may have an attack or the frequency of my attack may become more so if we don't provide such education to individuals like that of course it will add more drain to the minimal resources that we have…."
"I asked you what did you think of the term education for sustainable development and how it related to…"	**Participant 4:** "The disposables is what I'd say…" "…one of the things that I did say was that people have to realize that there is more than one side of something that is complex…" "…the greatest good for the greatest number… The whole utilitarian approach, the greatest good for the greatest number and in that the individual suffers but in the other one the population suffers..." "I think it's both. I think that you have to talk about the fact that we are not just individuals, we don't just operate alone but what we do affects what everybody else does…"
"What is your understanding..."	**Participant 5:** "In general I would imagine it's ensuring the future of education whether it is from resources, through the materials we use, even maybe the actual lectures that we give…" "I mean there are little addendums about the fact that we're trying to recycle and sustain resources but I think it is primarily a cost issue…" "…if we're talking about sustainable resources that's not an efficient way to work and I am not sure if it actually enables them to learn anyway. So I think that's one of the issues. But personally, I don't know if discriminatory is the right word but think about equality and opportunities for learning, I don't think it takes into account everybody's individual learning needs…" "If I can apply it to things that I've done in the past without actually calling it sustainable development. But when we

	looked at the health bill as an assignment in the past, part of the assessment was saying what are the implications of this bill in terms of the NHS, in terms of the nursing profession and in terms of what patients think and it will be things like, for example, does this bill enable sustainability of the current way of working or resources..." "I'm talking about the way that influences the forces, food and all sorts of things..." "Health is about addressing people's housing, their food supplies, have access and availability to all of these things are health and all of that is about sustainability…"
"How do you use this concept in your practice?"	**Participant 6:** "I'm fairly passionate about, sort of things like recycling for example not over using resources…" "…spending huge amounts of money changing their logo at least twice to my knowledge since we became…" "Why? What is the point of that? I am sure that must have cost…" "Does it make any difference at the end of the day to change the logo…"
"Now supposing we had a major incident whereby the resources that we take for granted were taken away…"	**Participant 7:** "You have to understand that other places you go in the world they have different ways of doing things, they have different resources…" "People wouldn't be able to cope…" "…when you're not on duty and of course the immediate response is well I wouldn't do it because I haven't got, I haven't got, I haven't got but in actual fact I think every nurse ought to be able to go and provide basic support you know if somebody collapses in the street or has an accident because we shouldn't have to have the blood pressure cuff, we shouldn't have to have the oxygen mask, we shouldn't have to have but there is that because it is such a technological environment that we train in, people see those as essential things. They've got to have them…" "I don't know if it is about preparation because I think you know the weather forecast tells you that next Monday and Tuesday it might rain, it might snow but I think the problem we have is that we could plan for it but we don't plan for it…." "I think sometimes therefore although evidence suggests that these things have to be done in a certain way, I think sometimes again if you are visiting people's homes and what with the example just given about resources then I think sometimes although it is not gold standard perfection, we need to be saying to people sometimes this is the ideal but there are times when you may actually do something

	different…"
	"Sometimes we're insistent on this is how you make a bed, this is how you do a dressing, this is how you do this, this is how you do that and that's the only way to do it. But we need to be more real…. I think it is about having a much more flexible approach but I think the problem we have with that is that we as a nursing community have to come together and we have to agree on that because I don't think we can teach the students in the classroom aseptic technique is the gold standard… There are issues if you are a manager…"
"How do you use this concept in your practice?"	**Participant 8:** "I think it is really important to think very carefully of the teaching styles that you can use to try to foster sustainable education development and trying to go into those sorts of teaching styles. The problem with those teaching styles are of course they are very resource attentive which is why we don't often use them. It's a damn sight cheaper to give a lecture…"
	"I think it's trying to think of things like that. Sometimes maybe like an account given by somebody which could either be very moving and that would stay with you or affects you personally because it happened to be on a par with something that you have experienced before or thought deeply before or self-explanation. I think those are the best ways of trying to get…"
	"If you look at sustainable education … you might say, how can you make resources more sustainable… Really the more you think about it then the more sustainable education is important from a whole range of things. What I first said was sustainable as in longevity of holding that knowledge, as I said at the beginning but it also is an education so that you could make your resources sustainable, your patient care sustainable…"
	"We should be teaching them and equipping them for today, for the society there is now…"
	"I think things like enquiry-based learning and those sorts of approaches, what they really do is they encourage the student to be more self-resourceful… so are able to go out and explore and find out things for themselves rather than I think like the old Charles Clark times, Charles Dickens scene in two vessels waiting to be filled sort of approach. So they actually go out and try to find things and of course that will go with patient care because then they will be more resourceful in their clinical decision-making and in the knowledge that they have…"
"…use of resources and deny future generations…"	**Participant 9:** "I need to be able to tell people about it or whatever and I suppose the resources. They are going to need the resources because they can't really be implementing any sort of new developments or changes if they haven't got the resources. So not only in their role as a nurse but as

"…people wash their hands appropriately in order to reduce hospital or healthcare acquired infection and in so doing sustain the resources that we have so that we can treat others…"	individuals to also enthuse them and motivate them to actually undertake in their own kind of environment and in their own roles as members of the society to look after the environment…" "Yes… I mean in order to really carry out, health promotion in the community, you would need a huge amount of resources to begin with in terms of professional, in terms of resources to encourage our clients to adopt a healthy lifestyle because we can see the long-term benefits but of course introducing these kinds of services and resources initially…" "Yes. So I suppose part of your role is very much about having the ability, the skills etc to be able to explain all of that. To be able to get people on board. To be able to get them to see what it is you're doing. So I would say as an educator obviously not only are you teaching the students and not only you're practicing but also you have got to have these advanced skills about change management about sort of being able to have the credibility to get your clinical colleagues on board to bring about that kind of change and being able to get them to see that it is part of what we call sustainable development…" "So the outcomes that people are going to want to look at is it going to benefit patients, is it cost effective, is it going to be using more resources. Can we work with existing resources and can you get people to change and can you get people to practice differently…" "It makes sense that you should use local people, local resources, local produce like… in terms of human resources I would say yes it makes sense to go for local people. But it very much depends on the expertise we want… education for sustainable development from the perspective of nurse education for me is about educating our nurses so that they are able to provide patient centred care which benefits not only the patient but it benefits the environment, the resources that we are going to use. It is going to be more cost effective… it is to do with resources and it is to do with expertise…"
"…it would be interesting to examine how nurses practice in areas such as… using the resources that they have…"	**Participant 10:** "…because I think sustainable development is something that would impact every single session we did and therefore if it became a standard input then it would have much more impact than doing a session…" "Well they use unconventional medicine as well which… there should of course be more people involved or having an input in that curriculum development and again that requires time and we don't often give ourselves time… You're going to give three years of your life over to this place and you've got to like what it stands for, you have got to feel comfortable within it and I think if you get somebody doing that, they will engage more and what you will get out at the end will be much more sustainable… if you look at the curriculum that we have here

	then at the type of students we have or we think we have, we don't give them the opportunity to think we have, we are far too prescriptive…"

Ageing

	Respondent 1: "…looking after older people which is one of the biggest users of healthcare services anyway, my worry I guess, would be it seems to me that a lot of things would need to be cut out at a high level and sort of nursing has influence over…"
"…in terms of sustainability one would argue in some instances lifestyle alterations …"	"…mean if I'm honest we don't address those issues and I think they are lurking there but not perhaps fully. I mean I think there are lots of areas of where people are looked after which are fairly important. I mean I don't know whether it's whether environmentally friendly to have lots of people nursed in their homes or to have people nursed in a rest home sort of gathered together in one place."
	"…certainly in terms of elderly care being the whole stress in the last ten years has been that people should be nursed at home presumably supported by families and I think on the escalating road as people begin to think maybe that's not working quite as well as we thought it might be…."
	"Well there's no doubt in my mind unless something really extraordinary happens that the biggest change in human sort of life and it's not just the west but it's more in the west is that people are living much longer and that is changing again. I think we're so close to it we don't really realise it. It's changing everything, this whole game plan. Retirement age is a good example I think…"
	"I suppose like the roles of supermarkets, how they are in especially in terms in roles and people rarely very helpful for older people…"
"…that goes back to my sustainable development issue of planning…" "Are we prepared as a profession to deal again with our older	**Respondent 6:** "…that elderly care, certainly over the next few years is going to have to change… We probably need more input about how to care for frail and elderly…."
	"…the fact that the hospital discharged him back to the house and there was nobody there to meet him. There was no heating in the house, there was no hot water, nothing to eat, the TV didn't work… I loaned him a TV, we managed to get the fire working, we boiled up kettles and made him cups of tea and something to eat and we were happy to do that but they could have actually got in touch with somebody before hand and said, can you be there and I think we would have

population…"	been there…" "I was actually quite shocked that that happened in this day and age… I just made the assumption that a caring profession would think ahead about those things. He was vulnerable. He clearly couldn't look after himself… It was in the afternoon he arrived back which didn't sort of give a lot of time for rallying people either. Cause if you had known the day before you could have sort of warmed the house up and stuff…" "Planning ahead…" "Quite simple things really like reminding people to drink enough…" "We could speak to the students about the importance of, an example, the importance of observing your patient and reporting in a timely way because the further you let them sink, the harder it is to pull them back… So if that's the line of their deterioration, if you intervene at this point you've got a better chance of turning it round than if you wait until you get to here when it is going to take longer, cost more or whatever…" "It's prevention is better than cure… simple things and this sort of goes along washing your hands as well but taking your patient's vital signs and understanding what they mean, how they relate to the condition, at what point do you need to alert somebody and knowing that point, when to alert somebody…"
"So in terms of nurse education, prevention is better than cure…."	
"…in the UK because when the temperature plummets we have an increased number of admissions especially our older patient population. How do we plan for that…" "So in reality what you're saying is we're training our nurses but we are not educating them because there is a subtle difference…"	**Respondent 7:** "Yes… Cause I don't think we recognise it as being part of the training of the nurse. I personally think the problem is that we see nurses as …" "Yes and I think also I may not have articulated as well in the beginning when I was saying we have got to train them not to do as we say but we've got to train them so that they can think for themselves and I think that's the problem. So rather than, even in practice and in the universities, this is the way it is done and when students say but why or why can't it be done some other way, some of us are quite open to that and some of us and particularly people in practice, aren't so open to it because they have been there for many years and this is the way it is done. I think the problem is that we train people to not so much to do as they are told but there is an element of questioning or we train people to do tasks and this is how it's done and this is why you do it and this is how you do it and we don't encourage them sufficiently to question or to investigate why and to look further than the end of their noses…"

Diversity

"How do you see that whole issue of globalisation in terms of nurse education?..."	**Respondent 1:** "I think it is there in a way because in our interviews when we interview people we always ask about diversity…" "…foods, diet and a lifestyle which has exercise and also intellectual stimulation and getting out of being inactive…" "…It's how we teach rather than what we do…"
"How relevant do you believe ESD is to nurse education?"	**Respondent 2:** "That must take precedence over everything but equally the patient needs to have all the information so that they can make their informed decision and choice as in yes I want to continue with…"
"…issue of this cultural approach to make our service delivery sustainable, everlasting and always appropriate. Now this student may come from a culture …."	**Respondent 3:** "You begin to meet people where they are at rather than trying to establish rapport…" "One student said, This man that I looked after was a Nigerian and he felt so at home with me so I could speak his language and even when people visited him I could relate to way the dynamics go between them but another person wouldn't have seen it as a dynamic they would have felt there was a strain in the family but because I am from the same cultural background with them I could relate to that and that actually helped my relationship with this patient…" "Yeah… To the particular patient it is not a behaviour. That is his way of life. That's him. That's where he is coming from. How can you change somebody's template. You can't rather you get their backside up by doing so. All we have to do is to try and accommodate them…" "That is what we nurses should be about. Individualised care…"
"What values do you associate with the term?"	**Respondent 4:** "…knowing about human characters. Knowing why people behave like they do…" "…talking about people having a different socialization…" "…people have been socialized into a new environment and watched and seen that people don't necessarily get stamped on if they do it but also when you've got a critical mass of a group, they've got more confidence as well and become more expert in what they do…" "…because it is all to do with who you are and just going, putting the patient first…"
"What values do you associate with the	**Respondent 5:** "I don't know if discriminatory is the right word but think about equality and opportunities for learning, I

term?"	don't think it takes into account everybody's individual learning needs…"

"…the bigger public health issues and issues around the economy and sustainability aren't necessarily within the individuals domain…"

"But individuals collectively may be able to do something…"

"…people don't necessarily make the connection between the national or whatever disasters and health…"

"Particularly appropriate application…" |
| "…where our gene pool…" | **Respondent 6:** "…we have to talk about cultural issues related to the groups within the country but we're putting that in a UK context and not in a world context so that's maybe where that could be improved perhaps…"

"I think it is very important that we sweep away those old stereotypes that indigenous people in the UK can't get sickle cell for example and people who are afro Caribbean and African people don't get cystic fibrosis because that's not true…"

"Came from, we really don't… this is sort of really very pragmatic when you get down to talking about things like the skin and the care of the skin. I mean there are differences that need to be addressed. We need to sort of address that…" |
| "What nursing issues do you consider alongside ESD?" | **Respondent 7:** "I can see the complexity and I think for us it is difficult because as much as I would want to encourage people to be aware of diversity and minority groups and individual need we also need to provide the students with guidance…"

"The reality but also guidance as to how far you can go because some people will ask us to do…"

"We train nurses to fit into a particular social, cultural, environmental, political space…"

"I think you and I have been around for a while but I think when you've got the green shoots and they are just learning and just training, if we're trying to encourage them to be growing aware, for many of them we have really got to encourage them to think but equally so we have got to keep them within. That's the challenge for lecturers…"

"One of the things that we don't encourage them to do enough is to look at the bigger picture. We don't encourage them to look at what I would call the minorities. The minority culture, the minority methods…."

"…but if you've come from…" |

	"…understanding of different people's behaviour… different culture… still within the parameters of in a sense the philosophy and also the culture and the rules of first world healthcare…" "People from everywhere but we assume I think that when they come here they become one of us and they don't. That's the problem. We assume that if somebody comes here from Latin America or from the Philippines or from Africa, they're overjoyed that they've got all this provision and they are desperate to have it but actually many of them are frightened by it cause it is not normal…"
"Equality, equity, social justice and how do we demonstrate that. Are we just throwing the terms at our students or are we actually demonstrating how we do that?"	**Respondent 8:** "Well I think we have to demonstrate more than just throwing the terms at them… but it's good admission criteria so that we do get the right students anyway so we don't get people who are likely to have a biased attitude and that goes more than just saying to them what do you know about the equality and diversity because again most people are intelligent enough to give you what they think you want whether they actually think that or not… a lot of the time just a very very strong misunderstanding between cultures… it's exposure other ways like maybe there's a good film that would show that understanding, the proper reading. I know it seems like a turn of the teaching styles but it is using the style that exposes people to those areas so you can use that for culture…"
"What values do you associate with the term?"	**Respondent 9:** "…do the people out there want to come to us, they may not. They may well prefer to be working in London, like the idea of a different environment, different workings etc… to creating a different kind of practitioner…"
"…everything we do as nurses and nurse educators relates to sustainable development…"	**Respondent 10:** "…like you are recommending a ridiculous diet to somebody who is on next to no benefits. You're recommending a diet plan to somebody who has no intention of doing it. And yeah, it is all about that sort of stuff…"

Behaviour Models/Practice

"How do you use this concept in your practice?"	**Respondent 1:** "I guess it's about making people aware of the issues and changing people's behaviours in sort of up to day so choosing a more sustainable way…" "I think that's sort of our behaviour in a way. I think it's sort of the linking things across… it's the effect of 30, 40, 50, 60 years adult kind of human kind of behaviour comes back to roost… When I think that.. I don't think that we could

	certainly… we simply talk about things like good rehabilitation practice. I think when anybody talks about things like equity, equality to some extent…"
"How do you use this concept in your practice?"	**Respondent 2:** "…we don't actually practice and…"
"How would you consider using ESD explicitly?"	**Respondent 4:** "…how people feel about taking drugs when they're not ill and therefore the effect on their behaviour but also how they feel about it…" "…change their behaviour and…" "Either we don't say it or there has been a change in behaviour. It is to a certain extent, when in Rome…"
"…the minute you talk about climate change people think it's all to do with ecology and the environment…."	**Respondent 5:** "…as perhaps a Prochaska and Diclemente which is actually a model of health behaviour but it has been used to help people use their behaviour from one thing to another and there is some evidence in relation to addictive behaviour so it is a very effective way of working. So I think that has proven to be a sustainable because there is an evidence base behind it…" "And then get them to say, having understood this model, how would you apply this model which is a sustainability model. How would you apply this model to your future practice and what might be the limitations so it has always been applied but it just was not called sustainability…" "But even things like public health. Public health has always really been about sustainability…" "…the assignment for the public health unit, students are asked to critique what they currently do and basically identified it's not really health promotion as such it is just health education…"
"Where does nurse education fit in?"	**Respondent 6:** "The care for. Well I think the thing is that what we try to do is make it relevant to everything else that they are learning. We try to make it relevant to their practice, their everyday practice in terms of things like fluid balance and as I say skincare and taking you know just general observation as well of individuals. I think that's really important and being able to transfer that theory into practice relating normal physiology to disordered physiology. That's what we try to do…" "Cut the cycle, cut the need for antibiotics because the thing is that the antibiotics obviously in the long run will cause more problems… And have caused more problems than they solve. Although they have saved an enormous number of lives but where you can avoid it because then there are also issues

about your immune system developing if your immune system develops adequately then there is going to be less need for things like… But you've got to take it back further than that to lifestyle haven't you… I'm just thinking of the perception that kids today don't develop immunity has effectively because they are not getting exposure, safe exposure to… Disinfectant etc where social cleaning might probably be enough and we don't like them play in the mud and climb trees… Go in the river and stuff like that which is probably where we got our immune systems from…"

"Well yes because I think again because it gives the students a perspective. It means that then they can integrate that with their practice and also try and see it from the patients point of view rather than … I did recently about skills and having skills and the overseas nurses, almost all were women, stated that they felt that their training, although it wasn't academic in the same sense as our training is and it was a bit more teacher centred than perhaps it is here, they did feel that they learned skills much more effectively and they often felt frustrated that they were not allowed to use those skills in practice…"

"I thought, that's sort of interesting in the light of the amount of time and effort we put into teaching skills here. So where does it go. I don't know, somewhere between here and practice it falls down a big deep pit and gets lodged… they have got to be fit for purpose. OK they don't know everything and we know they don't know everything but they have got to be able to function certainly at that basic level of recognising the physical requirements of a patient and supporting those and…"

"Well if we're teaching things that are then not being transferred into practice then it's a pointless…"

"In the future we have to relook at CPPD and it has got to be more practice orientated. It has got to be more skills orientated and with assessment in practice…"

"I'm just thinking that after doing a degree, the first maybe couple of years of practice to be that. You know, really getting deeply into practice and doing all those things like observing and caring… Yeah and applying…" "

Respondent 7: "…beginning to question practice…"

"I think it's equally as confrontational for lecturers but probably more so in practice, when people ask you why or how or why don't you do something different, many of us see it as an insult or a threat because it's as though the challenge is saying your practice is bad. Or when people say can we try something different, why would you need to try it different, I am doing it right and I think again it's about the culture very much of nursing. I think when you look at doctors, doctors are used to challenging one another. Why don't we try it this way, should we try it that way, let's look at this, let's look at that and

	they work like that. But nurses have always been very protective of their practice… I think it's historical. I mean I think part of it is probably because I mean when I go back to when I qualified you did as you were told and I think nursing has evolved to a position where nurses have begun to climb what I would call the autonomy ladder and they are beginning now to take responsibility for themselves. They're accountable as nurses. Some of them are beginning to question practice…"
"Are we enabling those nurses and empowering those nurses to change practice, to examine practice, to make it more sustainable…."	"I think we've gone some way along the line. I think there are some units and I think there has been a change over recent years to much more sort of student led units where the students are encouraged in other ways to find some stuff and come back and to talk amongst themselves and to agree, to disagree and to challenge one another and I think there is that but I think though that is what we were talking about a while ago. One of the things that we don't encourage them to do enough is to look at the bigger picture…"
"…how can we engender or encourage an attitude that sees sustainability as even practical…"	**Respondent 8:** "We're not and some of that is also correct in the right approach, for example, the students are asked to talk about an alcoholic and say well actually that generates a bad attitude. We should talk about somebody who drinks heavily. We shouldn't stereotype and if students in their discussion tend to stereotype then we should correct them straightaway and say actually you're looking at stereotypical behaviour. From a sustainable point of view then then you are sort of then hopefully developing the right attitude. That attitude should be passed on to patient care and hopefully that would then keep a less judgemental attitude within care as well. I think…"
	"…although I would question whether they in practice always want to see it. But things like decision-making, questioning. The reason why I say they'd probably want it in the clinical is that it sometimes seems that people aren't always encouraged to be questioning in practice only questioning to a point. I think one of the things with education…"
	"Pharmacodynamics and pharmacokinetics and I was talking about the first part of that we deliver and the risks that certain medications have because of that and not just the therapeutic change and liver failure. So I told them the story of a young girl I looked after who was given paracetamol to reduce a fever and then was given some Lemsip which of course has paracetamol in it and she went into liver failure. Now that story is probably more likely to hold with the risks in giving paracetamol. It is probably slightly irrelevant to the main subject I was teaching…."
	"But that's sustainable because now hopefully…. if you are talking about sustainability of passing that on then they would hopefully be thinking about that for when they go into practice so they are very careful about giving paracetamol and not first checking that they are no on co co-codamol or one of the

	other double preparations… And not only that, also hopefully cause it's part of the health education, they will be saying to patients actually paracetamol isn't this innocuous little thing you can buy over the counter it is actually a very dangerous drug, be very careful with it and obviously I suppose if you want to go down to figures if you can save a couple of liver transplants you are also saving a lot of money…. it can be fatal. So people will remember that more. Oh paracetamol I remember he was telling me about that poor young girl who was helicoptered you know…"

"How do we address it and what we teach. Well we should be teaching things like being aware of everybody's different beliefs and practices so a good assessment for example when you discuss that you are making sure they take account of people's say dietary needs from religious, cultural or belief point of view and making sure that once they are in practice that the patient gets the vegetarian diet or they get the kosher or halal diet so in that way it is making sure it teaches even handedly. But also part of that is actually how you treat students as well because if you have an attitude then that is going to give a message to the students that that attitude is OK. Not all students but some students and, for example, if we are seen to be treating certain groups of students unfairly then how do we expect them to be flexible and not treat people fairly or unfairly or unfairly in practice when we do the same thing…."

"I honestly think and I am not sure if this is sustainable or whether you can use it or not. Our Achilles heel in nursing is clinical practice teaching and that's not knocking the people in clinical practice it is just that it is so poorly managed and it's poorly managed by the NMC. We no longer have a teaching in clinical practice course cause we don't have teaching anymore it is facilitation of learning… And that is the important thing isn't. I suppose there again that's teaching the evidence-based practice process where the people are building up knowledge and adding to it…" |
| "…the United Kingdom sits as part of a greater society…"

"What do you think prevents us from practicing and educating our nurses…" | **Respondent 9:** "…Well it does, but I mean we say it but we don't practice it, if you know what I mean…"

"I suspect it is the nature of the job itself that is preventing us..."

"There is a difference in terms of the expectation of the curriculum for the students compared to the general students. So in the curriculum we have had one or two different modules, the Children and Family module for example…" |
| "Or how can your practice influence what happens out there?..." | **Respondent 10:** "So by this are you saying how can my education actually improve people's lot…"

"Right. Well in neurosciences I think the area that is probably badly addressed and which could have a real sustainable |

	influence is the education of individuals, society, cabinet ministers whoever, in the application of law, you know thinks like cycle helmets because cycling is now being greatly encouraged etc, our attitudes towards cyclists, cyclists attitudes towards other things.
"OK. Do you use the term 'sustainable development' in your delivery?..." "…Why?.."	"No…" "I think that stems from the fact that I said earlier that it is a misunderstood term and if I did say it I would probably spend as long trying to explain what I meant by it as I would actually getting anything across and I think that's a sadness… I think it is a shame because I think sustainable development is something that would impact every single session we did and therefore if it became a standard input then it would have much more impact than doing a session on…"
"…Adhering to the code, being professionals, changing, facilitating change out there that then affects the wider community. Being advocates for our patients. All which lend themselves to sustainable development…"	"I would say, possibly quite controversially…" "I think that we are less concerned about patient autonomy. The majority of nurses are more concerned possibly about litigation themselves and rather than being bound by the Code of Conduct, they use the Code of Conduct to hide behind and to not be forward thinking professional people but to say I can't do that because my code says I can't. I actually believe that that change has occurred because of changes in government who I blame for most things, who suddenly brought forward this respect agenda, nobody's wrong agenda, it's always somebody else's fault agenda and this claims agenda that has actually put hospital trusts first and hence nurses second on the back foot. The current or more than one government, but hospital trusts being bound by targets rather than by care and that following it into nurses and I think it is quite hard to undo…" "I would love to think that with nurses being the largest employer in the country pretty much or one of those, that it should come from them. It should come from them as innately caring people who also have a professional knowledge that they want to drive things forward. But either their wings are being clipped in this or we are getting the wrong people in the first place which is what I was suggesting. The idea that the government are coming forward with at the moment which is probably for political reasons more than anything, but the whole idea of actually attempting to test somebody's caring, somebody's compassion, somebody's whatever, is a fantastic idea as opposed to if you are not seen in A and E in four hours we will financially penalise you. It's learning along those lines and being able to nurture along those lines will be more sustainable in education…"
"…us at the core of the profession, where do we come in?..."	"I think we are phenomenally influential and we sometimes underestimate that…"

Professional Leadership

"How have your current and initial understandings changed over time, if at all?"	**Respondent 1:** "…what we do now it won't be a revolution it will be a development in what goes …"
"Okay. We're not able to cure everybody so what I'm taking on board that you're saying is there will be issues such as long-term conditions…" "How do we manage those in a sustainable way?..."	**Respondent 2:** "Yes…" "…as long as it's correctly being managed by the whole multi-disciplinary team and the nurse plays a pivotal and vital role in that particular team… nurse specialist and things that you get nurse specialists in a particular field, excellent in…" "And it's sometimes very NHSey is that we go from crisis to crisis to crisis and manage and deal with than and well we've got through that one oh here comes the next one and perhaps we're not being forward thinking enough but and that might be right, that might be wrong but in a way we do have to deal with what we've got in now and if people are unwell and ill we need to be dealt with now not forwardly thinking ooh in a couple of years' time we can actually sort of like deal and treat with you but perhaps we need to get a bit more of a mixture of that thinking out of the box…."
"How have your current and initial understandings changed over time, if at all?"	**Respondent 3:** "I think it is that education that will equip the individual to be able to function globally under any condition, having the necessary expertise to adapt and to remain flexible"
"So, education for sustainable development…"	**Respondent 4:** "For staff nurses well for trained nurses…" "All of that… what do nurses need to be able to do now and you know attitude and so we do have things like post-registration courses within specialisms so people want the specialisms but we do have things like mentoring courses that people can do and we do have mentoring development course for people that are going to go into management roles. You know we do have things…"
	Respondent 5: "Yeah the nursing union reacted too late. It's very annoying because the BMA and the Royal College of Physicians from the outset opposed the bill and they had lots of things amended and actually protected their own members. The nursing unions and the Royal College of Physiotherapy etc they all stepped in really late when it had actually many readings and considering they are a much bigger workforce than the doctors, they could have actually change a lot of things but chose not to…."

"…how can we get that through within our nursing curriculum?..."	"Because I think there is a lack of understanding. The thing is that it is probably in some ways addressed. It's just that people don't necessarily name it that or understand… They haven't made the connection yeah… About protecting the masses and trying to prevent etc etc… So it has always been part, well since I took over the unit it has always been part of the unit but necessarily the course… Well it is a big part of public health…"

"I think it always pays to start with the top. You need to have an understanding about what it is, what the issues are in terms of the health which is the bit people might be able to listen to. How it affects the economy, the workforce. All these things which are all interlinked whether people think of it or not. Part of the problem I think as well is that sometimes people don't understand how a lot of things have anything to do with nursing…"

"Health is everything. There's no such thing, housing, education, economy everything is health and if you're a nurse that's your business… We need to address health is not about a physical condition and treatment and hospital. Health is about addressing people's housing, their food supplies, have access and availability to all of these things are health and all of that is about sustainability… if we're talking about training nurses to be the forefront of the healthcare system for an evolving healthcare system we need to look at social model of health…" |
| "How can we sustain that service so that the same service and its quality is the same for your patient today as you would like it to be in the future…" | **Respondent 6:** "Well it's about applying evidence-based. It's about research. It's about embracing new technology but obviously that has obviously got to be done within a budget and…."

"It has to be evidence-based…" |
| "How do you think we do that if that's your view of what it is in terms of nurse education?..."

"…Cause it's challenging…." | **Respondent 7:** "As lecturers we need to help people to understand what the real world is like and then I think we have to encourage them to develop their own ideas and their own sustainability and their own, in a sense, protective mechanisms or support methods I probably mean more than protective methods but support mechanisms so that they can live in that world. But I think we also have to empower them to be leaders. I think sometimes so often we tell them how things should be, but what we need to be doing is helping them develop so that they are empowered sufficiently to make suggestions to sort of try things out and to see with other people, what they see as the way forward. So I think it is about empowering and encouraging them to be leaders rather than leading them…"

"Because it's challenging and because many of them have not before. They have been told what to do and that is what they |

"…. Is that sustainable though, being told what to do?..."	want. They want to be told what to do…" "Well I don't think it is and that's why I think in the answer to the previous question, that's why I said we need to empower them. Because if you are going to sustain something you need to have a role in that. You need to be committed to that. You need to be moving forward within roles, standing on the outside putting your two pennies in. I think if you want to sustain something you have to have both your feet in the pot. You have to be interested in it…."
"Manage change, being flexible, being adaptable, being a leader, being a change agent…"	**Respondent 8:** "…being able to function in that particular community…" "That's another form of sustainable development isn't it? It is actually being able to sustain there and then of course you can say cause we are such a multi-cultural society now, that how would you maintain that care so that that care carries on once you have pulled back as the expert, the nurse, so that that care carries on in the community according to their own values and rights and knowledge and understanding.
"It is how we utilise it as well as understanding just how much influence potentially we have got…"	**Respondent 9:** "Potentially we have a lot of influence. I think that we don't have leadership and I think the leadership that we have are not interested in these kinds of issues. Having said that, if they understood that basic nursing care comes under the element of sustainable development, I think we could influence. Our leaders don't seem to have that wide perspective on many things. …"
"How can your practice influence what happens out there?..." "I see that as part of our role…"	**Respondent 10:** "Well in neurosciences I think the area that is probably badly addressed and which could have a real sustainable influence is the education of individuals, society, cabinet ministers whoever, in the application of law, you know thinks like cycle helmets because cycling is now being greatly encouraged etc, our attitudes towards cyclists, cyclists attitudes towards other things. Even things like children's playgrounds in the way that they are planned and who they include in the planning so that in actual fact if we had helmets on bikes, if we did this and if as a role model, I can actually drive safely always wearing my seatbelt, doing whatever, then of course I would hopefully be less likely to end up in the neurosciences unit and hence that education will be more valuable than possibly somebody knowing some deep theory about something…." "That we are probably further behind in sustainability development now than we were twenty years ago…." "The majority of nurses are more concerned possibly about litigation themselves and rather than being bound by the Code of Conduct, they use the Code of Conduct to hide behind and to not be forward thinking professional people but to say I can't do that because my code says I can't. I actually believe that that change has occurred because of changes in

239

	government who I blame for most things, who suddenly brought forward this respect agenda, nobody's wrong agenda, it's always somebody else's fault agenda and…"

Recruitment (Work, Recruitment, Employ, Work)

"You think of any unit, any module and there would be an element of education for sustainability in there. Is there anything else you want to add?"	**Respondent 1:** "There are lots issues aren't there about the way nursing – I mean in terms of recruitment and I think we're getting more aware of it now but in a way it's pretty indefensible to be employing nurses from India for example…." "Where they are crying out for nurses…" "In a rich county I think we're perhaps a little bit more careful about getting nurses from Africa…" "I think those are sort of big issues for nursing aren't they…"
"…in order to add and make it more relevant and more sustainable further on to keep it going…." "How do you decide as a manager the division of resources?"	**Respondent 6:** "I was watching something the other night and they were talking about one of the towns in the north, you know when mining stopped altogether and they are still having difficulty. Somebody said he worked for a call centre and then they moved it to Outer Mongolia or somewhere. So why do we do things like that. You know, why are we doing that and leaving our own…." "But surely, ultimately, at the end of the day if you've got everybody in work and paying their taxes we'd be a lot better off. We'd be a lot better off. I can appreciate it will take an awful lot to turn it around and I understand that people in Outer Mongolia also need jobs as well… Yeah. I think in London you don't have a lot of choice in that because people tend to move around anyway don't they…." "I mean I think although having said that things have changed a lot because we're getting students in established families with kids and… who have school commitments and stuff like that but it still frustrates me to think that the people from South London having to travel to North London to get their practice…." "You cannot expect any human being to travel for two hour to get to work at 7 o'clock in the morning. It's unreasonable… and if they are coming off a late duty and then on an early they actually don't have the recommended amount of gaps between…"
"…how [do] we do that?"	**Respondent 8:** "I suppose some of that is also… it sounds a bit of cheek really but it's good admission criteria so that we do get the right students anyway so we don't get people who

	are likely to have a biased attitude and that goes more than just saying to them what do you know about the equality and diversity because again most people are intelligent enough to give you what they think you want whether they actually think that or not".
"I also look at the scenario from even human resources in terms of sustainable development and I look at the staff that we look to employ even here within the institution and we look towards the local community. How sustainable is that, that particular viewpoint. Because there is an element of sustainable development there, already inbuilt…"	**Respondent 9:** "I suppose it should be a natural thing but of course it depends very much on the skills and the ability that we have within our local population, you know whether they match in a sense what we are requiring and what we are looking for. It makes sense that you should use local people, local resources, local produce like if we go to Waitrose, you know you see they have one section where they are using all sort of locally produced stuff so I suppose from a sustainability point of view in terms of human capital, it makes sense to actually use people locally but of course as I said it is a two way process. It's one, do we have the people out there that have the skills and ability that will help us. Secondly, do the people out there want to come to us, they may not. They may well prefer to be working in London, like the idea of a different environment, different workings etc. But it makes sense because you save travelling costs. But of course its pros and cons, people may well feel that they prefer to not work locally because of London weighting and all those kinds of things. So yes, in terms of human resources I would say yes it makes sense to go for local people. But it very much depends on the expertise we want too. If the expertise isn't here locally I suppose our first job would be to search locally first and then if we can't find what we want then you know we go further afield…"
"OK. Summarise what you have told me about your understanding therefore of education sustainability and its relevance to nurse education if you could…"	**Respondent 10:** "I think it is absolutely relevant to everything which would include all forms of education and of course nurse education which is what we're interested in. In terms of summarising, I think the term has to be more explicit and clearer to people. It has to be more explicit with the curriculum and feed through the whole of the curriculum and people have to understand what the expectations will then be at the end and I think in the recruitment of not just the students but the staff who work here, it has to be part and parcel of any interview process or recruitment process that goes on. I think if you probably asked twenty people to define it, you'd get twenty complete different answers and I think that is partly where the problem stems because a lot of people look at sustainability as whether you bought tables from an ethical buyer and whether like me you are forever switching off lights and therefore they are missing a huge part of it…"

Emotional Perspective (Personal, Me, Feel, Think)

"What's there that we're just not addressing?..."	**Respondent 1:** "I think that it strikes me and I might be wrong but in my opinion we obviously… the world is very full of people. I don't think we would need to sort of talk about limiting populations or anything… I'll leave it out anyway but I think we're on the very cusp of what is manageable and what isn't and I think we're rapidly going down the hill and we're creating a future for our children which is not going to be manageable for them."
"Okay. I'm tracking back now. What is the whole purpose of care?..."	**Respondent 2:** "In your opinion… In my opinion is to as vomity as it sounds it is to look after ill or sick people and to be part of the team that's attempting to make that person better or as comfortable as we can possibly make. Because we're not going to be able to cure everybody…" "If there is a list I would be wanting still to be able to produce at the end of it all a caring, empathetic, compassionate say practitioner notes, that's there to care and look after people that are unwell in whatever shape, way or form and remembering the fundamentals of what nursing is actually about and to keep the humanisticness approach into it and not to be clouded by cause sometimes you can't see the wood for the trees because you get so sort of engrossed and actually sort of into…"
"What you've just described, I mean is it influenced by anything that you've done, personally, professionally anything? Has anything influenced it?"	**Respondent 3:** "I have looked at it. I have now kind of refined my own understanding of education for sustainability…" "The mind-set is an attitude and it is also a desire for nurses to prepare themselves in such a way that they can function globally and not limit themselves to a particular setting. They may have their speciality but in that speciality they should be prepared to move and to function in any part of the world regardless of the geographically challenges and the environmental challenges that they my face in those places. So I am saying that education for nurses generally should be more robust than it is at the moment…."
"You were talking about the greater good…."	**Respondent 4:** "Yeah, the greatest good for the greatest number…" "The whole utilitarian approach, the greatest good for the greatest number and in that the individual suffers but in the other one the population suffers…" "I think that you have to talk about the fact that we are not just individuals, we don't just operate alone but what we do affects what everybody else does…"

"But what are the advantages of helping people to help themselves. There has got to be something in it for the rest of us…."	**Respondent 5:** "I suppose the long term. If you look at it in its kind of bigger picture, the long-term advantages are that it should be financially more viable, that people feel that they are part of something, they feel a bit empowered, their self-esteem is raised. People don't particularly want to be dependent etc. It is all of those things…"
	"You see that's the other concern that I would have because I think we need to make the nursing curriculum something which applies everywhere and I think number one it's not going to get through validation, it's completely different to something that everybody else is doing…."
	"I think they see themselves as something in the same premises but not necessarily the same mind-set…"
	"I wouldn't say it is helpful I think it is essential…."
"Is it not possible for us to take the prescription and use it and apply it but leave a little space for that forward thinking model without being told to do it by the NMC or statutory standard….."	"…my problem I think is the way that we have done it in the past, like this needs to be on the agenda so it needs to be added to every unit. Again the example of user involvement. Oh, health promotion needs to be added as a theme thread through every unit. I mean then it becomes meaningless because people are adding it in or not adding it in because they don't understand it or they don't find it useful. Whereas I think if we had it user involvement, sustainability, attached to units where they are appropriate, where there is an appropriate application…"
"You mentioned about the technology and the budget. Everything comes at a cost…."	**Respondent 6:** "I think the things is that I guess you've got to weigh the benefit against the cost at the end of the day haven't you so you've got to look at it in the light of how it affects… I can see in the future we've got a lot of exciting technology potentially, coming on board like, genetic therapy, stem cell research and things like pharmacogenetics which will tailor medications to individual patients and their individual genetic makeup which would reduce the things like side-effects and complications but eventually that is going to reduce costs. Well, in theory. For me, considering the area that I teach, this stuff is very exciting. To be able to, for example, replace disordered genes. You know if you have a child born with sickle cell and you can treat them straightaway by introducing a good copy of the defective gene and remove all those symptoms that are likely to occur and those hospital admissions or that pain and distress from that individual. Now that's going to costs presumably huge amounts of money but at the end of the day, the human costs are priceless isn't it. Absolutely priceless."
"At what point would a newly qualified nurse feel like they could make a contribution to extreme weather conditions planning for	**Respondent 7:** "Not at all… cause I don't think we recognise it as being part of the training of the nurse. I personally think the problem is that we see nurses as they have got to be able to do a bed bath, they have got to be able to empty a catheter bag, they've got to be able to get someone to theatre and be able to get them back. Be part of the consent process, they

example…”	have got to be able, they've got to be able, they've got to be able and actually therefore we're training them to do the job but not so much to think about the job… Yes and I think also I may not have articulated as well in the beginning when I was saying we have got to train them not to do as we say but we've got to train them so that they can think for themselves and I think that's the problem. So rather than, even in practice and in the universities, this is the way it is done and when students say but why or why can't it be done some other way, some of us are quite open to that and some of us and particularly people in practice, aren't so open to it because they have been there for many years and…”
“It's not just caring, it's the whole issue of compassion which is a big deal nowadays that nurses, you know newly qualified nurses have difficulty expressing care and compassion….”	**Respondent 8:** “They seem to lack empathy, yeah… That sustainability education part isn't there. Whether they lose it or they are just not taught it, I just don't know. Now we really can go into some of the depths… I mean I really do sometimes question whether this is a by-product of the move into higher education. In theory it shouldn't be but it does seem to have got worst since we haven't' had a project 2000. Now maybe I'm wrong….”
“Maybe you're not….”	“In my old days people did seem to be more caring. We did have the strict old sisters who were right battle-axes and they used to call you Mr *********.and shout at me and stuff but actually they could also be very very caring and very very fair. Some of the sisters who gave you the worst bollockings were actually the nicest and I had one sister and I thought she hated me and at the end when she insisted on doing my report I thought here we go and it was the best report I've ever had so although she always told me off, she was fair as well and you don't seem to see that anymore. You see people who are a lot more judgemental now and it just makes me wonder this moving to higher education whether we really have... It should have worked…”
“It could work…”	“But there is something missing and I don't know what is missing and I think one of the things actually is missing is there is a massive theory practice gap. Not in so much knowledge but in how the education is delivered and at one time you'd work with somebody, even a third year student and you would really learn from them how to care. Now the mentors don't do that anymore and they are no longer mentors and that is what really irritates me. They are actually assessors and sometimes they are more of a punitive thing and it isn't the good old friendly advisor which is what a mentor is supposed to be, it is very much there's your patients, go and do that, I'll be watching how you do it and the attitude is you have got to please me because I am going to pass you or fail you and they just seems to have lost something, that was always there but that sharing and caring and work seems to have gone. The mentors don't teach any more…”
“And that's not sustainable?”	“No it isn't sustainable… they've lost that and I think that is the biggest problem. I honestly think and I am not sure if this is

	sustainable or whether you can use it or not. Our Achilles heel in nursing is clinical practice teaching and that's not knocking the people in clinical practice it is just that it is so poorly managed and it's poorly managed by the NMC. We no longer have a teaching in clinical practice course cause we don't have teaching anymore it is facilitation of learning…"
"It is how we utilise it as well as understanding just how much influence potentially we have got…."	**Respondent 9:** "Perhaps you ought to be a pathfinder or whatever you call them because I think that the way the concept is being eliminated in your sort of work, I think it would be very interesting to actually test it…" "I'm not sure how relevant it is. I think certainly I do feel passionately about this distinction between the acute sector nurse and the primary care…" "And the voids yes and I do think that what we need to do is to bring the two together and the new curriculum is meant to do that and I was quite excited about the new curriculum in the sense that I thought that there would be a good deal more public health which I see has come under sustainable development…" "I don't want to kind of continue whinging about this, but I do feel that we in a sense and I go back to our primary care nurses that to me we were working hard to creating a different kind of practitioner and in a sense in primary care it is fine but I think there is this difficulty that once they go out into practice that they then get moulded and shaped and I think if we want change, you know if you want people to start thinking in terms of sustainability, that we have got to start with the acute sector because I think that that is where we need to begin and I think that if we can start in that sector we can begin to shift people's thinking so that they can see that almost everything that they do is to do with sustainability. You know that everything is to do with that and then we can then begin to see change because I think primary care people already are familiar with the term and already see what they are doing as part of sustainable development but I don't think acute sector do see that…"
"Summarise what you have told me about your understanding if you could…" "But the same twenty who give you twenty different answers	**Respondent 10:** "I think it is absolutely relevant to everything which would include all forms of education and of course nurse education which is what we're interested in. In terms of summarising, I think the term has to be more explicit and clearer to people. It has to be more explicit with the curriculum and feed through the whole of the curriculum and people have to understand what the expectations will then be at the end and I think in the recruitment of not just the students but the staff who work here, it has to be part and parcel of any interview process or recruitment process that goes on. I think if you probably asked twenty people to define it, you'd get twenty complete different answers and I think that is partly where the problem stems because a lot of people look at sustainability as whether you bought tables from an ethical

they'd each possibly, potentially all be correct"	buyer and whether like me you are forever switching off lights and therefore they are missing a huge part of it…." "Absolutely yeah…" "…this is where it so often goes wrong because number one you change government every five …."

Appendix 5: LSBU: Corporate Strategy: 2015-2020

London
South Bank
University

Corporate Strategy: 2015 – 2020

Final draft, agreed by Board of Governors 8 July 2014

Contents

Our mission: to be recognised as an enterprising civic university that addresses real world challenges

London South Bank University has been transforming lives, communities and businesses for over 120 years. At its creation, the Prince of Wales and Archbishop of Canterbury were instrumental in a fundraising campaign which included 55000 letters of appeal and led to collection boxes being placed on London's bridges. The aims were to improve the social mobility of the people of south east London by improving their employment opportunities and to support the community by providing access to applied knowledge that would advance their businesses. Other than an increasingly global reach that mission remains almost unchanged today –LSBU provides a highly applied academic environment which supports students into professional careers by providing the knowledge and skills attractive to employers. At the same time, it supports employers and the professions by providing the education, consultancy and high quality applied research they need to grow their businesses.

This strategy sets out our vision for 2015-2020, highlighting just some of the exciting and innovative work we're planning and doing. It's backed by a five-year Corporate Delivery Plan, annually-refreshed to clarify objectives for the coming year.

Foreword: building on our past to shape our future

The higher education sector and the market within which we operate has changed and continues to develop rapidly and so we must continue to innovate in order to keep pace. The recent decision to remove student number controls means we will inevitably see recruitment becoming an even more heated environment and this will be fuelled by new entrants such as private providers and overseas institutions, plus UK universities setting up London campuses. If anyone doubts the scale of change consider the fact that in 2010 only £30 million of public funding went to private providers and by 2015 this will be approaching £1billion.

Students do not want to simply sit in a lecture theatre and they will, quite rightly, continue to demand more for their money and they will expect that their investment in education will enhance their future career prospects. It is clear that the institutions who strive to successfully meet and manage these expectations are the ones who will prosper. Providing a personalised student experience leading to strong graduate outcomes will become increasingly important and given our focus on professional education, is an area in which we must excel.

As the number and diversity of providers grows it will be important to ensure a degree of differentiation from competitors. Universities that succeed in this new environment will be ones that build on their strengths to ensure they develop a strong external reputation for the quality of what they deliver and indeed with the increase in the number of providers new quality measures will no doubt be linked to funding success. For example there is the current discussion around linking student loans and fee levels to graduate employment or retention rates and league table performance will of course continue to be of keen interest to students, employers, commissioners and funding agencies in the UK and overseas.

In this strategy I therefore propose to build on the strengths of our university to enhance our reputation for supporting student success, delivering real world impact through our academic activity and by building on our history of providing opportunities through partnership.

Developing into a university that is recognised for addressing society's challenges by engaging with partners on both a local and global scale is not in itself a significant move away from who we are now. We have a reputation for courses relevant to the professions, for applied research and for business engagement and our teaching is becoming more and more dynamic as we produce enterprising graduates ready for a global market. Our academic expertise has real world impact and is drawn upon by commercial and government organisations, so it makes sense to build our future ambitions upon the relevance and strengths of our current identity. Examples of recent activity include:

- 960 employers send 4000 of their staff to be educated by LSBU each year
- Over 150 British SMEs and major companies have formed commercial research partnerships with LSBU
- The Clarence Centre for Enterprise and Innovation is now home to 48 student-led businesses and social enterprises: companies in our business incubation suite generate an annual turnover of over £37m

We owe it to ourselves and to our students to refocus and redouble our ambition. What I want from our future may be viewed as radical but not if you look at our past. Trading on our specialisms and moulding graduates focused on success is what we have done historically and is what we continue to do today. Therefore the new vision set out in this document for LSBU is not a drastic change from where we have come from and where we find ourselves now: it's evolutionary, not revolutionary.

Professor David Phoenix

250

Strategy at a glance: key outcomes 2015-2020

Ensuring students develop skills and aspiration to enter employment or further study and so become sought after by employers, or have the skills and confidence to start their own businesses, or develop a portfolio career

Strengthening our national position and our profile as a leading university for professionally focused education underpinned by a highly applied, research

Ensuring that students are seen as participants in their learning and that the student voice is encouraged and listened to

Delivering outstanding economic, social and cultural benefits from our intellectual capital, by connecting our teaching and research with the real world through commercial activities and via socia enterprise

Ensuring we work with local partners to provide opportunities for students with the potential to succeed and through active engagement retain them

Creating an environment which attracts and fosters the very best staff, and within which all staff, whatever their role, fee valued and proud of their university and tak appropriate responsibility for its development

Developing the multicultural community of students and staff, working through international alliances and partnerships to further build our capacity and capabilities in education, research and enterprise

Strategically investing in the creation of first class facilities and ensuring that they are underpinned by services which are responsive to academic needs and outcome focused
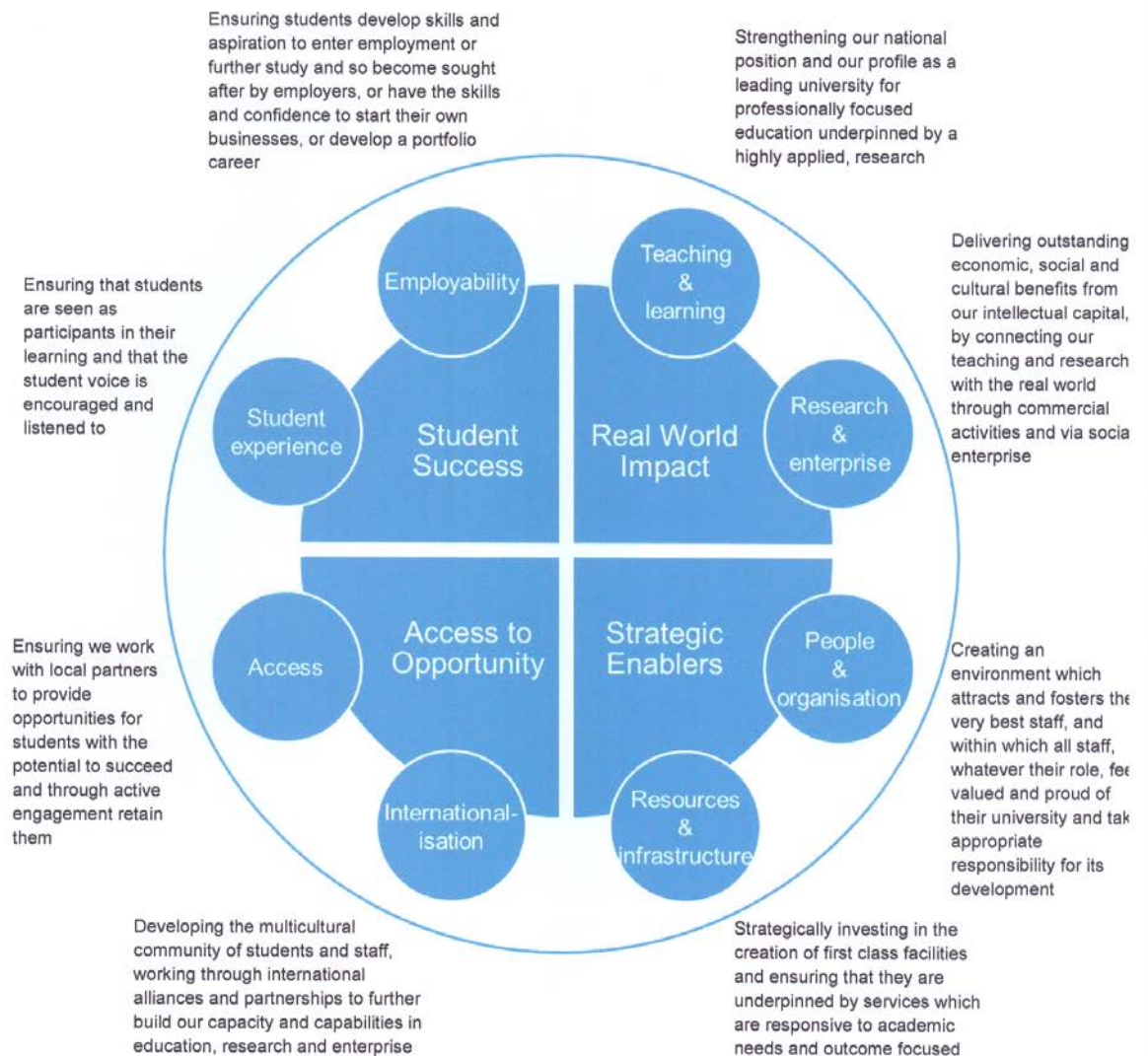
Figure 1: our strategic outcomes and goals, 2015-2020

We want our success to be recognised, so by 2020 we aim to be London's top modern university

Outcome 1 - Student success

Ensuring we are externally recognised for providing a personalised, high calibre education which equips graduates for employment and prepares them to make a positive contribution to society.

Students are investing not only money but a significant period of their lives to obtain an education at London South Bank. They are investing in a relationship with LSBU in the expectation that this relationship will enhance the rest of their lives by aiding their personal development and improving their future earnings. In paying fees for their study, either at undergraduate or postgraduate level, students are looking for a personalised, applied experience based around engagement with staff, peers and employers. In this context we have to recognise that each student will have a different set of aspirations and the approach we take has to allow them a degree of flexibility in identifying their own priorities and goals. We also need to recognise differences in cohort requirements – for example the experience that postgraduates will be seeking will not be the same as those of the undergraduate population.

As student expectation increases, there are also a growing number of employers expressing concern that universities are focusing on developing knowledge at the expense of the attributes and capabilities that translate academic achievement into career success. To therefore meet the needs of employers and health commissioners, whilst also providing a more personalised experience that meets student expectation, we need to ensure we are providing a learning pathway that focuses not just on knowledge but on practice. Through this approach we should expect students not only to develop an understanding of the discipline based knowledge but we should ensure that they develop true expertise as evidenced by their ability to apply their knowledge in real world situations. In addition as part of the LSBU offer we need to ensure that every student has the option to access a range of activities designed to further support their own professional development so enhancing their confidence and aspiration.

Our major change plans 2015-2020

- We'll refine the LSBU learning pathway – the knowledge, opportunities, expertise and development that ensure our graduates have the right attributes for success – and embed this blended approach in everything we do

Opportunities
Using our links with the wider world to provide placements, volunteering and internships, supporting student and staff start-ups

Knowledge
Delivering learning in the most appropriate way for each student – teaching, group work, skills development and blended learning

Development
Building our graduates confidence and strengthening their position in the marketplace

Expertise
Putting knowledge into practice, applying our knowledge to real life situations and providing a very applied, personalised learning experience

Figure 2: the LSBU learning pathway

Goal 1: Employability	Ensuring students develop skills and aspiration to enter employment or further study and so become sought after by employers, or have the skills and confidence to start their own businesses, or develop a portfolio career
Goal 2: Student experience	Ensuring that students are seen as participants in their learning and that the student voice is encouraged and listened to

Where we'll be by 2020

- Students will rate us in the top quartile of all universities – based on their experience of LSBU
- 95% of our students will be in employment or further study within six months of graduating
- We'll be one of the ten best universities in the country for supporting and fostering student start ups

Student named in UK's top 30 social media activists

24-year-old LSBU student Lewis Hancox has been named in the Guardian's 'Top 30 under 30' social media activists. His documentary 'My Genderation' has been a key voice in the movement to educate and publicise issues around gender variance.

Student uses sport to improve livelihood for disadvantaged youngsters

LSBU student Stephen Addison has founded the organisation Box Up Crime, an initiative which uses the sport of boxing to deter disadvantaged young people from potentially criminal activity. The organisation has worked with over 12 schools across London and within its first seven months received five awards.

Enterprise associate named in top 100 most innovative businesses

LSBU Enterprise Associate, Arina Sprynz has been named among the 100 most innovative and resourceful small business in the UK for her loudspeaker systems, created using a patented combination of organic resin and ground glass.

253

Outcome 2 - Real world impact

Ensuring we provide dynamic evidence based education which is underpinned by highly applied research and enterprise activity.

One of our distinctive features is the highly applied nature of what we do. We need to ensure that within this context our teaching, research and enterprise interact and that through this interaction we are able to create a distinctive academic environment that motivates staff and students to succeed. To support student engagement we will develop courses that increasingly use blended learning with more knowledge being conveyed through digital media and a significant proportion of taught activity provided through practical sessions, workshops and seminars with a small group skill based focus. This approach will help support understanding and deeper learning whilst also providing students to gain greater individual support. Our external engagement will ensure courses are relevant to employers and by ensuring they are research informed we will develop the critical awareness in our students that employers want.

Our major change plans 2015-2020

- We will establish an internationally leading centre for research-informed teaching
- We'll create three internationally recognised, multi-disciplinary institutes focused around social enterprise and entrepreneurs, health and wellbeing, and engineering and sustainability
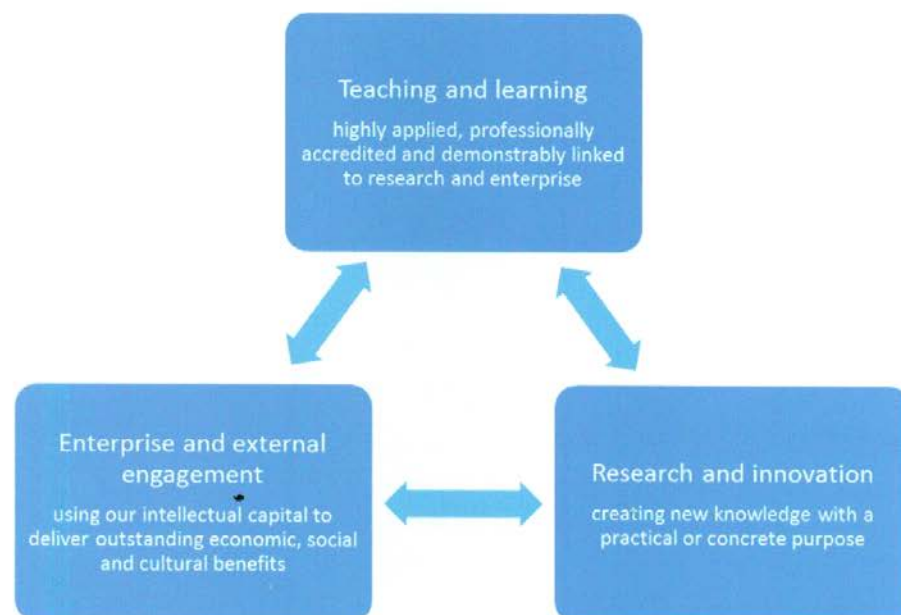

Figure 3: our real world impact – driven by integrated teaching and learning, research and innovation, enterprise and external engagement

254

Goal 3: Teaching & Learning	Our teaching will remain highly applied, professionally accredited and demonstrably linked to research and enterprise, delivering the attributes that will make our graduates highly sought after
Goal 4: Research & Enterprise	Delivering outstanding economic, social and cultural benefits from our intellectual capital, by connecting our teaching and research with the real world through commercial activities and via social enterprise

Where we'll be by 2020

- We will be in the top 50% of universities for both graduate employment and starting salaries
- We'll be in the top 50% of universities for income and activity recorded in the government's Higher Education, Business and Community Interaction Survey

State of the art 'Robot Detectives' able to climb buildings

LSBU's engineering team has been leading the way in terms of practical robot applications with a project called 'Robot Detectives' – the robotics team has been developing machines with attributes which allow them to access hard-to-reach places to carry out repairs and even rescue missions, such as under water or on the outside of tall buildings.

Age Simulation Suit helps LSBU lead the way in UK health care training

LSBU's Health is using a cutting-edge age simulation suit to provide healthcare students with a better understanding of the issues facing the elderly and infirm. The suit which uses weights, restrictive clothing, special glasses, and even electronically controlled gloves, will be incorporated into teaching programmes to ensure that LSBU continues to lead the way in healthcare training.

Law clinic inspires international universities to follow blue print

Academics from the University of Zagreb and Bilgi University, Istanbul, have visited LSBU's Legal Advice Clinic. Representatives from the two institutions came to London South Bank to get a better understanding of how the university's pioneering legal advice drop-in centre works, with a view to setting up similar projects of their own.

Partnerships that develop global brands and products

LSBU's Sports and Exercise Science Research Centre has an outstanding reputation within industry. Applying our expertise in foot and ankle biomechanics led to the patented heart of the world famous FitFlop, a product which has now sold over 22m pairs globally. FitFlop Ltd has kept it's close relationships with LSBU, funding our progressive research and development, includinga joint-funded PhD research programme

Outcome 3 - Access to Opportunity

Building opportunity through partnership: ensuring we are actively widening participation, engaging with our communities and a partner of choice

Universities need to have in place clear partnership strategies to not only protect their reputation, but also so that activity enhancing collaboration can be actively sought out and developed. Universities seeking to develop their reputation and the opportunities available to staff and students need clear criteria to evaluate the partnerships they form to ensure that they strengthen reputation and enhance standing. Such relationships need to be clearly defined at the outset and have constructive value adding impact for all parties. If these criteria are met then partnerships can provide a vehicle through which we can gain opportunities for our students, for example by providing volunteering and internship opportunities or study tours to our students. They also provide opportunities for staff in terms of research, enterprise, joint teaching activity and professional development.

In addition to benefits for our staff and students, we remain committed to extending and deepening our partnerships with the community which we serve and the schools and colleges in our region. We will create an environment for our staff and students to further develop civic engagement and professional partnerships, and continue to develop pathways into higher education for students in schools and colleges. The University has an established reputation for widening participation and remains committed to providing opportunity to all those with potential to succeed. Through work with partners and through our own outreach activity we will seek to attract students from all backgrounds and we will judge our success in terms of the proportion of students that successfully complete.

Our major change plans 2015-2020

- We will sponsor and support three Academies/ University Technical Colleges to help develop aspiration and enable early engagement with pupils
- We'll create three centres for research and enterprise in collaboration with key international partners

Figure 4: some of our partnerships around the world

256

Goal 5: Access	Ensuring we work with local partners to provide opportunities for students with the potential to succeed and through active engagement retain them
Goal 6: Internationalisation	Developing the multicultural community of students and staff, working through international alliances and partnerships to further build our capacity and capabilities in education, research and enterprise

Where we'll be by 2020

- We'll be above our benchmark for recruiting students from low-participation neighbourhoods, and for the number of these students achieving success in their chosen course of study
- We will have achieved a rating of 4 Stars in the QS Star Ratings – reflecting our status as a highly international university

The Confucius Institute for Traditional Chinese Medicine

Of 400 Confucius Institutes around the world promoting Chinese language and culture, LSBU's is one of the first to focus on Traditional Chinese Medicine , showcased through its Acupuncture course and teaching clinic .The Institute works with 46 primary and secondary schools teaching Chinese language and culture, trains over 200 staff and students each year in Mandarin and reaches tens of thousands of community members each year through Wellbeing Week and a Chinese New Year Roadshow. Through its network it creates opportunities for LSBU students to study and undertake internships in China, and has been awarded an excellence award for 5 consecutive years.

Science without Borders

LSBU has been selected as a partner for the prestigious UK-Brazil "Science without Borders" programme, which will be funding Brazilian students to study science based and informatics programmes in the UK. In the first year of participation, LSBU has been awarded 50 students – and the number of quality applications has significantly exceeded places available.

Creating futures for 11-19 year olds in our area

We're proud to sponsor the University Engineering Academy South Bank – offering our expertise in science, technology, engineering and maths through a state of the art learning environment to young people in Southwark and neighbouring boroughs. The first students arrive in September 2014, with 150 Year 7 places, and a 25-place Special Educational Needs unit

Strategic Enablers

In seeking to deliver our strategy we need to consider the barriers and challenges that could hinder the success of delivery. These factors relate to people, infrastructure, resources and our internal processes. If we do not have a workforce that is the correct 'shape', containing people with the correct skills and exhibiting appropriate behaviours we will fail to progress. The management and governance arrangements we develop need to be aligned with the strategy and provide a robust framework but within which there is space for staff, in all roles, to be creative and empowered to deliver. We need to ensure that we are able to attract, develop and foster the best staff and provide an environment that motivates them and enables them to deliver.

Similarly we need to ensure that the infrastructure is aligned with the strategy and that we invest resources in these activities that will take the strategy forward. The strategic enablers described below aim to deliver on our goals.
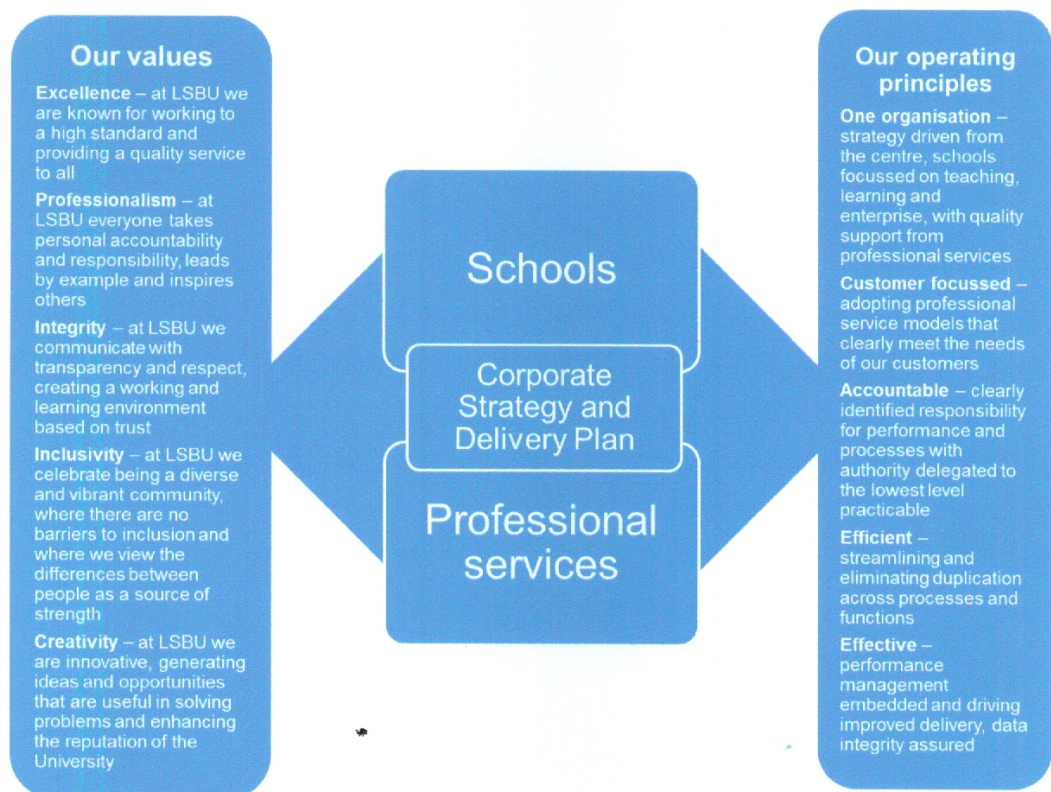
Our values

Excellence – at LSBU we are known for working to a high standard and providing a quality service to all

Professionalism – at LSBU everyone takes personal accountability and responsibility, leads by example and inspires others

Integrity – at LSBU we communicate with transparency and respect, creating a working and learning environment based on trust

Inclusivity – at LSBU we celebrate being a diverse and vibrant community, where there are no barriers to inclusion and where we view the differences between people as a source of strength

Creativity – at LSBU we are innovative, generating ideas and opportunities that are useful in solving problems and enhancing the reputation of the University

Schools

Corporate Strategy and Delivery Plan

Professional services

Our operating principles

One organisation – strategy driven from the centre, schools focussed on teaching, learning and enterprise, with quality support from professional services

Customer focussed – adopting professional service models that clearly meet the needs of our customers

Accountable – clearly identified responsibility for performance and processes with authority delegated to the lowest level practicable

Efficient – streamlining and eliminating duplication across processes and functions

Effective – performance management embedded and driving improved delivery, data integrity assured

Figure 5: our organisation – based on historic values

258

Goal 7: People & Organisation	Creating an environment which attracts and fosters the very best staff, and within which all staff feel their achievements are equally and fairly valued and rewarded, feel proud of their university and take appropriate responsibility for its development
Goal 8: Resources & Infrastructure	Strategically investing in the creation of first class facilities and ensuring that they are underpinned by services which are responsive to academic needs and outcome focused

Where we'll be by 2020

- We'll be ranked and externally recognised as a good employer compared to other organisations
- We will grow our income by 25% to £170m annually, and deliver an operating surplus of 5% and an EBITDA margin (our ability to generate cash) of 15%
- Student satisfaction ratings with our facilities and environment will be in the top quartile of UK universities

Library and Learning Resources

Our LLR services continually evolve to keep pace with digital developments and meet the needs of students, researchers and enterprise activities. The full week/full year service has expert staff, extensive print collection and even more extensive electronic resources accessible on and offsite, and an equipment loan service including laptops, ipads and projectors. – with group training and support to find, use and reference resources, and IT skills training from basics to advanced specialist software.

Exceptional Student Experience project

The ESE project will involve the implementation of a number of technological solutions, alongside enhanced development of the virtual learning environment supported by innovations in teaching and learning. This will enable us to fully develop and exploit a blended approach to delivery and support. We are in the early stages of this journey, which will see the development of this technology, in collaboration with IBM.

The Student Life Centre

This one-stop-shop for students offers advice on all aspects and stages of the student journey: online, over the phone and in person. Services are arranged for the convenience of students, with long access hours and week-end opening and partners are brought in to deliver some specialist services. The success and popularity of the service is due to its insistence on putting the student first, striving for single visit closure, high-end customer service practice and a vibrant team spirit. .

Appendix 6: LSBU 2013/14 Business Plan

London South Bank
University

LSBU Vision: To be the most admired university in the UK for creating professional opportunity, and thus a source of pride for our students, our staff and the communities we serve.

Executive area: *Department of Adult Nursing and Midwifery*

2013/14 Business Plan

1. Strategic Objectives (to be delivered over 3 years)

- Recruitment of Adult Nursing and Midwifery students that are fit for purpose, role and practice upon graduation
- Ensure successful student completion of academic and practice elements of programmes.
- Strengthen collaborative partnership working with placement providers to optimise the practice learning experience for our students. Growth in NHS Contract from across 3 London LETB's and increase in IGA not sure what IGA isactivity (bands 1-4, pre-registration, CPPD and bespoke work).
- Annual portfolio review and revision in respect of CPPD business offer.
- Increase in International activity and income. Do we need to be more specific here in terms of international placements, staff and student exchanges, attracting overseas students?
- Students accessing international opportunities as part of elective (pre-registration programmes).
- Increase opportunities for Interdisciplinary Learning at pre and post registration levels in both the practice and theoretical settings.
- Increase involvement of service users in the planning, delivery and evaluation of the educational portfolio
- Innovative use of information technology to support educational activities.
- Research and a sound evidence base underpin Departmental activities.
- Efficient and effective use of resources.
- Administrative and University support structures and processes are aligned to support Department business and are customer focused.
- Leadership that not only ensures effective and economical management of the Department but inspires and supports staff.
- Make the Department of Adult Nursing and Midwifery a good place to work this is going to be difficult to measure should it be based on good feedback from staff survey?.
- Increase number and length of community placement experiences for pre-registration nursing students.
- Increase research capacity and capability within the department and increase pedagogical scholarship

2. Outcomes (change expected over 3 years)

- Recruitment to meet pre-registration health contract without the need to enter clearing.
- Values and attitudinal focus to recruitment for pre-registration health programmes.
- Agreements and quality audits in place for all adult nursing and midwifery practice placements.

- Improved performance metrics for all Professional courses in relation to LETB QA, Professional Regulatory Bodies and external agencies.
- Increased departmental IGA income by 10% overall.
- International activity increase by 10% each year.
- Increase in number of students undertaking international electives.
- Increased year 1 progression to > 65 % / reduced attrition < 15%. We need to review this in context of current and past data – realistically we should aim for a 5% reduction in attrition per annum
- Increase in Interdisciplinary learning opportunities by 10%. Is this 10% per annum over 3 years or total over 3 years
- Modules normally only delivered if viable (> 10 students UG, > 6 students PG)
- All modules include an element of blended learning (whenever appropriate).
- Moodle fully implemented and positively evaluated by students and staff.
- E learning educational CPPD opportunities increased suggest 10% per annum.
- IT developments and resources available to support academic staff and students activity
- REF- Overall rating for Faculty> 2.5 with input from members of dept of adult nursing and midwifery.
- Increased research IGA income.
- Increased activity achieved with a known and acceptable workload for Department staff. Is this implementation of a robust and valid workload allocation model to ensure effective use of resources and equitable workloads.
- Departmental courses achieve improved position in regional, competitor and national league tables.
- Develop and implement roles of E learning, service user and IPL champoions within the department

3. Deliverables in 2013/14

- Introduction MENDAS (attitudinal assessment tool) for pre-registration student recruitment cross Department.
- Development of VITAL (service user training) cross Department.
- Practice placement agreements signed for all Adult Nursing and Midwifery areas.
- 100% completion of practice placement audits for all adult nursing and midwifery placement areas
- Clarity around account manager links to all practice partners and improved sharing of customer information using LinkEx.
- NHS Pre registration Contract numbers maintained for South London LETB and increased by 10% in NENC LETB (for Sept 2014 intake).
- CPPD activity increasing (or increased percentage market share if overall London overall CPPD allocation decreases)
- Band 1-4 activity (bespoke and FD) increased.
- No modules run with < 6 students (PG) or < 10 students (UG).
- Plan for viable delivery of top-up adult nursing degrees in Malaysia.
- 3rd year nursing students undertaking international electives.
- Inter-professional delivery of leadership and skills based sessions.
- Participate in student and staff pilot of iPad project as and when approved by Executive.
- Contribution to REF return submitted on time.

- Staff workload known and agreed for all academic staff.
- Departmental administration structures effectively supporting Dept activity.
- Effective leadership of the department.
- All staff will have completed an annual appraisal.
- Staff development opportunities and achievements known and appear in PDP plans.
- Develop and implement internal roles of e learning, service user and IPL champions within the department.

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4. Risks (to achievement)

Risk (Description)	Likelihood (1-3)	Impact (1-4)	Total risk Priority	Controls & Actions (What are you doing/what do you need to do to control this risk?)
Student recruitment (under or over recruitment to targets)	2	3	6	Weekly recruitment reports updated. Strong marketing campaign. Move to single (Sept) intake for pre-reg programmes.
Usage of Havering Campus	2	2	4	Restructure of admin functions to make effective use of 'back office' functions at Havering. Discuss with UCL re potential joint campus development in NENC area.
Lack of practice learning opportunities (specifically non bed or community opportunities)	3	4	12	Strong links with partner agencies. Review of curricula and mapping against placement capacity and availability.
Unable to mainstream MENDAS tool	2	4	8	Project is service lead. Strong project plan with clear targets and timescales to roll out.
Technology not supporting planned developments.	4	4	16	Working closely with ICT to ensure effective technology.
Reduction to NHS commissions (pre-reg and CPPD)	4	4	16	Active liaison and participation in LETBs. Maintain 'preferred provider' status with partner organisations. Excellent customer service. High quality provision.
Lack of systems support for flexible learning.	3	3	9	Faculty is leading cross-University project to review student records system to ensure this is capable of supporting flexible learning.
Unsatisfactory quality outcomes (including NHS CPM)	3	3	9	Develop good internal systems for evidence collection and reporting. Strong partnerships. High quality.
Decrease in research active staff.	2	3	6	Encourage research activity. Encourage publication.
Poor REF performance	2	4	8	External review of proposed REF submission.
Loss of budgetary control.	1	4	4	Strong budget management culture in Faculty. Devolved budgets to HoDs. Monthly management reporting.
Target SSRs not achieved.	3	4	12	Ongoing review of staffing levels and workloads. Flexible posts (inc secondments and HPLs) to manage short term variations.
Lack of expertise to develop effective distance learning is this e learning rather than distance?	1	3	3	Ongoing training and development for staff.
Fail to effectively compete in International market.	2	3	6	Raise league table position. Value for money. Reputation for delivery.
Failure to reduce	2	4	6	Robust recruitment and selection processes.

attrition when above 15%				Development, validation and implementation of an attrition risk score, Optimise support of 1st year student in clinical practice