An exploratory mixed-methods study of student incivility in higher education classrooms

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2016

Thesis submitted in accordance with the requirements of Edge Hill University for the degree of Doctor of Philosophy
Abstract

**Background** Within the United Kingdom media reports suggest that students and teachers are experiencing high levels of disruptive behaviours or ‘incivilities’ (a term used in the literature from the USA) within higher education classrooms. There is however no published empirical UK based research that identifies the extent or severity of these claims. Furthermore, literature from the USA indicates that staff may be equally as responsible as students in instigating classroom incivility.

**Aims** The aim of this research was to explore the problematic issue of students’ uncivil behaviour in higher education classrooms within a UK context. Specifically the prevalence, types and context of incivility were identified and the role that teachers play in instigating incivility was explored.

**Method** This exploratory study utilised a concurrent mixed-methods, multi-case study design. Quantitative and qualitative data were collected simultaneously within the same time frame utilising the Questionnaire on Teacher Interaction in Higher Education (QTIHE) and semi-structured classroom observations.

**Results** Student incivility was prevalent to varying degrees in each of the cases included in this UK based study. Furthermore, a statistically significant negative correlation between the frequency of classroom incivility and student ratings of positive personal attributes and student-focused teaching is reported.

**Conclusions** This exploratory research has utilised a mixed-methods approach to investigate an issue that has raised concerns from students and teachers in UK higher education; that of classroom incivility. Results of the study are pertinent to higher education practitioners and provide recommendations for future practice and research.
Acknowledgements

Foremost, I would like to express my sincere gratitude to my director of studies Professor Dave Putwain for his continuous support throughout the duration of my doctoral study and for his guidance, motivation, enthusiasm and attention to detail. I could not have imagined having a better advisor and mentor. My genuine thanks also go to Dr Tony Liversidge for his encouragement and reassurance. It would be an injustice not to acknowledge my husband Tony for just being there and listening. To my daughter Ellen I hope that I am proof that it is never too late. Finally, I would like to dedicate this work to my father who valued and invested in his five daughters’ education. Sadly, he did not live to see the rewards but I know how proud he would have been.
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<td>British Educational Research Association</td>
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<td>BPS</td>
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<td>CFI</td>
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Conference Proceedings Resulting from this Thesis


Chapter 1 Introduction

1.0 Chapter outline

This introductory chapter provides a concise overview of the complete study from inception to conclusion and provides the reader with signposts for the full thesis and its component parts.

1.1 Background

This study was initiated following anecdotal concerns of students’ uncivil classroom behaviour that became apparent on commencement of a post as Senior Lecturer within a Higher Education Institution in the North West of England. These concerns were personally observed but were also voiced by lecturing colleagues, classroom learning support staff and by students themselves. These behaviours ranged from those that were perceived to be persistently irritating such as talking during lectures and inappropriate use of mobile technology (for example using social media), to those behaviours which lecturers and students found intimidating or threatening (for example verbally aggressive altercations).

This study was conducted within the higher education institution where the researcher is employed as a lecturer. Costley, Elliot and Gibbs (2010) highlight that conducting a study within the researcher’s own organisation and community of practice means that colleagues are more likely to have a vested interest in the process and outcomes and therefore co-operative in issues of access and data collection. This matter was crucial in this study when requesting and gaining access to classrooms and students within the organisation where the research was conducted and is further discussed in Section 7.4. In addition, when submitting a request for ethical approval emphasising the benefits of the research for a specific community of practice, in this case higher education teaching and learning, was essential in relation to addressing the ethical principle of beneficence. In this study the findings can be utilised to enable teachers to begin to address the perceived problematic issue of classroom incivility and in addition to reflect on their teaching practice through the adoption of the proposed Ecological Model of Student Classroom Incivility in Higher Education (EMSCIHE). The issue of emphasising the
potential benefits of a research study when considering ethical applications is addressed in section 4.2 and the EMSCIHE is presented in section 11.2.

Lecturers and students within the organisation had previously articulated the perceived negative impact that uncivil behaviours had on their teaching and learning. As one student stated “I am a mature student who has given up a lot to do this course. Disruptive classroom behaviour has a serious effect on my learning and has at times made me question if I can continue on my course”. (Rivas [now Keating], 2009). These concerns regarding the impact of students’ classroom incivility on teaching and learning are reflected internationally within the existing published literature (see Section 2.6).

A personal concern, and one shared by colleagues, was the fact that the majority of the students on programmes within the Faculty in which I am situated are studying for a professional award. This led to further unease that students who were entering a ‘professional’ arena were exhibiting behaviours that were deemed by lecturers and peers to be uncivil. This issue is further discussed when consideration is given to the concept of incivility in Section 2.2 and was influential when considering the participant inclusion criteria within the case study design of this research (see Section 3.2). Such were the extent of anecdotal worries expressed by academic colleagues, students and support staff regarding classroom incivility that it was deemed an appropriate area for further enquiry.

In the United Kingdom there has been a recent increase in media attention to the deterioration of classroom behaviour in compulsory secondary education (Department for Education and Skills, 2005; Office for Standards in Education, 2005; Association of Teachers and Lecturers, 2009). This is reflected in an increase in statutory advice for schools on how to address this problem (Department for Education, 2013; Department for Education, 2014). The types of classroom misbehaviour regularly cited in the literature range in nature from, most commonly, low-level misbehaviour such as talking and use of mobile phones through to much rarer assaults on pupils and staff. Much of the literature suggests that it is ‘low-level’ frequent disruption that is the most prevalent form of pupil misbehaviour (Association of Teachers and Lecturers, 2010; Association of
Teachers and Lecturers, 2011). These behaviours are comparable in nature to those identified as uncivil behaviours in the published literature on incivility in higher education classrooms and raises issues of the possibility that these behaviours exhibited within compulsory secondary education settings are transferred to the higher education context.

Similarly, media reports suggest that students and teachers in the United Kingdom (UK) are experiencing high levels of disruptive behaviours within higher education (HE) classrooms (Tahir, 2007) and also through online abuse (Tahir, 2008). A national focus on student conduct in general throughout the higher education sector was emphasised by the launch of the National Student Conduct Survey (Lee, 2007). This report focused on higher education lecturers' reports of unreasonable demands for support, allegations that students felt that they were unfair, verbal or physical abuse, sexual propositions, stalking, bullying, harassment or being made to feel uncomfortable by students in various situations. This targeting of lecturers has been further exacerbated by the inception of websites where students rank and make comments about their lecturers, such as http://www.ratemyprofessors.com and the recently founded UK-based website http://rateyourlecturer.co.uk. Furthermore, as the consumer culture of higher education intensifies, there are reports from human resource departments within universities that parents are becoming increasingly aggressive towards university staff and are demanding that they be given information on student progress (Shepherd & Baty, 2006). In addition, a greater number of students are challenging marks awarded to them by academics often using legal representation (Grove, 2014).

Recent research has also highlighted the disruptive nature of ‘laddish’ behaviour in higher education classrooms within the UK (Jackson, Dempster & Pollard, 2014). However, there is no other published empirical work specifically related to disruptive classroom behaviour in British higher education; this is surprising, given the apparent magnitude of anecdotal opinion that behavioural standards are deteriorating. Within the United States of America (USA) the literature has identified an increase in the number of disruptive behaviours or ‘incivilities’ (a term used in the literature from the USA) that take place by students in higher education undergraduate programmes (Al-Kandari, 2011; Amada, 1999; Ausbrooks, Jones &
Tijerina, 2011; Black, Wygonick & Frey, 2011; Boice, 1996; Carbone, 1999; Clark, 2008d; Clark, 2009, Clark & Springer, 2007; Del Prato, 2013; Feldmann 2001; Gallo, 2012; Lashley & De Meneses, 2001; Meyers, 2003; Richardson, 1999; Seidman, 2005). Moreover, studies have given attention to the contribution that lecturers in higher education themselves may be making to incivility within the academic environment (Clark, 2008b; Clark & Springer, 2007; Gallo, 2012; Hanson, 2001; Luparell, 2004) with strong evidence that links teacher immediacy and the rate of student classroom incivility (Boice, 1996; Golish, & Olson, 2000). Immediacy refers to communication behaviours that reduce the psychological and physical distance between people (Golish & Olson, 2000). This area of research is however still in its infancy.

The research problem therefore is that anecdotally there are insinuations that teachers in higher education in the UK are experiencing classroom incivility; however there is no published research that identifies the extent or severity of these claims. Furthermore, literature from the USA indicates that staff may be equally as responsible as students in instigating classroom incivility and this is an area that requires further study. This research therefore is unique in addressing the need to investigate the prevalence and types of student incivility that are encountered in higher education classrooms in the UK. Furthermore, this study focused on exploring one aspect of the relationship that exists between students’ perceptions of teachers and the incidence of classroom incivility: that of student-teacher interactions. As Ferris (2002) states ‘classrooms and campuses are settings where observations of civility/incivility and student-teacher interactions may constructively be examined for insights’ (p. 378).

This study took place in one institution of higher education within the Northwest of England. My position within the university is that of Senior Lecturer across a range of nursing and healthcare undergraduate programmes. It is therefore anticipated that my personal experiences of students’ classroom incivility will have influenced the research process throughout the study and how this experience has influenced the research process will be discussed in Sections 3.1 and 3.2. In addition, my position of insider–researcher or ‘complete member role ’ (Coghlan & Brannick, 2014), will be examined throughout. The insider–researcher is employed within the
organisation in which the study is conducted. Such researchers have the opportunity to acquire ‘understanding in use’ rather than ‘reconstructed understanding’ and to turn familiar situations into objects of study (Coghlan & Brannick, 2014). There are however ethical considerations in conducting research within the researcher’s place of employment and these are addressed in Sections 3.3.3, 4.4, 7.2, 7.3, 7.4 and 8.3.

My appointment as Senior Lecturer followed a period of 20 years of professional nursing and midwifery experience. The majority of my own extensive phase of learning, particularly that as a professional student, entailed a behaviouristic approach to teaching and learning. This is congruent with the disciplinary epistemology of nursing as a profession as discussed in Section 3.1. Behaviourism and constructivism are learning theories that stem from two philosophical schools of thought, which have influenced educators’ views of learning. The major proponents of behaviourism studied how learning is affected by changes in the environment and sought to prove that behaviour could be predicted and controlled (Skinner & Watson, 1974). Behaviourists do not focus on that which might occur in people’s minds; they are interested in behavioural responses. As a result, these responses are often measured in relation to test stimuli. Much of my learning and teaching experience within the profession of nursing therefore was based on learning by rote and formal examination processes measuring acquisition of knowledge.

However, within my current role as a Senior Lecturer at a higher education institution I have adopted a constructivistic approach to teaching and learning. Constructivists believe that knowledge is developed through students’ active participation in their learning. Therefore, the primary role of the teacher should be to facilitate students to create their own knowledge through their personal experiences (Rummel, 2008). Learning activities in constructivist settings are characterised by active engagement, inquiry, problem solving, and collaboration with others. Rather than a dispenser of knowledge, the teacher is a guide, facilitator, and co-explorer who encourage learners to question, challenge, and formulate their own ideas, opinions, and conclusions. I have incorporated this constructivist approach to teaching by the use of problem-based learning within the
curriculum, the use of journal clubs, promoting M-learning and giving students a choice of assessment.

In addition, when considering incivility I am mindful that my personal attitudes, beliefs and experiences will without doubt influence methodological choices within this study, specifically my own experiences as an undergraduate student, my current role as a teacher within a higher education context and my professional nursing status. This is further discussed in Section 1.4.2. Moreover, when considering classroom incivility it is my view that students need organisation, rules and guidance within classroom and yet require freedom to discuss, debate and use technology to support their learning. The emphasis on the positive effects of maintaining an environment that is orderly, clear in expectations, maintains control and yet is responsive to change is reinforced within the systems maintenance and systems change dimensions of the learning environment theoretical framework which is central to this study (see Section 5.1).

A positivistic approach argues that subjectivity has no place in the research endeavour of revealing scientific knowledge and if partiality enters the research enterprise, then the value of the study is in danger of being discredited (Mantzoukas, 2005). However, within non-positivistic paradigms bias is understood as inseparable from the individual researcher, such that the phenomena are always filtered through the personal understandings of the individual conducting the study (Kaptchuk, 2003). As Wolcott (1995) states, subjectivity should not be denied or suppressed but recognised and harnessed. The researcher's purposes regarding their study and any assumptions related to data need to be made explicit and used judiciously to give meaning and focus to the study. Therefore, it is considered appropriate for the researcher to reflectively examine their presuppositions and individual assumptions and in many ways this notion of the researcher reflecting on their own experiences and beliefs has become a central and integrated component of research studies that transcends paradigmatic polarisations (Freshwater, 2005). Thus, what many argue is that all research cannot be separated from the ideology and subjectivity of the research (Freshwater, 2005). Mantzoukas (2005) advocates that reflection in research is only meaningful if the researcher utilises the virtues of previous experience and knowledge to design, execute and present the research
findings, thus transforming a reflective study into a reflexive one. Therefore, throughout this thesis I endeavour to indicate how preconceptions and presuppositions influence the choices made, for example choice of research question, methodology, data collection and analysis within sections 1.1, 1.4.2, 3.1, 3.2, 8.4.2.

1.2 Research aims and questions
The aim of this research was to explore the perceived problematic issue of students’ uncivil behaviour in higher education classrooms within a UK context. The prevalence, types and context of incivility will be defined. In addition the role that teachers play in instigating incivility will be explored by correlating students’ perceptions of student-teacher interactions and the frequency of classroom incivilities.

The title of this thesis is ‘An exploratory mixed-methods study of student classroom incivility in higher education.’ The specific research questions that were addressed are as follows:

Research Question 1. What is the prevalence of student incivility in higher education classrooms?
Research Question 2. What types of student incivility occur in higher education classrooms?
Research Question 3. What is the relationship between students’ perceptions of student-teacher interaction and classroom incivility in higher education?

1.3 Mixed-methods purpose statement
This exploratory mixed-methods study addressed the prevalence of student incivility in higher education classrooms and the relationship between student-teacher interactions and classroom incivility in higher education within a UK context. A concurrent mixed-methods design was used and therefore quantitative and qualitative data were collected simultaneously within the same time frame, analysed and then merged. In this study quantitative data from the Questionnaire on Teacher Interaction in Higher Education (QTIHE) defined students’ perceptions of their teachers’ interactions. Further quantitative data from classroom observations was used to describe the prevalence of classroom incivility and
qualitative data from classroom observations was utilised to identify contextual aspects of students’ classroom incivilities. The reason for collecting both quantitative and qualitative data was to converge the two types of data in order to bring greater insight to the problem by the addition of contextual knowledge to descriptive evidence.

1.4 Theoretical, conceptual and ethical frameworks

1.4.1 Theoretical framework: The learning environment

Measurement of student-teacher interactions in this study was based on the theoretical framework of learning environments. Foundations for learning environments research began when Moos (1979) theorised that three general categories could be used in characterising diverse learning environments. The three dimensions are relationships, which identify the nature and intensity of personal relationships; personal development, which assesses personal growth and self-enhancement, and systems maintenance, which involve the extent to which the environment is orderly and control is maintained. The concept of classroom learning environment implies the intent to establish and maintain a positive context that facilitates classroom learning, but in practice, classroom climates can vary depending on many factors. Moreover, different observers may have different perceptions of the climate in a given classroom. Therefore, for purposes of his early research, Moos (1979) measured classroom environment in terms of the shared perceptions of those in the classroom.

Prevailing approaches to measuring classroom learning environments utilise student perceptions, external observer’s ratings and systematic coding, or naturalistic inquiry, ethnography, case study, and interpretative assessment techniques (Coll, Taylor, & Fister, 2002). Moos’ (1979) work however has influenced the development and use of instruments to assess the quality of classroom learning environments from the perspective of the student. These scales include My Class Inventory (MCI) (Anderson, Walberg & Fraser, 1981), utilised at primary level, Learning Environment Inventory (LEI) (Walberg & Anderson, 1968), and Classroom Environment Scale (CES) (Moos & Trickett, 1974), at secondary level and College and University Classroom Environment Inventory (CUCEI) (Fraser, Treagust, & Dennis, 1986), at post-secondary level.
The Questionnaire on Teacher Interaction (QTI) (Wubbels, & Levy, 1993) was developed within Moos’ theoretical framework to assess students’ perceptions of a teacher’s behaviour, specifically student-teacher interactions in the classroom. They also developed a form of the QTI that measures perceptions of preferred or ideal student-teacher interactions. As the measurement of student-teacher interactions is a fundamental aspect of this study, use of the QTI was deemed appropriate. The QTI has been used internationally to measure students’ perceptions of student-teacher interaction within a compulsory, secondary education setting. However, only four studies have been identified that have utilised the QTI within a higher education context (Coll & Fisher, 2000; Coll et al., 2002; Coll, Taylor & Sadaquat, 2001; Fraser, Aldridge & Soerjaningsih, 2010) and no studies were located that have employed the use of the QTI in either a secondary or higher education context within the UK. Moreover, the QTI has not been utilised to address issues of classroom incivility within an educational context. In this study, the QTI was psychometrically evaluated, modified and renamed prior to being used to collect quantitative data regarding students’ perceptions of interactions with their teacher in this study.

1.4.2 Conceptual framework: Civility and incivility

The concept of incivility was used throughout this research to encompass classroom behaviours that are considered by teachers and students to be inappropriate and disruptive to teaching and learning. As this concept is central to the study, clarification and critique of the concept is required. Before considering incivility, one must first determine, even if provisionally, what civility means and then to interpret incivility within the context of this study.

1.4.2.1 Definitions of civility and incivility

The terms citizenship, civility and civilization are derived from the Latin civis (citizen) and civitas (city). Civility can therefore be viewed as an urban concept, a public virtue, one that refers to how people should behave in the close proximity to other, such as strangers, neighbours and colleagues (Buonfino & Mulgan, 2009). Although authors attempt to define and describe civility, there is no consistent definition on offer (Buonfino & Mulgan 2009; Clark & Carnosso, 2008). Contemporary authors consider civility to be an admirable attribute (Forni, 2002;
Peck 2002; Scales 2010) and various definitions describe civility within different contexts. These will be discussed in the following sections.

According to Scales (2010) civility is a collection of respectful and courteous behaviours, which people exhibit to strangers in public arenas. Ferris (2002) further proposes a working definition of civility as consideration of others in interpersonal relationships, whilst Peck (2002) advocates that civility within organisations encompasses behaviour that is courtly, such as politeness and good manners. On a personal level, civility is referred to as an attitude of respect for fellow citizens, manners and moral conduct (Carter 1998), a desire to do what is right by others (Casson 2012), putting others before self (Cameron 2007) and a matter of personal disposition that has to be cultivated (Buonfino & Mulgan 2009). Sistare (2004) suggests that civility requires tolerance, listening and discussion of different viewpoints without personal attacks. Similarly, Guinness (2008) distinguishes civility as respect for differences and treating one another with dignity whilst Buonfino and Mulgan (2009, p.17) define civility as a ‘learned grammar of sociability’ that demonstrates respect and entails sacrificing immediate self-interest when appropriate.

1.4.2.2 Historical context of civility and incivility
Although, as with any word, the meanings of “civility” have changed, the concept still carries traces of its earlier use. A history of civility is offered by Norbert Elias’s (1939) in The Civilizing Process. In this account of the development of manners in Western Europe, civility is the standard that defines the identity of a group against a reviled and subordinate “other.” Elias explains that:

“civilisé was one of the many terms by which the courtly people wished to designate the specific quality of their own behaviour, and by which they contrasted the refinement of their own social manners, their ‘standard,’ to the manners of simpler and socially inferior people.” (p. 49)

Civilisé metamorphosed into “civilization” as Western states strengthened and expanded their colonial reach, defining their mission as the dissemination of values to simpler and more primitive people. The latter were routinely referred to as
“barbarians” and “savages,” terms applied to domestic lower classes as well as to colonial subjects. Elias writes that the strict code of manners for the upper class was an instrument of prestige, but also ‘an instrument of power’ (Elias 1939/2000 p.129).

Although, as outlined above, the contexts and specific applications have varied over time, the notion of civility consistently establishes relations of power whenever it is invoked. It is always the powerful who determine its meaning, one that whatever it’s specific content, demeans and delegitimises those who do not meet its test (Elias 1939/2000). Scholars have documented these power differentials and how perceptions of civility were used to define them. Buonfino & Mulgan (2009) suggest that incivility is often generated and encouraged by major inequalities of power between social classes, powerful and powerless whilst Carter (1998) states that incivility is used by those in power in order to preserve power.

Arendt (1948) wrote in *The Human Condition* that society imposed expectations of behaviour on each of its members in the form of innumerable and various rules at the detriment of excluding spontaneous action. Elias (1939/2000) was also conscious of the cost of greater levels of civility that resulted in societies becoming more rigid, repressive and controlling of impulsive emotions. It could be viewed therefore that the imposition of civility and the subsequent suppression of incivility embody unacceptable inequalities of power that have a negative consequences for certain members of society. Thus, incivility may not always regarded with negative connotations as for some it is seen as allowing individual freedom and the free expression of passionate impulses such as anger, fear and shame (Elias, 1939/2000). DeMott (1996) also asserts that incivility should not always be construed as a negative form of dissent as incivility in some forms is used to send a message to those in authority in an attempt to address the power of imbalance within society.

However, it is the detrimental impact of students’ classroom incivility that is mainly focused on in this thesis and centered on in the published literature (see Sections 2.6.1.and 2.6.2). Nonetheless, as stated previously incivility should not always be viewed as a negative entity. For example DeMott’s (1996) proclamation that
incivility is an attempt to address the power of imbalance within society may be
reinforced when considering the literature on incivility within higher education. This
is discussed in relation to the causes of student incivility in Section 2.5.2, which
identifies the impact of student consumerism on higher education. The statement
“knowledge comes in packages and teachers are the retailers” (Wibbenmeyer-Beck, 2009, p.31) highlights the potential reconfiguration of the structure and
balance of power in higher education. Student incivility therefore may be seen as
students redressing this balance of power and challenging hierarchical educational
systems. Furthermore, discussion of the findings of this study suggests that
perceptions of uncivil behaviour may have alternative meaning. For example in
Section 10.2.1.5, when considering the category of signalling (such as students
giving out overt, blatant signs of disengagement with the class ‘student heard to
sigh loudly’) it could be hypothesised that some student classroom behaviours that
are consistently perceived within the literature as uncivil are in fact students’ overt
signs of boredom. These perceived uncivil behaviours could therefore be utilised
constructively by lecturers as an indication to reflect on their teaching practice.

1.4.2.3 Incivility in differing contexts
Fraser (1990) writes that whilst civility becomes a synonym for orthodoxy; “incivility”
designates non-conformist ideas or behaviour. Whilst being civil is to be polite,
respectful and decent (Forni, 2002), incivility is defined as ‘speech or action that is
discourteous, rude or impolite’ (Clark, 2008d; p4). Hernandez and Fister (2001)
define uncivil behaviours as being intentionally rebellious, defiant, disrespectful or
antagonistic in nature.

Buonfino and Mulgan (2009) identify three sources of incivility: individual
disposition; the direct influence of peers, family and friends and the larger structure
such as laws and regulations that promote or constrain behaviours. They assert
that civility is a set of norms that are first learned in childhood, through family and
education, and reinforced (or undermined) in adult life, at work, in the media and in
the many interactions that make up society.

Ferris (2002) emphasises that data on incivility demonstrate that incidents take
place across a multitude of contexts that include public arenas, homes, workplaces
and classrooms suggesting that civility and incivility be examined ecologically. When considering incivility, Twale and De Luca (2008) stress the importance of factoring in the cultural setting. When describing incivility in the workplace uncivil behaviours are characterised as rude and discourteous, displaying a lack of regard for colleagues (Anderson & Pearson, 1999) and as causing an atmosphere of disrespect, conflict and stress (Clark, 2008a). Feldmann (2001) introduces the term academic incivility into the literature as rude, discourteous behaviour that disrupts the learning environment. Within the context of higher education Clark (2008a) proceeds to note that incivility “may be demonstrated by students or faculty and … violates norms of mutual respect in the teaching-learning environment” (p.38). Morrissette (2001) implies that student incivility is intentional behaviour that proceeds to disrupt and impede the teaching and learning processes of others.

With specific relevance to this study, Feldmann (2001, p.137) defines incivility within the higher education classroom as “any action that interferes with a harmonious and cooperative learning atmosphere in the classroom”. In addition, Burke, Karl, Peluchette and Randy-Evans (2014) defined student incivility as “discourteous or disruptive verbal and nonverbal student behaviours enacted toward others” (p.161). Furthermore Nilson and Jackson (2004) extend this definition to incorporate unacceptable student behaviour that may occur both inside and outside of the class.

Civility may presume a certain benign self-evidence for users of the term, as (Carter, 1998, p.15) advocates, “niceness is easily understood by all parties, we know civility when we see it”. Yet Clark (2008b) suggests that a lack of universal definition of civility and incivility is due to the interpretation of individual perceptions with each person making meaning of an encounter based on his or her own attitudes, beliefs and life experiences. This suggests interpretive differences among individuals and groups as one person’s presumed civility may strike another as uncivil. Twale and De Luca (2008) reinforces this view and advise that we can determine just how uncivil an action is by considering our tolerance level for each particular behavior and how it relates to us. Griffiths, Norman, O’Sullivan and Ali (2011), when reporting on civility in 21st century Britain, recognize that measuring civility is not straightforward and acknowledge the challenges of defining measures
that can be used objectively and comparatively due to the intrinsic complexities in terms of what constitutes uncivil behavior. These difficulties in reaching a consensus on behaviors that denote classroom incivility are confirmed by Braxton and Bayer (1999) who in their study experienced differences in lecturers’ perceptions across age, gender, experience and status; what one lecturer saw as unacceptable, another dismissed as tolerable.

1.4.2.4 Personal perceptions of incivility
As previously stated (Section 1.1) when considering incivility my personal attitudes, beliefs and experiences will without doubt influence methodological choices within this study and my views of uncivil behaviour. Costley et al. (2010, p.33) emphasise the importance of recognizing close personal familiarity with the context of research and how the study is influenced by the researcher’s ‘situatedness’ within specific contexts. Firstly, as stated above I believe that my interpretation of that which constitutes incivility, specifically within a higher education classroom context is guided by previous encounters as an undergraduate student and current experiences as a lecturer within a higher education context. For example, as a former mature student with caring responsibilities I can empathise with students who arrive late at class or leave early for similar reasons. Therefore although there is a consensus within the published literature that arriving late for class is perceived by both students and teachers to be uncivil and hence is included as one of the behaviours that is recorded during classroom observation, my personal view is that not all lateness is inevitably uncivil.

In addition my professional nursing background will have impact on my views of incivility. Students on professional programmes within the faculty where I am currently employed will be guided by professional codes of conduct. This means that students will have rules of conduct that they have to adhere to in order to gain professional registration. The Nursing Midwifery Council (2015, Clause 1.1) states that ‘You must treat people with kindness, respect and compassion’ and the Health and Care Professionals Council (2012, Clause 3) maintains that ‘you should be polite with service users, your colleagues and the programme team’. Therefore I have a professional and personal expectation in relation to that which constitutes
civil behavior that students adhere to these codes both within both a clinical and educational environment.

As discussed above the concept of civility regularly establishes power relations whenever it is invoked. This raises issues when considering the insider-researcher position that is being a researcher and lecturer employed within the organisation in which the study is conducted. My views of classroom incivility are influenced by institutional student codes of conduct and personal experiences of setting rules of behavioural conduct within classrooms. This is a position recognised by Twale and De Luca (2008) who stress that the manner in which incivility is accepted or tolerated is dictated by one’s occupational role or position within the institutional hierarchy. Within higher education, behaviours that constitute classroom incivility are guided by both institutional codes of student conduct and personal rules of classroom behaviour, with lecturers being in a position of power in relation to implementing rules and sanctions.

To minimise the effect of personal bias within the study, specifically when making choices related to data collection and subsequent analysis, I have drawn on those student behaviours that have been consistently cited in the internationally published literature as being perceived uncivil by both students and lecturers (Section 2.4.1). This means adopting in the main a consensus approach to identifying uncivil behaviours even though some of these would not have personally been viewed as uncivil. However, it has to be acknowledged that when collecting data that some additional uncivil behaviours that had not previously been identified in published literature were included and that these were subject to context and personal interpretation of classroom incivility. Throughout the course of observation the prevalence of these behaviours were very low and included ‘2 students put their heads on the shoulders of the student in the middle and close their eyes’, ‘one student is using the mirrored screen on her phone to apply make up’ and ‘a student is throwing paper missiles at the students positioned in the row in front’.

A concern related to the insider-researcher position and power relationships within this study involves the matter of gaining consent from students to collect data regarding their perceptions of their interactions with their teachers utilizing the
There is likely to be apprehension regarding the teacher being in a potential position of exerting influence over student participation and therefore this issue is discussed in detail in Section 4.4.

My views of incivility are therefore as follows. Incivility is a matter of personal perception that is constructed based on individual values and experiences. Nonetheless within the published literature there is a consensus of opinion on those classroom behaviours that are perceived as uncivil by students and teachers. My opinion that incivility is a matter of personal perception is supported by evidence. For example in a survey by Clark and Springer (2007) a majority of students (95%) reported that they perceived students sleeping in class to be uncivil and therefore some students (5%) did not. Therefore whilst most students viewed this behaviour as being uncivil some did not. Furthermore, there are differences in perceptions of classroom incivility between participants in similar contexts. This is apparent within the literature where students and teachers within higher education classrooms differed on that which they perceive to be uncivil. In a study by McKinne and Martin (2010) a higher percentage of students than teachers considered acting bored in class as being uncivil.

There is however within the published literature a consensus of opinion on those classroom behaviours that are deemed as uncivil. These are behaviours that are consistently cited across internationally published research and these were used to inform the classroom observations within this study. Some examples are students arriving late, inappropriate use of mobile phones in classrooms, sleeping and students being unprepared for class.

In addition, I believe that although classroom incivilities can have a detrimental effect on the processes of teaching and learning (see Section 2.6.1 and 2.6.2) that incivilities could also be used to positive affect. For example, within this study students were observed yawning loudly and sleeping in class. Within the published literature on classroom incivility this was consistently cited as being perceived as uncivil behaviour by both students and teachers in higher education (Section 2.4.1). However it is suggested later in this thesis that these behaviours might be attributed to students’ attempts at ‘signalling’ high levels of boredom (see Section
10.2.1.5). It could be argued therefore that in this case that the identification of classroom incivility might be utilised to prompt reflection on the teaching-learning processes within higher education classrooms (see Section 11.4).

My personal experiences endorse the above statement that incivility is clearly a matter of perception that is constructed based on individual values and experiences. Within my own community of practice I am aware that opinions differ between teachers in relation to that which they deem to be uncivil student behaviour. Additionally, different teachers report varying experiences of levels of incivility within the same cohort of students. I have also experienced and been made aware anecdotally of colleagues and students experiencing incivility with repeated frequency of certain behaviours such as those previously cited. Personally, I have experienced what I perceive to be student incivility within higher education classrooms and this has differed across different groups of students and diverse teaching formats from small group seminars to large lectures.

1.4.2.5 Perceptions of incivility (epistemological position) and methodological choices within this study

Methodological choices within this study are based on a combination of evidence from published literature on student incivility in higher education and personal experiences. When constructing the methodology a decision was made to measure students’ perceptions of their teacher utilizing the QTIHE and to correlate these with the frequency of incivility observed within classes. The rationale for this choice is supported by published literature and further discussed in Section 3.1.5. Classroom observations in this research are semi-structured in nature. This enabled the frequency of students’ classroom incivility to be recorded and also for patterns to be observed that begin to contextualise uncivil behaviour. The frequency of incivility was based on a compilation of students’ uncivil classroom behaviours extracted from published literature, thus supporting a consensus of opinion. However in addition uncivil behaviours were observed that had not previously been identified were recorded. These were identified based on my personal epistemological position in relation to classroom incivility as previously discussed.
1.4.3 Ethical framework: Covert observation

This study utilises covert observation to collect data on the prevalence and types of incivility in higher education classrooms. Three ethical principles can be applied to the use of covert observation in research namely: deontology, consequentialism and virtue.

Deontological, duty-based, ethics are concerned with actions rather than consequences and researchers have a duty to do the right thing regardless of the outcome (Johnson, 2003; Oliver, 2011). Deontology is an approach to ethics that focuses on the rightness or wrongness of actions themselves, as opposed to the rightness or wrongness of the consequences of those actions (Isreal & Hay, 2006; Lauder, 2003). In this ‘duty ethics of principles’ model, research is driven by universal principles such as honesty, justice and respect (Miller, 2012; Mulhall, 2003; Orb, Eisenhaur & Wynaden, 2001). Actions are therefore governed by principles that should not be broken and should be judged by their intent rather than consequences. In research, this theory requires that individuals be treated as an end in themselves and never as a means to an end and therefore participant consent, privacy and anonymity are particularly pertinent within this ethical model. Professional rules and ethical codes must also be adhered to and govern methodological actions.

Consequentialism, is “the doctrine that the morally correct course of action consists of the greatest good for the greatest number. That is, in maximizing the total benefit resulting without regard to the distribution of the benefits and burdens” (Oliver, 2011, p.51). This ‘utilitarian ethics of consequences’ model prioritizes the ‘goodness’ outcomes of research such as increased knowledge (Johnson, 2003). Thus the rightness or wrongness of actions are judged by their consequences rather than their intent (Miller, 2012; Orb et al., 2002). Within the context of research, the benefits of any study and its application to the wider population are taken into consideration within this ethical approach.

In contrast to the two universalist models above, a ‘virtue ethics of skills’ model questions the possibility of laying down abstract principles and stresses the moral character of ethical decision makers rather than the consequences of those actions or the duties that led to those actions (Isreal & Hay, 2006; Miller, 2012). Virtue
ethics emphasises a contextual or situational ethical position where the researchers’ skills in reflexively negotiating ethical dilemmas are utilised (Isreal & Hay, 2006). Ethical behaviour is seen less as the application of general principles and rules and more as the researcher internalizing moral values (Oliver, 2011, Miller, 2012). In this sense, consequentialist and deontological approaches to ethics might be regarded as act-centred whereas virtue ethics is an agent-centred stance. In practice, the researcher would be expected to act ‘virtuously’ at all times; that is with conscience and compassion (Beauchamp & Childress, 2001).

Ethical theories are pertinent to any research however the contentious issue of covert observation utilised in this study places greater emphasis on their application. A complete chapter (Chapter 4) is therefore dedicated to the discussion of ethical issues in this thesis, however ethical consideration is interwoven throughout at relevant points.

1.5 Organisation of the thesis
This thesis comprises eleven chapters.

Chapter 1 presents the reader with a background and introduction to the study. The overall aims, purpose and specific research questions are then stated. A mixed-methods purpose statement is presented which conveys the overall purpose of the research, the intent, overall design and reason for collecting both quantitative and qualitative data. This statement is seen as crucially important in mixed-methods studies in which many elements of quantitative and qualitative research need to come together (Creswell & Plano Clark, 2011). The theoretical framework of learning environments and the conceptual frameworks of civility and incivility are discussed, as these are central to this study.

Chapter 2 firstly outlines the strategy that was utilised in searching the literature. As the concept of incivility is fundamental to this study, the literature review in this section is structured to offer definitions and ascertain models, types, causes and effects of incivility on higher education classrooms and to consider how the issue is addressed. Finally, this chapter will identify why this research is unique and necessary within this subject area.
Chapter 3 examines the use of a mixed-methods approach to research enquiry. In this chapter a rationale for the use of mixed-methods is specified and the mixed-methods design of the study is identified. As a multi-case study design is incorporated into this research, a justification for this choice is also presented. The procedure for data collection utilising the QTIHE and semi-structured classroom observations is discussed. However more detailed and comprehensive accounts of the data collection methods are provided in subsequent chapters. Ultimately this chapter outlines the process of data analysis within a mixed-methods framework and a model to integrate mixed-methods with a multi-case study design is offered. The complex process of data analysis related to this research is given greater attention in an ensuing chapter (Chapter 9).


Chapter 5 and Chapter 6 focus on the psychometric evaluation and subsequent modification of the QTI. This instrument was utilised in this study to collect data relating to students’ perceptions of interactions with their teachers. Although this measure has previously been used in published research studies, the change of context requires evaluation of its validity and reliability (Field, 2013; Walsh, Rassafiani, Mathews, Farrell & Butler, 2012). The procedures of confirmatory factor analysis (CFA), exploratory factor analysis (EFA) and tests of reliability are outlined and results are presented at each stage of the evaluation process. The chapters culminate in presenting a modified version of the QTI which was renamed the Questionnaire on Teacher Interaction in Higher Education (QTIHE). This amended
measure is utilised for the remainder of the study and thus referred to under its modified title.

Chapter 7 centres on the process of semi-structured observation for collecting quantitative and qualitative data. A rationale is given for electing to use this approach and its uniqueness as a methodology is emphasised. The challenges that were encountered related to gaining access to classrooms are contemplated and the role of the observer is deliberated with an emphasis on level of participation and bias awareness. Data recording procedures are explained and finally, the issue of quality validation of both quantitative and qualitative data collection within this process is addressed.

Chapter 8 outlines the method of data analysis used within this concurrent mixed-methods study (Creswell & Plano Clark, 2011). Data analysis utilises a two-stage approach as described by Creswell and Plano Clark (2007). The steps of data analysis are presented in the following order. Firstly analysis of quantitative data collected utilising the QTIHE. Secondly, the process of analysing data from semi-structured classroom observations through mixed-methods content analysis will be detailed, followed finally by the steps taken to integrate quantitative results from classroom observations with those of the QTIHE.

Chapter 9 sets out the results of the study. Firstly, response rates and results from quantitative analysis related to the QTIHE, including tests of reliability, are presented. This is followed by quantitative and qualitative data results from classroom observations. Thereafter, the results of correlation between the quantitative data from classroom observations and results from the analysis of the QTIHE are imparted. As it is essential in a mixed-methods enquiry to explicitly represent how both elements of the study merge in addressing the original aims and research questions, a tabular representation at the end of this chapter clearly demonstrates the integration of the quantitative and qualitative data.

Chapter 10 discusses the results of the data analysis. The three research questions are addressed in sequence. Reference is made regarding the connection between the results of this study and existing literature. In addition, and when
appropriate, indication is also made to theories and concepts that contribute to explaining the results of this research. Furthermore, potential for development of new and further research is identified when applicable.

**Chapter 11** provides a more general discussion of the completed thesis. The originality of the psychometric evaluation of the QTI and exploration of students’ classroom incivility in higher education are firstly considered. Secondly, contribution to existing literature of the psychometric evaluation of the QTI and exploration of students’ classroom incivility in higher education is contemplated. A proposed ecological model of student classroom incivility in higher education is offered and includes its theoretical links to the thesis and potential utility as a pedagogical tool. Thirdly, a synopsis of the originality, contribution and limitations of the methodology includes reference to the use of quantitative and qualitative classroom observations, the utilisation of a mixed-methods content analysis and also the challenges of covert classroom observation. The ‘usefulness’ and implementation of the findings of the research on practice are defined, particularly focusing on teachers’ reflective practice and professional development. Areas for prospective future research are identified to include subject and methodological potential. Finally a framework for evaluation of a mixed-methods study is utilised to demonstrate rigour in this approach.

**The conclusion** to the study is in the form of a brief summation of how this thesis has addressed the original aim and research questions, the pragmatic use of a mixed-methods approach, ethical considerations and relevance to educational practitioners.

1.6 **Chapter summary**

This chapter has provided a background summary for the study, defined civility and incivility and addressed the issue of perceptions of incivility related to methodology. In addition, the aims and specific research questions to be addressed have been specified, a mixed-methods purpose statement has been offered and theoretical, conceptual and ethical frameworks have been outlined. Finally, the organisation of the thesis is summarised including a brief overview of each chapter.
Chapter 2 Literature review

2.0 Chapter outline

This chapter will identify the existing literature on classroom incivility within a higher education classroom context. Definitions, models and types of incivility will be considered and the effects of classroom incivility on students and lecturers will be debated. Finally, the original contribution that this exploratory study makes to this subject area will be stated.

Terminology

The review of the literature identified that the vast majority of academic publications on disruptive classroom behaviour in higher education is located within the United States although recent studies have been located within Japan (Burrell, 2009), The People’s Republic of China (Clark et al., 2012; Clark, Otterness, Alerton & Black, 2010) and Kuwait (Al Kandari, 2011). The concept of incivility has been adopted within the majority of the extant educational literature to describe behaviours that disrupt teaching and learning within an instructional context within the USA. It is also employed to describe behaviours that do not directly disrupt teaching and learning within the classroom but are problematic and affect the process of teaching and learning from a broader perspective such as placing excessive demands on teachers to respond to e-mails, verbal abuse outside of the classroom and criticising teachers on social media sites. Determining attributes is a core aspect of concept analysis and occurs when characteristics appear repeatedly (Walker & Avant, 2005). The characteristics of the behaviours depicted in reports of higher education in the UK (Lee 2007; Tahir 2007) for example verbal abuse by students are synonymous with those described in the incivility literature. The term ‘incivility’ is therefore used for the purpose of this research.

2.1 Search strategy

A systematic search of electronic databases was performed including the British Education Index, Emerald Full Text, Expanded Academic Index, Professional Development Collection, Social Sciences Citation Index, Index to Thesis, the Educational Resources Information Centre (ERIC) and PsychINFO. The search incorporated various combinations of the terms student, behaviour, behavior (USA),
classroom, management, higher education, and incivilities (USA). Copies of doctoral dissertations were obtained following identification through the journal Dissertation Abstracts and Proquest Dissertations. Contact was made via e-mail to one author in the United States, Cynthia Clark, who was identified as having recently published several papers on the topic of classroom incivility. This led to access to some literature that was still in press. The literature that was identified within the search focused on a period from 1990 to present day as no published studies were identified prior to this date. Due to the limited amount of publications available on classroom incivility all of these articles were included within the review.

2.2 Definitions of civility and incivility
Definitions of civility and incivility within different contexts and their interpretation with relevance to this study have been discussed in detail in Section 1.4.2. In summary: Feldmann (2001) introduces the term academic incivility into the literature as rude, discourteous behaviour that disrupts the learning environment. Burke et al. (2014) defined student incivility as “discourteous or disruptive verbal and nonverbal student behaviours enacted toward others” (p.161). Furthermore Nilson and Jackson (2004) extend this definition to incorporate unacceptable student behaviour that may occur both inside and outside of the class. In addition Clark (2008d) proceeds to note that incivility “may be demonstrated by students or faculty and … violates norms of mutual respect in the teaching-learning environment” (p.38). Feldmann (2001, p.137) specifically defines classroom incivility as “any action that interferes with a harmonious and cooperative learning atmosphere in the classroom”.

2.3 Models of incivility
Anderson and Pearson (1999) proposed a model of incivility based on workplace organisations. Within this model less intense acts of incivility may serve as an initial step in an upward spiral that leads to physical or violent behaviour, for example, vandalism, sabotage, harassment and physical abuse. This model is relevant and applicable to higher education environments and higher education classrooms where minor acts of disruption by students can intensify into more serious behavioural incidents. This was identified in Boice’s (1996) observation of university classrooms where low levels of incivility that were left unaddressed escalated in
intensity, in some cases leading to aggression. Hirschy and Braxton (2004) describe a similar pattern within university settings, stating that if ignored or handled poorly incivility can escalate to a vicious circle of increasing disorder and frustration that according to Kuhlenschmidt and Layne (1999) can escalate to intolerable or dangerous levels when teachers lose control.

Anderson and Pearson (1999) describe the escalation of incivility as “the negative action of one party leading to the negative action of the second party, which results in increasingly counterproductive behaviour” (Anderson & Pearson (1999, p.478). They report that, similar to studies within a higher education context, the majority of workplace incivilities are of a less intense form, verbal not physical, passive not active, indirect rather than direct and subtle rather than overt. They and other authors (Felbinger, 2008) posit however that minor incivilities, such as verbal tension, are a common factor in the formation and escalation of conflict in an organisation that may result in more serious consequences such as harassment, aggression and physical assault. These authors suggest that many incivility spirals start when an individual believes that an organisational norm or right has been violated by a second person or organisation. It is then commonplace for them to reciprocate, which may be the beginning of the spiral. If either of the parties chooses not to participate in reciprocating negative behaviours the spiral formation ends. However if individuals exhibit increasingly counterproductive behaviours then the spiral increases. This may be an important fact for consideration for lecturers in acknowledging the importance of early identification and intervention in dealing with classroom incivility in higher education.

Anderson and Pearson (1999) also suggest that secondary spirals of incivility can occur when observation of incivility may fuel further or secondary acts thus permeating an organisation. The effects of incivility therefore may be the erosion of norms of civil behaviour, consequently enabling incivility to become the new norm. Within higher educational contexts there are implications that issues of classroom incivilities need to be dealt with on an institutional basis in line with current guidance on student conduct in general.
Anderson and Pearson (1999) identify a crucial stage of the spiral of incivility that they have termed the ‘tipping point’. At this stage the conflict situation has escalated into a crisis and the chain of continuing uncivil responses can evoke a strong punitive response, for example physical aggression. Cortina, Magley, Hunter-Williams and Langhout (2001) describe this sudden explosion of violence in workplace settings as the ‘popcorn model’ where minor perceived injustices led to ‘interpersonal heat’ that escalates over time. Boice (1996) described a similar pattern of incivility in his observation of incivility in higher education classrooms. He identified that classroom incivility was set in its course in the first few days of classes. During this time students test to see how lecturers will respond to classroom incivility and act accordingly. Boice (1996) observed that classes within his study started at the beginning of a semester with reserve, respect and optimism. In the first days of classes students generally displayed low levels of incivility as they waited for teachers to make the first move. In classes where teachers displayed positive motivators such as praise and encouragement and strong immediacies, for example demonstration of receptivity, openness, respect and caring for the student, classroom incivilities were reduced. Conversely, in some classes teachers exhibited low self-esteem and non-immediacy and this exacerbated the exploratory classroom incivilities of settling in, thus leading to an escalated level of chronically high and problematic behaviours. Early periods in the semester were therefore seen as a crucial turning point for classroom incivility.

The partnership between teacher and student in the generation of classroom incivility has been recognised in both compulsory (Waldrip & Fisher, 2003) and higher education (Boice, 1996; Clark, 2008b; Clark et al., 2012; Kolanko et al., 2006). Clark (2008b) likens incivility to a “dance” or “interactive exchange” (p.38). She suggests that if students challenge the teacher’s credibility in a disruptive way that the response that they may trigger might be that of an uncivil reaction. Likewise, several authors suggest that teachers are also instigators of incivility (Clark, 2008a; Luparell, 2006; McKinne & Martin, 2010; Savage & Favaret, 2006). Whether the ‘dance of incivility’ is initiated by student or teacher, the ensuing conflict may be a product of an escalating interplay and one in which each participant blames the other. Students and lecturers described similar patterns of “reciprocal incivility” in The People’s Republic of China (Clark et al., 2012, p.87).
Both groups of participants identified a lack of mutual respect, lecturers being unprepared and students sleeping in class.

The above models of incivility are important for several reasons. They identify a need for the causes of classroom incivility to be identified and prevented, thus avoiding the spiral or patterns of incivility from being initiated. They also require understanding of, and early intervention in, dealing with incivility, to stop the process before it reaches the ‘tipping point’, or before levels of incivility become unmanageable. As Luparell (2006) identified, “it is easier to address a small issue earlier than to address a malignant issue later” (p.103). Crucially, models of classroom incivility identify and acknowledge that teachers and not solely students, may have a role to play in initiating and addressing problematic behaviour in higher education classrooms.

2.4 Typologies of classroom incivility
2.4.1 Types of student classroom incivility

Incivility in higher education classrooms is an emergent problem with reports in the literature of an increase in the incidence of problematic student behaviour (Ausbrooks et al., 2011; Black et al., 2011; Clark, 2007; Clark, 2008d; Luparell, 2003; Thomas, 2003). Lashley and De Meneses (2001) found that lecturer respondents had observed an increase in student incivility compared with five years before their study. Hanson (2001) explored the phenomenon of classroom incivility from the perspective of teachers and reported that during the course of their career, the majority of teachers had experienced classroom incivility in some form. Recent studies have specifically identified an increase in student incivility in professional programmes both within the academic setting (Kalanko et al., 2006) and clinical placements (Lashley & De Meneses, 2001).

Hanson (2000) found discrepancies in the frequency and perceived disruptive nature of uncivil student behaviours as reported by students and teachers. She found that students’ perception of their engagement in incivilities was less frequent than that reported by their teachers. Teachers may hesitate to disclose incivility as they somehow feel that they are to blame and that the behaviour points to some deficiency in their teaching (Hirschy & Braxton, 2004). They also may be
embarrassed to acknowledge that they are experiencing incivility (Morrissette, 2001) and concerns regarding negative student evaluations might lead to teachers failing to discipline disruptive students (Hogan, 2007). Hanson (2001) also identified that teachers perceived student incivilities to be more disruptive than students’ perceptions. For example, some students reported certain behaviours, such as sleeping in class, acceptable if the impact on learning is minimal. On the contrary, a survey by Clark (2007) identified that the majority of students and teachers reported similar levels of student incivilities and both perceived them to be equally problematic.

More severe forms of classroom incivility are increasingly being cited. These include verbal and physical attacks as well as more intimidating behaviour (Kuhlenschmidt & Layne, 1999) in addition to verbal aggression aimed at teachers and objectionable physical contact of students with instructors (Lashley & De Meneses, 2001). Burke et al. (2014) identify uncivil behaviours in higher education that are of the highest intensity include bullying, harassment, and any acts of physical violence. These more extreme student behaviours incorporate an element of outright threats or intimidation. Luparell’s (2003) study of critical incidents of incivility by students reported detailed encounters as described by thirty-six lecturers that ranged from mildly to severely aggressive. Although no staff member identified physical contact they expressed the view that these events had a profound and prolonged effect including feelings of threats to personal wellbeing.

In addition to reports of an increase in prevalence of classroom incivility several types of student classroom incivilities are cited in the literature. These include persistent chatting, making sarcastic comments, arriving late, preparing to leave early, students participating in non-class relevant activities, use of mobile phones and technology, domination of discussion, disrespect, cheating, skipping class and acting bored or apathetic (Boice, 1996; Boysen, 2012; Clark, 2007; Clark & Springer, 2007; Gallo, 2012; Hanson, 2000; Hogan, 2007; Parr & Valerius, 1999).

When discussing types of student incivilities authors of the literature on this subject have placed uncivil behaviours into several different categories. Clark and Springer (2007) whilst focusing on the physical environment in which disruption takes place
suggest two categories and differentiate between in-class disruptions that included irrelevant conversation, domination of discussion and use of phones and out-of-class disruptions such as discrediting teachers, inappropriate communication and failing to attend appointments.

Meyers (2003) however distinguishes between the levels of disruption and identifies the two categories of behaviours that are more likely to be disruptive to students and lecturers. Overt behaviours are those that teachers may find more irritating such as talking loudly and eating and drinking in class. Covert behaviours that may also precipitate conflict but are more passive might include falling asleep, acting bored and missing classes. Similarly, Feldmann (2001) describes four categories of student incivility that relate to the effect of incivility on students. Annoyances are not dangerous but interfere with the learning environment, such as being late to class. Classroom terrorism refers to behaviours that hijack class time, for example students talking which is not related to the subject matter. Intimidation may include threats to the teacher of making complaints or poor course evaluation. Physical violence can range from attacks on equipment to personal assaults and are the most severe form of incivility.

Furthermore, Appleby (1990) found considerable consensus in relation to student behaviours that lecturers in higher education found most irritating. Behaviours were identified as fitting into three categories. Immature behaviours incorporated irrelevant talking, arriving late and eating in class. Inattentive behaviours included sleeping in class, skipping sessions, acting bored, being unprepared and not paying attention. Miscellaneous behaviours consisted of cheating and leading the teacher off task.

Hernandez and Fister (2001) characterise disruptive behaviours in relation to intent and propose two categories of rebellious or emotional behaviour. Rebellious behaviours seem to be intentional, defiant, annoying and disrespectful. The student who antagonises the teacher or challenges their authority could be described as exhibiting rebellious behaviour. Although emotionally disruptive behaviours may have annoying qualities, these behaviours seem to be unintended and precipitated by emotional distress. This may be exhibited in the form of anger, excessive
absences and attention seeking. Hernandez and Fister (2001) also stress the need for teachers to be able to differentiate between, and address accordingly, the differences between disrespectful and dangerous or threatening behaviour. Continuing this theme of student initiated incivility, Caboni et al. (2004) placed the types of classroom incivilities that had been observed by Boice (1996) during his study of incivility in higher education classrooms, into two categories, disrespectful disruption and insolent inattention. These categories may suggest active or passive disruption on behalf of the student. Disrespectful disruption refers to an active behaviour in which the student engages that impedes the learning of other members of the class. Receiving phone calls or leaving the class early are examples of disrespectful disruption. The pattern of insolent inattention describes behaviours that demonstrate an unwillingness to participate in class activities. This may take the form of being unprepared for classes or non-participation in group work.

Connelly (2009) groups uncivil behaviours into less serious and more serious. Less serious behaviours are annoyances to most teachers for example acting disinterested or sleeping in class. Serious student behaviours can involve hostility, threats or personal comments and although rare (Clark, 2008d) do occur. It is however important to note that labelling the severity of such behaviours is a subjective task that can vary between both teachers and students (Alberts, Hazen & Theobald, 2010).

The proposed categories of classroom incivility could be classed as pertaining to the physical environment or place of occurrence, the level of incivility and its effect on students and lecturers, the degree of intent of disruption and finally the active or passive nature of classroom incivility as perpetrated by students. These categories are important when considering mechanisms for the prevention and sanctioning of classroom incivility. They may assist teachers in differentiating those behaviours that actively disrupt the learning environment and need to be addressed within the class, such as constant talking, as opposed to those that may be dealt with after class with individual students, for example sleeping. Furthermore, these typologies of incivility may be used when considering sanctions, with more serious consequences for aggressive or potentially threatening behaviour.
2.4.2 Types of teacher classroom incivility

Although addressing the issue of student incivility is imperative, it is important that attention is also given to contributions that teachers may be making to incivility in the classroom environment. A widely cited study of classroom incivilities by Boice (1996) highlighted the role that the teacher plays in initiating disruptive student behaviours in higher education classrooms. However a lack of knowledge about the rate of teaching incivilities leads some to believe that these improprieties are a rare event (Braxton & Bayer, 2004). McKinne and Martin (2010) suggest that disrespectful behaviour by teaching staff is even more pronounced than that which is reported in the literature and therefore more attention should be given to this aspect of classroom incivility. Lasiter, Marchiondo and Marchiondo (2012) identified that 88% of final year undergraduate students surveyed indicated that they had encountered uncivil teaching behaviour during the course of their studies. Recent research has therefore increasingly refocused from student incivility to aberrant teacher behaviour (Clark, Farnsworth & Landrum, 2009; Clark & Springer, 2007; Lasiter et al., 2012). Review of the literature indicates that this is an area that still requires further study as there is currently limited published research.

Kearney, Plax, Hays and Vey (1991, p.310) first defined teacher incivility as ‘that which interferes with instruction and thus learning”. They state that letting students out of class early, returning assessments late, making tests too hard and delivering fast-paced, monotonous lectures can all be classified as teacher incivility. In addition, Amada (1994) professed that teacher behaviours such as showing up late for class, arriving unprepared, ignoring student incivility and using inappropriate language may encourage students to do the same. Hanson (2000) surveyed, observed and interviewed students and teachers on higher educational programmes. She reported that students identified teacher behaviours that included delivering fast-paced, non-involving and unclear lectures as being uncivil. Students also described teachers who belittle or taunt students, use profanities or sarcasm or appear to be cold and distant as displaying uncivil behaviour. In a subsequent study, students also identified teacher behaviours that they perceived to be uncivil as loss of patience, incompetence, poor teaching style and poor communication (Clark & Springer, 2007).
The problematic nature of teacher-student interaction was identified by Clark and Springer (2007), who utilised a mixed-methods approach to research students' perceptions of teacher incivility. Students gave accounts of teachers making condescending remarks, using poor teaching techniques, acting superior, criticising and threatening to fail students. Furthermore, Thomas (2003), who identified teacher incivility as a precursor to students’ anger, established that this incivility manifested itself as unfairness, rigidity, discrimination, unreasonable expectations of students and overly critical teachers. In addition, a study of students’ perspectives of teacher incivility and its impact by Clark (2008a) established three main themes of teacher incivility that included teachers behaving in demeaning and belittling ways, treating students unfairly and subjectively and pressuring students to conform to unreasonable teacher demands such as excessive numbers of assessments and insufficient time to meet deadlines. Subsequently, student narratives of teacher incivility (Lasiter et al., 2012) categorised behaviour as belittling, breaching student confidentiality and making them feel inadequate. Del Prato (2013) also reported students experiencing demeaning conduct and rigid expectations from teachers whilst lecturers in The People’s Republic of China identified incivility exhibited by colleagues as consisting of disrespect for students, dissatisfaction with the teaching role and being unprepared for class (Clark et al., 2012).

Kearney et al. (1991) focused on teachers as potential sources of classroom incivility. They identified 28 different categories of teacher behaviours that interfere with instruction and learning. The most frequently cited of these behaviours were sarcasm and putdowns, being absent, straying from subject and unfair testing. Factor analysis revealed that the teacher misbehaviour categories could be reduced to three factors labelled teacher incompetence, offensiveness and indolence.

Incompetence reflects a lack of basic teaching skills. This includes teachers who assign excessive work and rush through material. These same teachers may be accused of making tests too difficult and at the same time be unwilling to help students to succeed. The profile of incompetence is further extended to those teachers who are unenthused about their subject or speak in a monotone. Not only
does incompetence refer to instructional ineptitude, but this factor also implies that students perceive these teachers as ignorant and confused, providing students with inaccurate information and lacking currency in their area. Teacher offensiveness included a number of behaviours that implied that teachers could be mean and cruel.

Offensive teachers may humiliate students in front of the class, insult and publicly embarrass them. They may use profanities and become angry in their efforts to intimidate students and act superior and arrogant. Studies have identified that students have experienced teachers insulting students in front of others and appeared uncaring (Savage & Favret, 2006) and also disrespect, hostility and unfriendliness (Cooper et al., 2009). Finally, offensive teachers appear unreasonable and arbitrary, punish the whole class for one student's infraction and present themselves as rigid, inflexible and authoritarian.

Indolence best exemplifies the profile of the absent-minded teacher. They may fail to show up for class, appear late and neglect to return student work on time. Their disorganised manner may cause them to fall behind in their schedules forcing them to adjust their syllabuses.

The types and categories of teacher incivility identified within the literature falls into two areas, those related to classroom teaching skills such as incompetence or indolence and those related to student-teacher interaction, for example offensive, belittling or demeaning behaviour. These two areas are important when further contemplating the causes of teacher incivility and also when addressing the prevention of classroom incivility that may be deemed to be teacher initiated.

2.5 Causes of classroom incivility

2.5.1 Causes of student classroom incivility.

The literature strongly suggests that teachers and students are partners in the generation of classroom incivility both in compulsory secondary (Waldrip & Fisher, 2003) and higher education (Boice, 1991; Kearney et al., 1991; Kolanko, 2006; Clark, 2008b). Waldrip & Fisher (2003) assert that within classrooms the behaviour of the teacher is influenced by the behaviour of the students and vice versa.
Wubbels (2005) therefore suggests that appropriate student-teacher relationships are an important means of preventing discipline problems in classrooms. This finding was similar to that of Maranzo and Maranzo (2003) who in their analysis of studies within secondary education classrooms reported that teachers who had high quality relationships with their students, such as providing clear purpose and guidance, being co-operative and aware of students’ needs had fewer discipline problems. In addition Kuhlenschmidt and Layne (1999) implied that poor student-teacher communication might result in incivility in higher education classes.

Braxton and Bayer (2004, p.10) described the interactional nature of incivility that occurs between teachers and students. They concluded that “incivility is not unidirectional, nor does uncivil behaviour occur in a vacuum. Instead, staff and student incivilities are an interlocking phenomenon”. Likewise Boice (1991) suggested that teachers and students are partners in the generation of uncivil behaviours and that incivility is an interdependent exchange, with Morrissette (2008) stating that “incivility begets incivility” (p.8) and that teacher initiated misbehaviours will instigate students to act likewise.

Kearney et al. (1991) were first to identify in the literature that the teacher might be a primary determinant of incivility in higher education classrooms. They emphasise the critical role that students’ perceptions of what teachers say and do play in influencing students’ motivation, achievement, attitudes and related student reactions. That is, what teachers are perceived to do influences students’ thinking, which in turn mediates students’ behaviour. The authors then suggest that as teachers’ behaviours affect how students think and behave then teacher misbehaviours may act as potential antecedents to undesirable student consequences. In other words, teacher misbehaviours may be a primary, albeit indirect, determinant of student disruptions in the classroom. Kuhlenschmidt and Layne (1999) caution however that disruptive student behaviour may have nothing to do with the teacher or the class, that extraneous student factors may be responsible and should be considered.

There is strong evidence that links teacher immediacy and the level of student classroom incivility. Immediacy refers to communication behaviours that reduce the
psychological and physical distance between people (Golish & Olson, 2000). Non-verbal immediacy includes such behaviours as forward body leans, physical closeness, direct eye contact, appearing relaxed and smiling. Verbal immediacies are characterised as prompts, motivational messages and positive questioning (Summers, Bergin & Cole, 2009). Collectively, these immediacy behaviours communicate perceptions of warmth, friendliness, closeness and liking. Immediate behaviours indicate greater ‘liking’ whilst non-immediate or avoidance behaviours communicate greater ‘disliking’. (Golish & Olson, 2000). Thus teachers who feel positive towards their students are more likely to be immediate with them, thereby encouraging students to respond favourably. Researchers have found positive correlations between teacher immediacy and higher education evaluations of instruction quality (McCroskey & Richmond, 1992) and student achievement (McCroskey, Fayer, Richmond, Sallinen & Barraclough, 1996). Witt, Wheeless and Allen’s (2004) meta-analysis of studies of immediacy and learning demonstrated that it was most highly associated with affective learning and enhanced the teacher-student relationship. Conversely, when faced with non-immediate teachers, students may respond with corresponding antisocial behaviours (LaBelle, Matin & Weber, 2013).

When considering teachers as a potential source of student behavioural problems in higher education classrooms Kearney et al. (1991) found that student behaviour was heavily influenced by teacher immediacy. When presented with a warm, friendly, immediate teacher, students would take ownership of their classroom behaviour and levels of incivility were low. Tang, Shieu-ming and Hsein-hsien’s (2005) study of students’ perceptions of teachers reported that interpersonal relationships and personal characteristics were the most significant categories in differentiating between effective and ineffective teachers; effective teachers scoring highly in both categories. Similarly, Alberts et al. (2010) suggest that students prefer teachers who are entertaining, approachable and flexible. In contrast, when faced with a cold, aloof, non-immediate teacher, students would identify the teacher as the precursor for their disruptive behaviour and levels of incivility were high. Furthermore, after conducting a five year study of classroom incivility within a higher education setting, Boice (1996) observed that teachers who consistently displayed non-verbal immediacies were least involved in incidents of classroom
incivilities, either their own or their students’. Furthermore, teachers who engaged in a programme of increasing their immediate behaviour showed clear improvements in the lessening of levels of incivility within their classes. Boice surmised that teachers should focus on enhancing immediacy skills to deter uncivil behaviour. It is worth noting however that Boice’s study was limited to non-verbal immediacy and did not include verbal immediacy behaviours. Summers et al. (2009) suggest that both types of immediacy are critical for student learning, particularly in large classes.

Immediacy overlaps with the concept of autonomy support. Autonomy support is indicated by behaviours such as acknowledging students’ feelings and perspectives, providing students with information and choice and minimising the use of pressure and control (Reeve, Jang, Carrell, Jeon & Barch, 2004). A typically autonomy supportive teacher will demonstrate behaviours such as listening to students, asking students what they want, responding to student generate questions and supporting student motivation.

Autonomy support may therefore be viewed as a more comprehensive way to view immediacy. Summers et al. (2009) in a study of undergraduate classrooms reported that teachers who displayed autonomy support were more tolerant of classroom incivility. Thus, by giving more choice, control and support to students in the form of autonomy support, instructors may perceive a corresponding loss of control and find acceptance of incivility to be an agreeable compromise.

A study that examined the influence of teaching assistant attire in the university classroom found significant relationships between attire and the likelihood of student incivility (Roach, 1997). Within the context of their study professional dress was considered to be attire that is above the casual attire level of the students and was measured by a professional dress assessment instrument. Although results indicated that teachers with informal dress were rated as most approachable they had lower ratings of respect. Findings revealed that as teacher dress increased in professionalism, student incivility decreased. Conversely, when teacher dress decreased in professionalism, student incivility increased. Early career geography teachers also noted that their physical appearance influenced student-teacher
interactions (Alberts et al., 2010). When asked to comment how personal characteristics might influence students’ perception of them they cited height, weight and physical attractiveness as relevant factors. For some teachers these factors were considered to be negative in manner and were cited as being a possible factor in student incivility.

Qualitative research by Clark (2008c) examined undergraduate student and teachers’ perceptions of the factors that contribute to incivility in education. Student and teacher responses identified two primary factors that contribute to student incivility: stress and an attitude of student entitlement. Students identified three major themes related to student stress, namely burnout from demanding workloads, competition in a high-stakes academic environment and feeling compelled to cheat to compete for grades. Teachers also reported student stress as a major contributor to student incivility with similar reasons to those that had been identified by students. The three major areas were identified as burnout, competition and the role demands of family, theoretical assessments and practice placements. Students stated that four major areas constituted student entitlement. These areas included refusing to accept personal responsibility, assuming a consumer mentality, feeling that students are owed an education and making excessive excuses for their failures. Teachers also gave account of student attitude of entitlement as a contributing factor to student incivility. They named assuming a ‘know it all’ attitude, assuming a consumer mentality and believing that they are owed an education as themes within the category of entitlement. Researchers have also identified several student personality traits associated with incivility, including consumerism orientation to higher educational studies and narcissistic tendencies (Nordstrom, Bartells & Bucy, 2009) in addition to having an attitude of academic entitlement (Achacoso, 2002; Chowning & Campbell, 2009; Kopp & Finney, 2013).

Domination of classroom discussion has been identified as a form of classroom incivility by both students and teachers (Clark, 2007; Clark & Springer, 2007; Hanson, 2000; Parr & Valerius, 1999). Karp and Yoels (1998) believe that some incidents of incivility are due to student annoyance at their peers who have a pattern of continually answering class questions. Moreover, they suggest that as other students become less involved, the less they learn and as they become more
anonymous they are more likely to become involved in uncivil behaviour. According to Howard and Baird (2000), within the typical classroom, participation in discussion will be consolidated in the hands of a few, with the majority of students being passive observers or only occasional participants. Moreover, Hockings, Yamashati, McGinty and Bowl (2008) identified that students felt intimidated by peers who had dominated the session.

Nunn (1996) identifies that interaction is dominated by 8% of students and a study by Howard and Baird (2000) found that a much higher percentage of non-traditional students, that is those 25 years of age or more, participated in discussion than traditional students. Their research proposed that the degree of concern shown by non-participants suggested that they perceived the classroom as a potentially hostile, threatening environment that led to them feeling insecure. Moreover, Boice (1996) reports that a few intimidating students can discourage open displays of interest in other class members. As stated above, within the published literature both students and teachers have perceived domination of discussion within higher education classrooms as uncivil.

Hirschy and Braxton (2004) suggest that large class size might be related to increased incidents of incivility whilst Carbone (1999) established that large classes have poorer attendance, more cheating and increased off-task behaviour. Furthermore, Cooper and Robinson (2000) recognised students’ concerns regarding an increase in noise and distraction in bigger groups. Alberts et al. (2010) and Swinney, Elder and Seaton (2010) both reported studies that identified higher levels of incivility in larger classes of undergraduate geography and accounting students respectively and gave accounts of fewer uncivil student behaviours in smaller classes and seminars. Recently, Tilley (2014) concluded that an increase in complaints and concerns regarding student behaviour were concurrent with rising class sizes.

Schnieder (1998) intimated that higher levels of incivility in larger classes may be due to the difficulties of commanding the attention of all students within such a group. She reasons that the anonymity and impersonal nature of a large class size can inspire students to display behaviours that would they would not exhibit in small
classes. Burke et al. (2014) and Elder, Seaton and Swinney (2010) also suggest that anonymity is positively related to incivility stating that Le Bon’s early research on crowd theory cites anonymity as a key factor contributing to the antisocial behaviour of people in groups. When students become lost in a crowd such as a large class or lecture theatre, their feelings of anonymity may lead to incivilities. Furthermore, Pearson, Anderson and Wegner (2001) believe that in an environment where anonymity is high the probability of negative repercussions decreases as the instigators are unknown. Harris (2006) also refers to the process by which an individual’s identity is replaced by that of the group hence they may view their own actions as small and insignificant.

Student levels of fatigue may impact on the incidence of classroom incivility. As the Higher Education Funding Council for England (2009) aims to increase the proportion of students (full-time and part-time, both young and mature) from under-represented groups in HE, students are coming into higher education with additional responsibilities compared with students in the past. Many of these students come from families of low socio-economic status (Higher Education Statistics Agency 2014) and this combined with the introduction of tuition fees in 2006 means that more students than ever have to take on employment supplementary to their student status to enhance their income.

In addition to student employment, the number of mature students that are entering higher education in the UK remains over 20% (Higher Education Statistics Agency, 2015) and for those with responsibility for families this may influence a student’s ability to cope with the stresses of academia. These factors may potentially result in tardiness, chronic absenteeism and students being ill prepared for class.

Behavioural experiences in secondary education classrooms may be a precursor to behaviours that students entering higher education deem to be acceptable. The Department for Education and Skills (DFES, 2005) in their report ‘Learning Behaviour’ identified the main issue for teachers and for pupils as being the effect of frequent, low level disruption that has a wearing effect on staff, interrupts learning and creates a climate in which it is easier for more serious incidents to occur. The Office for Standards in Education (OFSTED, 2005) defined these
behaviours as ‘incessant chatter, calling out, inattention and other forms of
nuisance that irritate staff and interrupt learning’. More recently, the House of
Commons Education Committee Report (2011) ‘Behaviour and Discipline in
Schools’ echoed these findings with a consensus that low level disruption such as
swearing, not paying attention, interrupting and name calling was most prevalent
with only small pockets of more challenging behaviour. Within this report, teacher
statements identified that the impact of low-level disruption was not being
addressed and that the impact on learning was being ignored. Parents also
expressed anxiety that disruptive classroom behaviour diverted the teacher’s
attention and as a consequence limited their children’s learning. A survey of the
National Association of Schoolmasters/ Union of Women Teachers (2009)
confirmed these concerns and reported that low-level disruption led to a loss of
teaching time. The National Union of Teachers (2005) described the impact of
unacceptable pupil behaviour, whether low level or extreme as disrupting the
continuity and consistency of teachers and damaging teachers’ confidence and
young people’s learning. Furthermore, a survey by the Guardian Teacher Network
(2011) revealed that more than half of teachers have considered leaving the
profession over worsening pupil behaviour.

From a sociological perspective there are several theories that may help to account
for students’ disruptive classroom behaviour. Some sociological theories focus on
why people choose not to deviate from the accepted norms of behaviour especially
in instances that may serve to provide personal benefit, for example students who
never arrive at class late or leave early. For example, according to deterrence
theory (Akers, 1997) incivilities in the classroom are mediated by the perception of
being caught or the punishment likely to be encountered. When there are no set
rules and the likelihood of punishment is low (as may be the case in some HE
classrooms) deterrence theorists would argue that incivilities will increase,
conversely having strict guidance and related penalties will reduce the incidence of
disruptive behaviour. This theory was partially substantiated by Patron and Bisping
(2008) who investigated the causes of classroom incivility amongst undergraduate
business students. They concluded students were less likely to engage in incivility
when the probability of getting caught was high. However the level of severity of the
punishment was found to be insignificant and that the embarrassment of being
caught indulging in inappropriate behaviour was more of a deterrent. Teachers therefore need to be prepared to identify perpetrators of classroom incivility and be proactive in addressing such behaviour with explicit rules and consistency in their application.

Rational choice theory (Akers, 1997) is closely related to deterrence theory but takes into account the possible rewards for the behaviour; it involves a logical decision-making process. For students desiring that extra ten minutes’ sleep, the reward of feeling more rested might simply outweigh the cost associated with arriving late in class. Both deterrence theory and rational choice theory would both argue that the more that teachers and students pay attention to, and place sanctions against, disruptive classroom behaviours, the less likely they are to occur. Anomie or strain theory (Bray & Del Favero, 2004) posits certain ‘normalness’ in society. Anomie often arises in a society growing increasingly complex and as a result there are fewer commonalities binding people together. As a result people feel less attached to the society and its rules. In an increasingly diverse student population linked to widening participation targets set by the Higher Education Funding Council for England (2010) these divisions related to culture and academic achievement and may be profound, leading to students disregarding rules and regulations that are in place.

Social bond theory (Hirschi as cited in Durkin, Wolfe & May, 1999) like anomie theory (Bray & Del Favero, 2004) focuses on the weakening of social ties within a group, in particular the four major areas of bonding that promote or prevent inappropriate behaviour: attachment, commitment, involvement and belief. According to Hernandez and Fister (2001) a strong attachment to peers who participate in disruptive classroom behaviours such as side conversations and persistent late arrivals or early departures increase the likelihood of one’s own participation. Patron and Bisping (2010) found that students were more likely to engage in certain types of incivilities such as arriving late, leaving early and chatting as the extent of the behaviour increased.

According to social disorganisation theory (Akers 1997) rapid changes in society or in a group can cause a change in social values such that patterns of behaviour in
the group are changed. Higher education is often a period of self-adjustment and exploration as students seek to fit in with peer groups. Failure to cope with the transition may cause students to reduce attention to their educational pursuits and lead to classroom disruption (Bray & De Favero, 2004). Social disorganisation theory explains classroom disruption as a condition associated with the effects of higher education on the psychosocial development of students.

Students may feel isolated and disconnected when entering higher education particularly in light of an increasingly diverse student population. Bayer (2004) believes that we should not presume that students understand behavioural norms appropriate to their role as students within higher education. Perlmutter (2004) states that “nothing about education is obvious to students. Most of us expect our students to have learned how to be students by the time they reach college, yet many need help” (p.15). It is therefore suggested that teachers use the HE classroom as a place for students to learn behaviour that is regarded as acceptable to their peers and teachers (Richardson, 1999). As Patron and Bisping (2010) identified that students were less likely to engage in behaviours that they deemed to be inappropriate. This indicates that setting guidelines on classroom conduct as an early intervention may be appropriate in preventing classroom incivility.

The literature highlights the complex nature of classroom incivility that is deemed to be instigated by students. Moreover, it serves to draw attention to the interactional nature of the student-teacher relationship in this respect. The importance of this relationship is demonstrated by the affect that immediacy and autonomy support has on both behaviour and learning. The physical environment, specifically class size may give rise to difficulties in promoting an interactive relationship and commanding classroom control. Changes in the higher education student population and the increase in the number of mature students has resulted in a change of classroom dynamics that in itself may cause tension and student incivility. Finally there are suggestions that students may be continuing to display behaviour in a higher education context that they have exhibited or observed within a compulsory secondary education environment.
2.5.2 Causes of teacher classroom incivility

As previously stated, the dearth of research into teachers’ incivilities might lead to the view that these misdemeanours are uncommon events. Braxton and Bayer (2004) and McKinne and Martin (2010) suggest that disrespectful behaviour by teaching staff is even more prominent than most would recognise. Thus, studies into the causes of such conduct are deemed necessary (Hanson 2000; Braxton & Bayer, 2004).

Cortina et al. (2001) suggest incivility in the workplace environment may function as a means of asserting power. Their study hypothesised and confirmed that having power within an organisation was positively associated with instigation of incivility. Similarly, within higher education environments, hierarchical structures lead to an imbalance in the distribution of power in the teacher-student relationship (Brown, 1993). Schleef (2009) describes the default position of the teacher at the beginning of a seminar as manifestly one of power where the teacher stands at the front, sometimes on an elevated podium, and all of the seats are orientated towards him/her. However, as the seminar progresses “power is communicatively negotiated between teacher and students” (Schrodt et al., 2008, p.181).

Interviews with students and teachers identified that both groups agreed that teachers have most power within the educational process, the most important source being ‘expert power’. Over-reliance on expert power was seen as authoritarian and to be avoided. Also of great significance was the recognition of personal power in influencing the student-teacher interpersonal relationship. Students wanted teachers to share personal power and take an interest in them as an individual. Some teachers were seen as ‘power keepers’ and were described as teachers who gave orders, distanced themselves and had poor interactive teaching skills. This was in contrast to power sharers who negotiated, were informal and approachable (Golish & Olson, 2000).

One communication behaviour that is often identified as a component of approachable teacher style is self-disclosure (Cayanus & Martin, 2004; Hill, Ah Yun, & Lindsey, 2008). By definition, self-disclosure is “the personal information that instructors share about themselves that students are unable to obtain from
other sources” (Myers et al., 2009, p.9). Although some research has shown teacher self-disclosure to be positively related to effective student learning (Cayanus & Martin, 2008) evidence of the impact of instructor self-disclosure has been mixed. Baker et al. (2012) reported that as teachers’ self-disclosure increased, students’ incivility amplified however this was correlated to disclosure of private information about personal failures and character weakness that violated student expectations of self-disclosure. This was in contrast to findings by Miller et al. (2014) who identified that self-disclosure that confirmed professional credibility led to lower levels of incivility.

Teacher power in education has also frequently been associated with restricted freedom and domination of authoritarian leadership (Cooper et al., 2009) and has raised ethical issues as teachers utilise power to assist or impede students’ acquisition of knowledge (Savage & Favret, 2006). The impact of student consumerism on higher education where “knowledge comes in packages and teachers are the retailers” (Wibbenmeyer-Beck, 2009, p.31) highlights the reconfiguration of the structure and balance of power in higher education. Furthermore, as previously discussed in relation to incivility the perception of the concept of incivility consistently establishes relations of power whenever it is raised (see Section 1.4.2). Moreover, it is always the powerful who determine its meaning, one that whatever it’s specific content, demeans and delegitimises those who do not meet its test. Scholars have documented these power differentials and how views of civility were used to define them. Buonfino & Mulgan (2009) suggest that incivility is often generated and encouraged by major inequalities of power whilst Carter (1998) states that those in power use incivility in order to preserve power. Student incivility therefore may be seen in some cases as students redressing this balance of power and challenging hierarchical educational systems.

It is suggested that teachers are involved in creating a negative classroom environment when they “pull rank” (Matus. 1999, p.306) and demonstrate overt power differential (Lasiter et al., 2012). When Clark (2008b) conducted a phenomenological study to examine students’ perceptions of teacher incivility, students described feeling “inferior to teachers and caught in a no-win power struggle with little possibility for successful resolution” (p.5). They described a
sense of powerlessness and being in a position of disadvantage stemming from the power differential between teachers and students. Students believed that teachers displayed abuse of authority and rank (rankism) and that this abuse contributed to teacher incivility in higher education classrooms. Rankism is defined as “the abuse of power based on a person’s rank and position. It occurs when people abuse their power to demean or disadvantage those that they outrank” (Fuller, 2003, p.3). Achieving rank and position within the academic hierarchy is an entirely legitimate aspiration in higher education, however the abuse of rank by staff can compromise the educational mission, erode student confidence, undermine the ability to learn and diminish the will to cooperate. Students and teachers both suffer the ill effects of rankism with students finding that they are resisting and not learning and teachers focusing on disciplining rather than mentoring (Clark, 2008b).

Clark (2008d) examined undergraduate students’ and teachers’ perceptions of the factors that contribute to teacher incivility in nursing education. Student and teacher responses identified two primary factors that contribute to teacher incivility namely, stress and an attitude of superiority. Although both groups identified an attitude of superiority as a cause of teacher incivility, students did not associate stress as a contributory factor. Teachers identified four major themes in relation to stress including demanding workloads, high turnover of staff, role stress and exposure to student incivility. Teachers reported three major areas that related to teacher superiority. These included teachers exerting power over students, setting of unrealistic student expectations and teachers displaying a ‘know it all’ attitude. Students also perceived teacher superiority as being a cause of teacher incivility. They identified exertion of power over students, threatening to fail students and devaluing students’ work and previous academic experience as relevant factors.

When considering the causes of lecturers’ incivility, benefit may be derived from contemplating the factors that have been identified from the literature including rankism, stress and student-teacher interaction. Reflecting on these factors can be influential in implementing change in practice. Several authors (Anderson, 1999; Carbone, 1999; Kuhlenschmidt & Layne, 1999; McKinne & Martin, 2010) suggest introspection into lecturers’ and students’ own classroom behaviours and reflection on practice as the necessary starting point in reducing incivility.
2.6 The effects of classroom incivility

2.6.1 The effects of classroom incivility on students

Within the literature on classroom incivility in higher education authors report the impact that student and teacher incivilities have on the teaching and learning process. The effects of students’ classroom incivility have been described as restricting the teaching and learning capabilities of institutions (Feldmann, 2001), inhibiting and undermining learning and academic enquiry (Bray & Del Favero, 2004; Carbone, 1999; Clark, 2008d; Sorcinelli, 1994) affecting other students’ learning opportunities (Braxton & Bayer, 2004; Morrissette, 2001) and impacting on the learning environment in a negative way (Amada, 1999; Seidman, 2005).

Boice (1996) observed that continued persistence of classroom incivility resulted in the divestment of both teacher and students, with students becoming less involved in the classroom experience. These incivilities manifested themselves in students arriving late, leaving early, chatting off topic and making sarcastic comments. Similarly, Anderson (1999) identified the cumulative effect of passive incivility in classes as taking its toll on students leaving them with less energy to facilitate their cognitive growth and positive learning outcomes.

Research by Hirschy and Braxton (2004) focused on the effects of students’ classroom incivilities on students’ academic and intellectual development and on their commitment to their university. The study indicated that classroom incivilities can harm the classroom environment and thus have deleterious consequences on students. Furthermore, they found that the effects of incivilities extend beyond the confines of the classroom and can damage the students’ efforts to succeed at their institutions. In addition, high incidents of disruption and inattention in the classroom impinge negatively on students’ perceptions of their own academic and intellectual development. The authors report that students who frequently observe classroom incivilities may spend less energy thinking critically during the class and be less engaged with the course material afterward. They stated that students who become frustrated with a chaotic classroom environment may feel isolated and sense that their beliefs and values do not fit in with those of other students. These views might lead to a decline in commitment to their university and have a negative indirect impact on student retention. This is a view that is corroborated by Polinsky (2003).
who identified a negative learning environment as a key reason for students leaving higher education early.

More recently, mobile phone use in classrooms, for the purposes of leisure rather than education, has been cited as disrupting teaching and learning in academic settings (Lepp, Barkley, Sanders, Rebold & Gates, 2013). Furthermore, inappropriate mobile phone use has been associated with decreased academic performance (Lepp, Barkley & Karpinski, 2015).

The effect of teacher incivility on students is not widely rehearsed within the literature although more recent studies have begun to explore this aspect. Braxton and Bayer (2004) describe teacher incivility, in particular personal criticism, as affecting student learning and detracting from an open educational environment. Braxton et al. (2004) studied violations of students’ teaching expectations such as respect and organisation in undergraduate classrooms and established that treating students in a demeaning and patronising manner or showing disrespect for the needs and sensitivities of students led to a classroom climate marked by strain and disharmony. They also stated that teachers’ inattentive planning, inadequate course design, poor communication and condescending attitude negatively affected the academic and intellectual development of students.

Studies have described various aspects of student nurses’ perspectives on teacher incivility. Thomas (2003) examined the effect of uncivil teacher behaviour on nursing students and reported that students felt vexed about perceived teacher unfairness, rigidity, and harsh criticism. Similar student experiences were described by Clark (2008d) in her phenomenological study to describe nursing students’ uncivil encounters with teachers and their emotional responses to these events. Three themes emerged from this study in relation to emotional responses as students described feeling traumatised, powerless and angry. Participants described feeling traumatized by uncivil encounters with teachers. Subthemes arising from the study included feelings of stress, depression, fear and physical symptoms such as loss of sleep, nausea and headaches. Students depicted feelings of helplessness and loss of power that included feeling out of control and lacking self-confidence. They felt incapable of effecting change in the face of
incivility and believed that they had too much to lose by challenging the situation or expressing discontent. A subsequent study of undergraduate students also reported that participants were left feeling frustrated, depressed and lacking in confidence following uncivil encounters with teachers (Mott, 2014).

Student anger towards teachers, others or themselves resulted from failure to address teacher incivility. Thomas (2003) identified feelings of anger as a consequence of teacher incivility amongst nursing students. While some students harboured animosity, others reported taking their anger out on family, friends or themselves. Behavioural responses within this study modelled Hirshman’s (1990) findings of courses of action for those who are dissatisfied with their position within an organisation: namely loyalty, exit or voice. Students remained on the programme and conformed as expected, stayed and attempted to effect change or left the programme.

In a survey by Marchiondo et al. (2010) students reported having felt anxious, nervous or depressed in response to incivility by teaching staff. Del Prato (2013) described incivility as interfering with student learning, self-esteem and confidence. Lasiter et al. (2012) suggest that teacher incivility may increase stress and anxiety in students who already face significant stress in their course work and that students who are sensitive to criticism may react with anger, physical or emotional withdrawal or resentment. They further suggest that academic incivility has the potential to decrease programme satisfaction and student retention.

Classroom incivility affects both students and teachers. The classroom environment can become tense, chaotic and disorganised, creating an environment that does not support learning. Students can start to invest less energy into their intellectual development, become frustrated and ultimately decide not to continue with their educational pursuits. Teacher incivilities may affect student learning if teaching is ineffective and students may be left feeling traumatised, powerless and angry when interpersonal incivility occurs. Classroom incivility in higher education is therefore an important area for further research.
2.6.2 The effects of classroom incivility on teachers

The consequences of classroom incivility in higher education have in the main focused on the student experience. There is a lack of primary research that explores the impact of student incivility on teachers.

Boice (1996) observed that the continued persistence of classroom incivility resulted in teachers becoming less enthused about their students and their course. Furthermore, Morrissette (2001) states that uncivil student behaviour can lead to teacher stress, discontent and eventual burnout. Braxton and Bayer (2004) describe the effect that deviant student behaviour can have on teachers' classroom performance as detracting their activity away from education and learning to focus on discipline and classroom management. Correspondingly, Appleby (1990) believes that teachers who realise that they are likely to face inappropriate behaviour during lectures may begin to devote time and energy to developing coping strategies rather than focusing on teaching and that in addition teachers who dread having to deal with student incivility in class can become demoralised and disillusioned with the overall teaching process.

Interviews with Luparell (2003) were conducted to ascertain the short and long term effects that critical incidents of uncivil student encounters had on lecturers. In this study thirty six critical incidents were reported by twenty one lecturers and alarmingly recollections of the confrontations contained visceral metaphors that all shared a common theme with staff feeling attacked or injured in some form. Twenty-three encounters occurred in the context of poor student performance requiring constructive criticism or resulting in course failure. The encounters ranged in severity from mild to highly aggressive. The short- and long-term ramifications of the uncivil encounters described by the participants in this study included issues involving time, money, productivity, and wellbeing.

Sprunk, La Sala and Wilson (2014) elicited an understanding of the experiences and impact that nursing faculty encountered with nursing student incivility using a phenomenological research design. All the teachers that participated in the study described being harmed emotionally and/or physically. Participants voiced being scared, worried, intimidated, threatened, paranoid, stressed, distressed, upset,
defeated, and sad. Some described feelings of anxiety and dread. Several participants reported feeling upset due to the classroom disruption resulting from incivility and the negative impact the uncivil behavior had on their relationship with a student or group of students. Participants described negative physical effects such as migraines, bowel disorders, inability to sleep, and crying.

The teacher participants experienced both short- and long-term consequences to their wellbeing; these ranged from physical signs and symptoms to emotional reactions. For example, immediate and ongoing sleep disturbances were mentioned by many teachers, as were various emotional responses, such as ‘reliving’ the event. Several teachers described nagging self-doubt and lack of confidence in their teaching abilities after the encounters. Tremendous amounts of time were spent in administrative follow-up to the incidents, and some participants incurred significant out-of-pocket expenses for legal fees and security systems. The price of staying in the teaching role was deemed too high for the rewards received by some teachers. Although one had since returned to work, three participants had left teaching and attributed their departure to a combination of things, one of which was the uncivil interactions with students and the resultant events. Others were contemplating how much longer they could or would continue to stay in teaching.

Similar findings have been reported within a secondary school context where disruptive behaviour exacerbated “job burnout” (Evers, Seaton & Swinney, 2004, p.9) and was cited a primary cause for teachers leaving their profession (Shepard, Shepard & True, 2008).

There is little research on the effect of student incivility on teachers in higher education; however studies have started to identify that chronic levels of incivility and incidents of a threatening or aggressive nature can affect physical, emotional wellbeing and lead to ‘burnout’ and resignation from employment.

2.7 Addressing classroom incivility.
The literature suggests several reasons why teachers fail to acknowledge and respond to student incivility. Nilson and Jackson (2004) blame universities that sanction only the most offensive behaviour in an attempt to increase student
retention. Hernandez and Fister (2001) also believe that teachers often choose not to discuss their thoughts, feelings or details about disruption even with colleagues who may be experiencing similar kinds of behaviour. They suggest that the reasons for this may be linked to feelings of incompetence, responsibility and embarrassment and that in addition teachers may feel frustration on the basis of perception that there is a lack of institutional support in addressing incivility. Sorcinelli (1994) believes that teachers may hesitate to deal with disruptive behaviour as they somehow feel that they are to blame and that the behaviour points to some deficiency in their teaching, they also may be embarrassed to acknowledge that they are experiencing misbehaviour (Morrissette, 2001). Rutherford (1991) suggests that if student offences in the classroom are not egregious then teachers may choose to ignore them. They may also fail to deal with incivility as they are unsure how to deal with disruptive situations. Boice (1996) believes that teachers accustomed to working amid disorder suppose that little can be done to change it and therefore do less to discourage the rudeness and demoralisation that follow.

Feldmann (2001) suggests two basic reasons why disruptive classroom behaviour even at its most basic level should be addressed. Firstly, teachers are ethically bound to do the best that they can to help students to learn. Secondly, failure to confront this type of behaviour may appear to condone it and thus authorise students to test authority by increasing the degree of disruption. Likewise, Sorcinelli (1994) describes the scenario where uncontrolled inappropriate behaviour becomes acceptable and more difficult to stop. She found that teachers in higher education often have little training in dealing with the interpersonal dynamics involved in working with students. Richardson (1999) and Amada (1999) also raise the issue of risking a gradual escalation of unpleasantness if teachers ignore small uncivil acts of behaviour. It appears that the more that staff pay attention to and place sanctions on disruptive classroom behaviours, the less likely they are to occur (Bray & Del Favero, 2004). Equally as important, Hirschy and Braxton (2004) report that curbing student classroom misbehaviours can have a positive and direct effect on student retention as students described having an increased positive student experience in classes where levels of incivility are reduced.
Recently attention has focused on the introduction by several universities of student contracts that aim to highlight to students their obligation to conform to the institutions’ regulations and codes of conduct (Meike, 2006). The majority of codes of conduct within higher education are generic. They fail to recognise that the classroom setting in particular is an academic milieu in which a vast amount and variety of incivility takes place and for this reason it deserves special consideration (Amada, 1999, Bayer, 2004). Feldmann (2001) and Morrissette (2001) suggest that all students should be provided with written expectations of classroom conduct with the syllabus for a semester. More specifically, Feldmann (2001) and Nilson and Jackson (2004) suggest that this information should clearly state which types of behaviour are unacceptable and why, the appropriate sanctions, procedural information and the availability of support. Several authors state that students are more likely to conform to a code of conduct that is student led and takes into account their views (Bray & Del Favero, 2004; Caboni et al., 2004; Nilson & Jackson, 2004; Sorcinelli, 1994; Young, 2003;).

Hernandez and Fister (2001) caution that although rebellious and escalating incivilities need to be addressed through disciplinary action, incivility precipitated by emotional distress may require consultation with counselling staff and teachers need to be equipped with the skills to differentiate between these differing needs.

Pearson et al. (2001) reported that workplace incivility has deleterious effects on individuals and organisations. Because universities are places where people work and study, the authors’ research underscores the importance of interrupting the spiral of incivility before it escalates into violent behaviour. According to Feldmann (2001), teachers are not only ethically bound to provide a safe teaching and learning environment but they must also protect themselves and others. He further contends that administrative policies and procedures such as those that provide adequate sanctions to deal with classroom incivility might prevent acts of incivility from occurring and thus may improve the overall teaching and learning environment. Similarly, Ehrman (2005) suggests that university programmes must have administrative support policies to address inappropriate student conduct.
Addressing the issue of student incivility is crucial. It is equally important however that attention is also given to tackling teacher incivility. Although students have been identified as primary observers of teaching role performance there appear to be few mechanisms in place for formally reporting teaching improprieties except in the most grievous of circumstances. Braxton and Bayer (2004) highlight the fact that policies and practice have been largely confined to addressing student behaviour and recommend that another means of addressing commensurate problems is through institutional establishment of a code of conduct in relation to teaching. Bayer (2004) also suggests that student handbooks would be enhanced by the inclusion of procedures for students in dealing with incivilities perpetrated by teaching staff.

2.8 Conclusion

In this chapter it is demonstrated that incivility in higher education classrooms is a complex issue and one that is only recently emerging as an area for discussion and reporting within published literature. It is apparent from reviewing studies and accounts of incivility in this arena that both teachers and students across a variety of disciplines are experiencing increasing levels of problematic behaviour. The majority of research is located within the USA, however acknowledgement is given to the fact that incivility in higher education is internationally problematic.

Models of incivility have been proffered that offer direction for prevention and management. The literature identifies a range of behaviours that range from minor to those that threaten personal safety. More recent research has focused on the causes of incivility, recognising that lecturers and students are equally responsible as instigators and emphasis is given to the educational, sociological, economic and interpersonal factors that influence classroom behaviour.

The negative effects of incivility on teaching and learning and the physical, emotional wellbeing of students and teachers highlights the need for further research in this area and the importance of addressing incivility as an area of concern within higher education classrooms. Furthermore, teachers need support in recognising the role that they have in the interactional process of incivility and in dealing with classroom disruption.
As no published literature related to classroom incivility within UK higher education was identified, this exploratory study will ascertain the prevalence and types of incivility that exist within this context. It is envisaged that this will confirm anecdotal and media reports of the presence of incivility within a UK higher education context and add to the existing international perspective. Furthermore, as it has been recognised that lecturers and teachers are partners in the generation of classroom incivility and therefore teacher-student interactions and their relationship with incivility will also be a focus within this study. The theoretical framework of learning environments will be utilised to examine a potential contributory cause of students' classroom incivility

2.9 Chapter summary
This chapter has identified areas of prior scholarship related to classroom incivility within higher education classrooms. Specifically, definitions, models and types of incivility have been ascertained and the effects of classroom incivility on students and lecturers have been deliberated. The literature review has identified no existing primary research that addresses the issue of student incivility within a UK higher education classroom context despite anecdotal and media reports of its presence. Moreover, extensively published literature ascertains the perceived negative impact of classroom incivility on higher education teaching and learning from an international perspective. These findings therefore highlight the need for UK based research within this subject area.
Chapter 3 Methodology

3.0 Chapter outline
This chapter will address issues of epistemology, method and methodology that are pertinent to this study. In particular the appropriateness of the use of mixed methods enquiry will be considered in detail, to include paradigm and design concerns. The specialised area of learning environments research will also be discussed with relevance to data collection and the use of a classroom environment instrument, the Questionnaire on Teacher Interaction.

3.1 Disciplinary epistemology
My current role is that of Senior Lecturer within a Faculty of Health and Social Care, across a range of professional programmes and predominantly within the discipline of nursing (see Section 1.1.) Nursing is largely described as having traditionally conceptualised knowledge within the positivist model of science (Black 2001) and seems to prefer linear models of knowledge representation (McCourt 2005) in order to discover phenomena that can explain the relationship between health and illness (Vinson 2000).

The epistemological tension between defining knowledge as ‘discovered in the world and therefore problem solving and empiric or knowledge that is created in the mind and therefore process-oriented and interpretive’ (Roy 2006, p. 8) seems to be still quite central to nursing. As Meleis (2007, p.489) observes, the effects of empirical positivism or ‘the received view’ as she calls it have lingered longer in nursing than in other disciplines. This long-term legacy of empirical positivism is also referred to by Kim (2006, p. 181) who remarks that in the literature there seems to be an ‘enduring commitment to the positivistic modes of inquiry’ and while nursing is developing new models for knowledge creation and working towards an integrated epistemology, the ‘empirical and positivistic orientation [...] is still quite dominant in the knowledge development’ of nursing (Kim, 2010, p. 56).

However, although nursing seems to have been considerably influenced by positivism, it has in the past few years started to advocate for a more contextualised approach to its practice (Black 2001; Reed 2006). In addition, it is
seen as having shied away from intuition to seeking to reaffirm its knowledge base primarily on clinical, conceptual and empirical knowledge. However, Reed (2006) emphasises the humanistic aspects of nursing and refers to it as an art. Kim (2010) conceptualizes nursing as a combination of both science and art, equally informing the discipline in its knowledge and practice bases. She explains this combination as “nursing science being its knowledge base and nursing art being its base for practice” (Kim 2010, p. 44). This blending of positivistic and interpretivist approaches to informing professional nursing practice and education is also described in relation to the use of mixed-methods approaches to research which is an approach increasingly being utilised within nursing research.

3.1.1 Ontological and epistemological position within this thesis
The ontological (all-encompassing way of thinking about the world) and epistemological (the nature of knowledge and knowing) position adopted in this thesis is that of a 'philosophy of free choice' approach (Dewey 1933/2013). As will be seen, this philosophical approach permeates both methodology (mixed method) and method (use of the QTIHE and semi-structured classroom observation). It is worth noting that Dewey, critical of the dichotomous nature of traditional epistemological stances preferred to shun the use of such terminology and instead make reference to ‘the theory of enquiry’ (Dewey 1933/2013).

Advocates of quantitative and qualitative research paradigms have long engaged in ardent dispute. From this debate, purists have emerged on both sides. Quantitative purists articulate assumptions that are consistent with what is commonly called a positivist paradigm. That is, quantitative purists believe that social observations should be treated as entities in much the same way that physical scientists treat physical phenomena (Punch, 2005). Further, they contend that social science enquiry should be objective and that researchers should remain emotionally detached and uninvolved with the objects of the study (Crotty, 2005). Qualitative purists reject what they call positivism. They argue that context-free generalisations are neither desirable nor possible and that it is impossible to differentiate fully causes and effects and that these conventions are consistent with a constructivist paradigm (Lincoln & Guba, 2000; Schwandt, 2000). Lincoln & Guba (2000)
explicitly refer to these two approaches as two competing paradigms with distinct underpinning epistemological stances.

Both sets of purists view their paradigm as the ideal for research and advocate the *incompatibility thesis* that posits that quantitative and qualitative research paradigms, including their associated methods cannot and should not be mixed (Johnson & Onwuegbuzie, 2004). According to Sandelowski (2000) and Hall (2013) because different paradigms entail contradictory ontological and epistemological assumptions that combinations at the paradigm level are not true reconciliations, they remain distinct from each other and it is not possible to merge them. This view is also held by Morgan (2007) who states that when paradigms are viewed as epistemological stances that this then has a major influence on discussions about whether the merging of qualitative and quantitative methods is possible or desirable. It is suggested however that such a paradigm combination may be used to elicit different perspectives on the same target phenomena (Morse, 2010) or for complementary purposes (Sale et al. 2002). Symonds & Gorard (2010) offer an epistemological rationale for mixed-methods research, which states that all singular methods can be classified under one of two succinct paradigms (quantitative and qualitative) and that elements from each of these paradigms can co-exist in a single study. However, they suggest that a third category is needed to refer to studies which use elements of both and this category should be in itself a third paradigm.

Schwandt (2000, 2006) has called into question the need for division or differentiation of qualitative and quantitative enquiry. He argues that it is highly questionable whether such a distinction is meaningful in helping us to understand the purpose and means of human enquiry. Johnson et al. (2007) agree with this stance, stating that antagonism between paradigms is unproductive. The issue of paradigms within the context of mixed-methods research is clearly problematic and requires further examination.

Thomas Khun (1962/1996) is directly responsible for the popularity of paradigms as a way of summarising researchers’ beliefs about their efforts to create knowledge. A paradigm has typically been referred to as ‘the consensual set of beliefs that guide a field’ and ‘as influencing how researchers select research questions and
the methods used to address them’. (Morgan, 2007: p.49). In response to the issue of paradigm incompatibility, in mixed-methods research it is suggested that there are three suggested stances that researchers can adopt (T Teddlie & Tashakkori, 2008). Firstly, the a-paradigmatic stance sidesteps the paradigm issue by claiming that research methodology is independent of epistemology and that in most cases researchers proceed with a particular method without regard to their paradigmatic position. Secondly, the multiple-paradigm stance claims that researchers can draw on more than one paradigm in their research, namely the complementary strength thesis (Teddlie & Tashakkori, 2008), keeping methods separate so as to draw on the strengths of each (Morse, 2010). Finally, the third paradigmatic position is the single paradigm approach where researchers adopt one paradigm that encompasses both qualitative and quantitative research methods.

The ‘philosophy of free choice’ has been advocated as the most appropriate epistemology for mixed-methods (Symonds & Gorard, 2010) and an alternative philosophical position that supports mixed methods research as a third paradigm (Johnson & Onwuegbuzie, 2004, Johnson et al., 2007; Macxy, 2010; Tashakkori & Teddlie, 2010). Morgan (2007) refers to this alternative single paradigm as a pragmatic approach thus purposefully avoiding the concept of pragmatism as emphasising a particular epistemological stance. Instead a philosophical approach is adopted that permeates the methodological position and in terms of the methods used allows us to take account of the importance of both measurement and meaning in terms of empirical findings. The position adopted in this thesis is that of a pragmatic approach and as stated above rejects embarking upon the study from one favoured epistemological perspective and as such reflects the view that:

‘A major reason that pragmatism is the philosophical partner for MM [mixed-methods] is that it rejects the either-or choices from the constructivism-positivism debate. Pragmatism offers a third choice that embraces superordinate ideas gleaned through consideration of perspectives from both sides of the paradigms debate in interaction with the research question and real-world circumstances.’ (Teddlie & Johnson 2009: p73).
What then distinguishes the pragmatic researcher from the paradigm-oriented one is that in the paradigmatic vision of the world the former is more interested in ideas and their origins (that is in the ideas that drive the research and the ideals upon which research should be founded). The concern of the pragmatist is more to open up the world to social enquiry and hence to be less purist in terms of methods and preconceptions about theory. Such researchers are oriented to the production of research results that they seek to link to practice (Hammersley, 2000), that which Tashakkori (2006) refers to as a ‘bottom up’ perspective. Pragmatism therefore offers a logic that focuses on the use of a combination of methods that best frame, address and provide answers to the research question (Jones 2004). In adopting a pragmatic approach to the acquisition of knowledge it is possible to reject what Bernstein (1983) refers to as the ‘tyranny of method’ whereby the epistemological is allowed dominance over the practical. Within this study adopting a pragmatic approach is justified in addressing an issue that is perceived to be problematic (classroom incivility) within a particular community of practice (higher education teaching).

In the context of research activity, different modes of reasoning are often aligned to particular methodological paradigms. Deduction (objectivity/generality) and induction (subjectivity/context), too often seen as discrete and isolated entities, are in fact circular and reciprocal. Adopting a broadly deductive approach, based on the principles of scientific method, would lead one to try to establish the ‘truth’ of a hypothesis or to test a particular theory. If one were attempting to develop a new theory, an inductive approach would be adopted. However, it is perhaps accepted that, ultimately, both lead to the other at some point. Pragmatism asserts that either method of reasoning is applicable depending on what it is you want to find out; the ultimate test of the approach lies in its functionality. If deduction gets us to where we need to be then this is fine, likewise with inductive approaches. Mixed-methods uses both deductive and inductive reasoning (Krathwohl 2004), moving from grounded results (observations/facts), through inductive inference to general inference, through to deductive inference to predictions to the particular. This explicitly cyclical process represents the mixed-methods response to the inductive/deductive dichotomy and renders it fruitless. The reciprocal nature of these processes is encapsulated well in the notion of abduction (Haig 2008) where
either process, allows the researcher to adapt and adopt new and different methods. The abductive process is familiar to researchers who combine qualitative and quantitative methods. In this study the existence and prevalence of student classroom incivility within a UK higher education context is established through classroom observations (Deduction). In addition, an existing learning environments instrument (QTI) is psychometrically evaluated and modified (QTIHE) to establish students’ perceptions of their perceived interactions with teachers which are then correlated with levels of incivility within their classrooms to establish a ‘causal’ factor (Deduction). Furthermore, classroom observations are used to establish ‘patterns that begin to contextualise student incivility (Induction).

Thus a pragmatic rationality will more readily embrace a mix of methods if the research questions and practicalities of the research context suggest it (Hall 2013). In this case the exploratory nature of addressing student incivility in higher education classrooms is ideal for adopting this pragmatic approach. There is a pre-existing corpus of internationally published literature on classroom incivility in higher education that can be drawn upon to establish its existence and prevalence within a UK context. However, this study gave an opportunity to further explore the issue of the influence of student-teacher interactions on the level of classroom incivility and also to begin to contextualise incivility. Therefore, the reasoning for utilising a mixed methods approach within this study is that of an exploratory and complementary purpose: to examine, using quantitative and qualitative methods (use of semi-structured classroom observations) and explain using quantitative methods (use of the QTIHE) student classroom incivility in higher education classrooms within a UK context. This rationale is further elaborated upon in Section 3.1.2.

3.1.2 Mixed-methods research and learning environments. Traditionally quantitative research methods have been utilized within the field of learning environments research. The learning environment in formal educational settings can be described as the tone, ambience, culture or atmosphere of a classroom or school (Fraser 2001; Logan, Crump, & Rennie, 2006). A few researchers have attempted to measure classroom learning environments objectively in terms of behavioural frequency counts but more often the classroom
environment is measured using learning environment scales. Recently, significant but limited progress has been made towards combining quantitative and qualitative methods within the same study on classroom environments (Crump & Rennie, 2004; Kankkunen, 2001; Thomas and Mee, 2005). This research enquiry contributes to this development and explores an aspect of students’ classroom incivility in higher education through use of a learning environment theoretical framework (utilising the QTIHE) within a mixed methods approach.

3.1.3 Definition of mixed methods research

As discussed in section 3.1.1 mixed methods research is a research design with philosophical assumptions as well as methods of enquiry (Creswell & Plano Clark, 2007). For some writers mixed methods research has come to be seen as a distinctive research approach in its own right (Bryman, 2006). The term mixed methods research (Creswell, 2013; Tashakkori & Teddlie, 2010) has become the most popular phrase to describe a movement that has also been called blended research (Thomas, 2003), integrative research (Johnson & Onwuegbuzie, 2004), multi-method research (Hunter & Brewer, 2003; Morse, 2010), multiple methods (Smith, 2006) and mixed research (Johnson, 2006; Johnson & Christensen, 2004). Mixed methods research has been given several definitions that include: “the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches or concepts in a single study” (Johnson & Onwuegbuzie, 2004, p.17) and “research in which the investigator collects and analyses data, integrates the findings and draws inferences using both qualitative and quantitative approaches or methods in a single study” (Takkashori & Creswell, 2007, p.4).

Following analysis of several definitions by current leaders in the field of mixed methods Johnson, Onwuegbuzie and Turner (2007) also offer the following general definition:

> Mixed methods research is the type of research in which a researcher combines elements of qualitative and quantitative research approaches eg. Use of qualitative and quantitative viewpoints, data collection, analysis,
inference techniques for the broad purpose of breadth and depth of understanding and corroboration. (Johnson et al., 2007, p.123).

Bryman (2007) and Johnson and Onwuegbuzie (2004) further develop the integration concept within mixed methods research by stressing that the key issue in a mixed methods study is that the end product is more than the sum of the individual quantitative and qualitative parts and that findings must be integrated at some point.

Whilst some researchers have expressed concerns that a mixed method approach is opportunistic eclecticism (Brannen, 2003), a current trend with a potentially detrimental effect on quality research (O’Caithan, Murphy, & Nicholl, 2007), is time consuming and requires knowledge of a range of research methodologies (Johnson & Onwuegbuzie, 2004) the majority of the literature supports the development of mixed methods enquiry within research practice.

Researchers have increasingly used mixed methods techniques to expand the scope of and deepen insights from their studies (Sandelowski, 2000) and gain a better insight into the constructs that are being explored (Greene, 2008). According to Johnson and Onwuegbuzie (2004) a key feature of mixed methods research is its methodological pluralism or eclecticism that frequently results in superior research compared to a mono-method approach. Reliance on a mono-method approach can limit the breadth or depth of data and ideas while utilising mixed methods to examine a phenomenon enables the researcher to gain perspective and nuance (Scott et al., 2007). Johnson and Turner (2003, p.17) use the term “the fundamental principle of mixed methods research” which draws on the strengths and minimises the weaknesses of both qualitative and quantitative research approaches and also allows researchers to match design components that offer the best chance of answering their specific research questions. In addition mixed methods research can be used to enhance the interpretation of significant findings in research (Onwuegbuzie & Leech, 2004) and provide a comprehensive approach to complex studies (O’Caithlin et al., 2007; Phelps & Hase, 2002; Sale, Lohfield, & Brazil, 2002;) by examining, explaining, confirming, refuting and enriching
information from a quantitative approach with that from a qualitative approach (Kanbur, 2005).

A mixed method way of thinking rests on assumptions that there are multiple legitimate approaches to social enquiry and that any given approach is inevitably partial and therefore a better understanding of the multifaceted and complex character of social phenomena can be obtained from the use of multiple research approaches (Greene, 2008). Scott et al. (2007, p.265) extol the value of mixed methods in providing “a picture of a phenomenon with both a wide lens and fine-grained detail”.

3.1.4 Rationale for a mixed methods research approach

The importance of providing a rationale for combining quantitative and qualitative methodologies within a study has been increasingly highlighted within the literature on mixed methods research (Bryman, 2006; Niglas, 2004). Bryman (2006), in reviewing published mixed methods research, identified that there is a tendency for the rationales for using mixed methods enquiry not to be overtly stated. Researchers are therefore encouraged to be explicit about the grounds on which this approach is conducted. Sandelowsiki (2000) identifies three distinct purposes of mixed methods enquiry: triangulation to achieve or ensure corroboration of data, complementary to clarify, explain or fully elaborate the results of analysis and development to guide the use of additional sampling and data collection techniques. In addition Greene (2008) includes two further categories: firstly initiation, the discovery of contradictions that lead to the reframing of a research question and secondly expansion, seeking to expand the breadth and range of an enquiry by using different methods for different enquiry components.

The rationale for utilising a mixed methods approach within this study is that of an exploratory and complementary purpose: to examine, using quantitative and qualitative methods and explain using quantitative methods, student classroom incivility in higher education classrooms. Firstly, utilising semi-structured classroom observation, a quantitative phase identifies the prevalence of incivility whilst simultaneously, a qualitative phase gives context. This will address the fact that no published literature related to the prevalence or types of classroom incivility within a
UK higher education context has been identified. A further quantitative phase utilising the QTIHE gives insight into explaining why incivility occurs with emphasis on students' perceptions of their interactions with teachers. This phase will aim to support existing published evidence that links student-teacher interactions and levels of classroom incivility. A mixed-methods purpose statement is also offered in section 1.3.

3.1.5 Mixed-methods research design
The design of a mixed methods study follows directly from the identified purpose for mixing, because different purposes call for different methods of mixing, different priorities or weights allocated to different methods, different interactions among the methods during the course of the study and different sequences of implementation. These are the primary dimensions of mixed methods design that have emerged as important so far in the developing theories of mixed methods enquiry (Greene, 2008).

Some authors suggest that there are relatively few guidelines about how, when and why different research methods might be combined (Maxwell & Loomis, 2010) and that there is little understanding of the prevalence of different combinations (Niglas, 2004). Tashakkori and Teddlie (2010) however have advanced important ideas about the mixing of methods and methodologies at different stages of the inquiry process. They and other authors (Sandelowski, 2000; Johnson & Onwuegbuzie 2004) have suggested that mixed methods studies can be integrated at the objectives, research question, sampling, data collection, data analysis or data interpretation phase.

Teddlie and Tashakkori (2008), and Creswell (2007) further identify more specific subtypes of mixed method designs based on whether qualitative and quantitative data is collected sequentially or concurrently. Sequential data collection involves different procedures than that of concurrent data collection. Sequential data is collected in stages and each stage may influence the research question or data collection of the subsequent stage. Data analysis begins before all the data is collected. Furthermore a quantitative method can facilitate the sampling strategy for a qualitative method and a qualitative method can explain underlying relationships
in a quantitative study. A qualitative method can generate a hypothesis for a quantitative method to test or establish the theoretical framework for quantitative study (O’Cathain et al., 2007).

In a concurrent form, data is collected during the same time frame and qualitative and quantitative data are independent of each other. Data analysis typically occurs after all the data is collected (Onwuegbuzie & Teddlie, 2003). Similarly, Johnson and Onwuegbuzie (2004) make reference to two major types of mixed methods research. Mixed-model entails mixing quantitative and qualitative approaches across the stages of the research process whilst mixed-method involves the inclusion of a quantitative phase and qualitative phase in an overall research study.

The structure of this enquiry is concurrent: a quantitative data collection phase complemented by a simultaneous qualitative data collection phase during the process of semi-structured classroom observation. Further quantitative data is gathered utilising the QTIHE within the same time frame. Integration then takes place at the data analysis and reporting of results stage of the study. This process is further detailed in section 3.3 of this chapter.

3.1.6 Aims and research questions.
A strong mixed methods study starts with a strong mixed methods research question or objective (Tashakkori & Creswell, 2007). Numerous scholars have reiterated the fact that research questions are shaped by the purpose of the study and in turn inform the methods and design of the investigation (Bryman, 2007; Brewer & Hunter, 2005; Creswell & Plano Clark, 2007; Krathwohl, 2004). The pragmatic approach that focuses on the use of a combination of methods that best frame, address and provide answers to the research question has been addressed in more detail in section 3.1.1). Despite this clear importance, the attributes of strong mixed methods research questions have remained relatively unexplored by mixed methodologists and are still in the initial stages of being explored by mixed methods writers such as Creswell and Plano Clark (2007). Whilst current studies reflect the use of multiple research questions for qualitative and quantitative strands of the research, more recent thinking calls for an explicit mixed methods aim in addition to separate qualitative and quantitative research questions (Tashakkori &
Creswell, 2007). Teddlie and Tashakkori (2008) also raise questions about whether only quantitative and qualitative questions should be written or whether a single mixed methods aim should be composed that transcends the subsequent qualitative and quantitative sub-questions.

The title and aim of this study, ‘An exploratory mixed-methods study of student incivility in higher education classrooms’ reflects a mixed methods aim in that both quantitative and qualitative methods can be used to address this research question. The specific aims of the study are to describe the prevalence and types of student incivility within higher education classrooms within a UK context and to examine the relationship between students’ perceptions of student-teacher interaction and the incidence of student incivility in UK higher education classrooms.

The following research questions are addressed in this study
RQ 1. What is the prevalence of student incivility in UK higher education classrooms?
RQ 2. What types of student incivility occur in UK higher education classrooms?
RQ 3. What is the relationship between students’ perceptions of student-teacher interaction and classroom incivility in higher education?

3.2 Multi-case study design
The research design employed in this enquiry is that of a multi-case study. There are many definitions of case study that vary in purpose and between disciplines. Stake (1995) emphasises the importance of singularity, particularity and draws on naturalistic research methods. In contrast a more flexible definition is proposed as “An in-depth exploration from multiple perspectives of the complexity of a phenomenon within a real life context” (Simons, 2009, p.23). In describing the characteristics of a case study a definition is offered as “An empirical inquiry about a contemporary phenomenon set within a real-world context especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2009, p.18).

Case studies can be used in many situations to contribute to knowledge of individual, group and organisational phenomena. Case study has evolved as an approach to research that can capture rich data giving an in depth picture of a
bounded unit (Hamilton and Corbett-Whittier, 2013). It is particularly useful when boundaries between phenomenon and context are not clearly evident. Case studies aim to capture the complexities of relationships and attitudes and can be used to describe, explore and explain. Yin (2009) identifies situations when case study is an appropriate choice of design and these include determining the type of research question that the study is trying to address. Accordingly, case studies are pertinent when the research addresses descriptive, what is happening? or exploratory, why is it happening? questions (Yin, 2009). Moreover, by emphasising the study of a phenomenon within its real world context, the case study design favours the collection of data in natural settings. It is clearly pertinent therefore to apply the use of this design in the study of the phenomena of incivility and its relationship to student-teacher interactions within the context of higher education classrooms.

The in-depth focus of case studies emphasises the desire to cover a broad range of contextual and complex conditions and therefore goes beyond the study of isolated variables (Yin, 2012). The relevant case study data is therefore likely to come from multiple sources of evidence and utilise different forms of data collection. Traditionally, case study design has taken place within the qualitative paradigm (Stake, 1995) or within quantitative method to generate focus for a qualitative study. Increasingly however this design is used within a mixed-methods approach (Hamilton and Corbett-Whittier, 2013) to generate a rich and valuable in-depth understanding of the case. Within this research, case study design is utilised within a mixed-method approach.

Multiple-case designs have distinct advantages in comparison to single-case designs. The evidence from multiple cases is often seen as more compelling and the overall study is therefore regarded as more robust (Yin, 2012). Multiple-case studies allow for replication; that is each case must be carefully selected so that it either predicts similar results, a literal replication, or predicts contrasting results for anticipatable reasons. Within this study it was envisaged that the use of multiple cases would enable both similar and contrasting results to be identified within and between cases.
Yin (2012) describes each case as a holistic unit of study; however within each case there may be embedded units of analysis. The diagram from Yin (2012) shows the basic types of case study design. Four cases are included in this study; each case has two embedded units of analysis. The units of analysis in this case are semi-structured observation of classroom incivility and students’ perceptions of actual student-teacher interaction.

![Diagram of basic types of designs for case studies](source: COSMOS Corporation)

**Figure 1. Basic types of designs for case studies (Yin, 2012)**

Each case consists of a group of undergraduate students within a higher education classroom context. The four cases were drawn from the same higher education institution across two faculties (Health and Social Care and Arts and Sciences). There are specific inclusion criteria for each case as detailed below (Figure 2). Case 1 consists of a large group of undergraduate students studying for a non-professional award. Case 2 consists of a large group of undergraduate students studying for a professional award. Case 3 consists of a small group of undergraduate students studying for a professional award and Case 4 consists of a small group of undergraduate students studying for a non-professional award.
Students studying for an undergraduate non-professional award

Large group of students

Taught by at least four different teachers over the period of the study

Students studying for an undergraduate professional award

Large group of students

Taught by at least four different teachers over the period of the study

Students studying for an undergraduate professional award

Small group of students

Taught by at least four different teachers over the period of the study

Students studying for an undergraduate non-professional award

Small group of students

Taught by at least four different teachers over the period of the study

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<td>Large group of students</td>
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<td>Taught by at least four different teachers over the period of the study</td>
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Figure 2. Inclusion criteria for each case

All cases include groups of students that are taught by at least four different teachers over the period of the study. This enables analysis of student incivility in classrooms with the same group of students and different teachers. Kearney et al. (1991) first identified in the literature that the teacher may be a primary determinant of incivility in higher education classrooms. Cohen, Mannion and Morrison (2011) propose that one method of gathering more reliable data is by tracking a group of students “as it has been suggested that students will behave differently for one teacher than another” (Cohen et al., 2011, p.464). Furthermore, after conducting a five year study of classroom incivility within a higher education setting, Boice (1996) and later Golish and Olson (2000) and Clark (2008) reinforced the significance of student-teacher interaction in the initiation of student incivility and therefore student incivility may vary when perceptions of their interactions with teachers differ.

Cases that include both large and small class sizes are included as Burke et al. (2014) and Hirschy and Braxton (2004) suggest that large class size might be related to increased incidents of disruptive behaviour whilst Carbone (1999) established that large classes have poorer attendance, more cheating and
increased off-task behaviour. Furthermore, Cooper and Robinson (2000) recognised students’ concerns regarding an increase in noise and distraction in bigger groups. Alberts et al., (2010) and Swinney et al., (2010) both reported studies that identified higher levels of incivility in larger classes of undergraduate students. It is difficult to define large class size, however studies have reported that in classes with more 50 students (Alberts et al., 2010; Cuseo, 2007) and more than 80 (Bandiera, Larcinese, & Rasul, 2010) that class size has an impact on student achievement, teaching, learning and retention. The authors define these as ‘large classes’. For the purpose of this study classes of more than 50 students are included in Cases 1 and 2 and less than 50 in Cases 3 and 4.

Cases include groups of students studying for either a professional or non-professional award. Although it is difficult to ascertain from the literature if the prevalence of student incivility is greater in one type of award than another, studies have identified classroom incivility within other specific academic areas such as nursing (Clark & Springer, 2007), social work (Ausbrooks, 2011), geography (Alberts et al., 2010) and accounting (Swinney et al., 2010). Furthermore, professionalism requires courtesy, mutual respect, self-restraint, and fairness (Zeff, 2003). These character traits necessary for professionalism all relate to how we interact with others and can be included under the umbrella virtue of civility. There is an expectation therefore that students studying on a professional programme would exhibit lower levels of classroom incivility.

Within the introductory section of this thesis, and when stating the rationale for undertaking the study, it has been identified that incivility was observed amongst students studying for the professional award of nursing and that this raises some concerns (Section 1.1). Secrest, Norwood & Keatley (2003) point out that in any profession, the development of a professional identity is crucial. Within nursing education, students are preparing to enter the health care environment and this preparation takes place within various contexts including the higher education classroom. These students often identify with their peers in these settings adopting the values and beliefs espoused within them. These values and beliefs may be counter to those endorsed by the profession itself or the academic institution where the student is educated (Secrest et al., 2003). Within nursing students the concern
identified was that students involved in incivility in the higher education context might transfer these behaviours into the professional practice arena. In addition, as students of nursing they are bound by a professional code of conduct (NMC, 2015), an ethical and moral code that sets standards for nursing conduct. This raises questions regarding students who engaged in uncivil behaviour and their ability to adhere to the professional code of conduct. It could be suggested that by being uncivil that they fail to embrace the professional values of the nurse. Kenny (2007) argues that students engaging in uncivil behaviour lack the values and standards required by the nursing profession and are likely to continue to behave unethically in their nursing practice. She assumes that behaviour in the classroom has the potential to translate to behaviour at the bedside (Kenny, 2007). Randle (2003) used grounded theory as a framework to support this premise. She found that the “process of becoming a nurse was a distressing and psychologically damaging one” and students often encountered incivility within both nursing practice and academia (Randle, 2003, p. 397) and yet, these same students were reported as adopting the same uncivil behaviours as they became socialised into the profession.

Therefore, for the purpose of this study students studying for a professional award that of nursing, are included in Cases 2 and 3 and those studying for a non-professional award are included in Cases 1 and 4. This enabled a comparison to be made between the frequencies of student incivility between students who are studying for a professional award and those who are not.

3.3 Data collection
Within this study the method of data collection was that of mixed-methods. Quantitative data was collected utilising the classroom environment instrument the QTIHE and both quantitative and qualitative data gathered using semi-structured classroom observation. As the sole researcher collecting data and working within the organisation where the study took place, issues related to the role of the lone researcher and the insider-researcher are discussed in further detail in Section 3.3.3 and Section 7.3. A multi-case study design was used and within each case students were asked to complete the QTIHE. Students completed the QTIHE at the end of each teaching session, that is students in each case were asked to complete
the QTIHE on four occasions. During the teaching session semi-structured non-participant observation took place. Data related to classroom incivility was recorded and described using field notes. In this way data on actual behaviour was collected rather than behaviour that had been self-reported in some way. The prevalence of uncivil behaviour during the session was recorded and classroom observation was covert in nature. As the observations progressed ‘patterns’ began to emerge that contextualised the uncivil behaviours and these were recorded in the field notes.

Students were not informed that they were being observed, however teachers were aware that observation was taking place. The focus of covert observation was confined to that of observing student behaviour. Although the literature highlights the problematic nature of teacher’s uncivil behaviour this aspect was not a focus of the study. Ethical approval for this research focused exclusively on the observation of students’ behaviour and the issue of covert observation will be further addressed in relation to ethical issues in Chapter 4, data collection in Chapter 7 and limitations in Chapter 11. Previous research has mostly recorded perceptions of the incidence of classroom incivility with only one longitudinal study reporting actual, observed levels (Boice, 1996). This study therefore aimed to confirm the presence of student incivility within a higher educational context through the process of observation. In addition data regarding the class that was being observed was collected and included class size, discipline and length of session.

3.3.1 The Questionnaire on Teacher Interaction
The QTI has been chosen for use within this study as the literature strongly suggests that student-teacher interaction is a crucial factor in the instigation of students’ classroom incivility (Boice, 1996; Clark, 2008; Cortina et al., 2001; Golsh & Olson, 2000; Kearney et al., 1991; Summers et al., 2009). More specifically, issues from the literature that students identified as being important within the interactive relationship such as understanding, admonishing behaviour and strictness are factors within the QTI.

The QTI, developed by Wubbels and Levy (1993) has been used internationally to measure students’ perceptions of student-teacher interaction within a compulsory, secondary education setting. There are few studies that have utilised the QTI within
a higher education environment (Coll et al., 2002; Coll et al., 2001; Coll & Fisher, 2000; Fraser et al., 2010) and no studies conducted in the UK that have employed the use of the QTI in either a secondary or higher education context. Psychometric evaluation of the QTI was therefore conducted to assess its reliability and validity. This process and the subsequent modifications to the instrument are reported in Chapters 5 and 6 and include extensive exploration of the reliability and validity of the QTI, modification and factorial changes. The resulting final version of the QTI was renamed the Questionnaire on Teacher Interaction in Higher Education (QTIHE) to reflect these changes. The QTIHE was then utilised in this exploratory study to collect quantitative data related to students’ perceptions of student-teacher interactions. Ethical considerations related to the collection of data utilising the QTIHE is further detailed in Section 4.4 and the contribution to research that this process has made is addressed in Section 11.2.1

3.3.2 Semi-structured classroom observation
Observation has been used extensively in research into classrooms (Good & Brophy, 1991; Wragg, 1994) and it is a valuable research method with its advantages and disadvantages having been well rehearsed in the literature (Bryman, 2012; Robson, 2011). The behaviours that were observed were drawn from a consensus of perceived uncivil behaviours found within the extant literature that has identified student behaviours that both students and teachers deem to be uncivil. Uncivil behaviours were also identified that had not previously been acknowledged and it is acknowledged that my interpretation of these behaviours as being uncivil is guided by previous encounters as an undergraduate student and current experiences as a lecturer within a higher education context (see Section 1.4.2). As observation progressed patterns that were perceived to be related to students’ uncivil classroom behaviour emerged and these were also recorded. The process of semi-structured observation related to this study is further detailed in Chapter 7.

3.3.3 The insider-researcher
As an insider-researcher, the opportunity arises to acquire ‘understanding in use’ rather than ‘reconstructed understanding’ and to turn familiar situations into objects of study. It is recognised that the insights gained as an insider are valuable due to
the depth of knowledge gained (Coghlan & Brannick, 2014). Costley et al. (2010) emphasise the benefits that professional experience can bring to insider research in that the wealth of experience and understanding amassed can provide a ‘rich vein’ of topics for research. Gray (2014) advocates that internal validity is enhanced when collecting observational research data if the researcher is able to display a sound knowledge of the organisation or context being researched. In this case my years as a lecturer within higher education raised awareness of the perceived problematic nature of students’ classroom incivility and an understanding of the field and context of study (see Section 1.1).

The researcher enters the field to collect data as an ‘insider’ whilst observing participants and the situated environment as an ‘outsider’. Finding meaning in the observable behaviours of others demands considerable introspection and within the perspective of this research the issue of classroom incivility and my encounters within a higher education context have been highlighted in the background to this study (see Section 1.1). Coghlan and Brannick (2014) emphasise that the advantages of being an insider-researcher is the holding of valuable knowledge related to the cultures and informal structures of the organisation and also access to its informal or private life. In practice this means knowledge of every day jargon, taboos and colleague’s concerns. Being familiar with the field of study also has the advantage of freeing the researcher from the process of having to seek contextual clarification.

However, there are disadvantages to being within the organisation where the researcher is conducting a study. Keegan and Lahey (2001) identified that insider-researchers have competing commitments and role conflict; the organisational role demanding total involvement and active obligation whilst the researcher role demands a more neutral, objective, observer position. The researcher may think that they know the answers to their research questions and therefore not expose their thinking to alternative reframing. It is apparent that when being involved in insider-research reflexivity on theoretical and methodological presuppositions is at all times required (Ferguson and Ferguson, 2001). Reference to aspects of reflexivity is given where appropriate throughout the thesis.
3.4 Data analysis

Data collection in this study follows a mixed-method concurrent design (Plano Clark & Creswell, 2008), integrating a multi-case study design (Yin, 2008). As no single established framework exists for analysing data within a mixed-methods case study design a model was devised to facilitate a structured approach and to clearly identify the points at which qualitative and quantitative data were integrated. Firstly, Creswell and Plano Clark’s (2007) two-stage concurrent data analysis procedure was deemed appropriate for the purpose of analysing data within this mixed-methods study (Figure 3).

Figure 3. Two stage approach (Creswell and Plano Clark, 2007)

Within stage one of this framework quantitative and qualitative data are separated, prepared, explored, analysed and the results represented in an appropriate format. Therefore, data from the QTIHE (Section 8.1) and data from semi-structured non-participant observation (Section 8.3) were analysed independently. In stage two quantitative and qualitative data are merged or compared. The results of the QTIHE were correlated with quantitative data from the semi-structured classroom observations (Section 8.5) and finally quantitative and qualitative data from semi-structured classroom observations was integrated (Section 9.8). This method of
analysing mixed-methods data was applied to a multi-case study design (Yin, 2009). As described above the units of analysis in this study are the QTIHE and semi-structured classroom observations. Analysis of data took place across three levels: within case, between case and across case.

Bryman (2007) and Johnson and Onwuegbuzie (2004) highlight the importance of the integration concept within mixed methods research by stressing that the key issue in a mixed methods study is that the end product is more than the sum of the individual quantitative and qualitative parts and that findings must be integrated at some point. This model for analysing data within a mixed-methods design clearly locates points of integration of quantitative and qualitative data within the analytical process. In this study quantitative and qualitative data was integrated at the analysis and reporting of results level as shown below (Figure 4).
Yin (2009) Multi case study design with embedded units of analysis

<table>
<thead>
<tr>
<th>Type of data analysis and integration points</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUANT = Quantitative data</td>
</tr>
<tr>
<td>QUAL = Qualitative data</td>
</tr>
</tbody>
</table>


**Within case analysis**

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis of quantitative data</td>
<td>Compare QTIHE (QUANT) and observational data (QUANT) for each class</td>
</tr>
</tbody>
</table>

**Between case analysis**

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis of quantitative data for each case</td>
<td>Analysis of QTIHE (QUANT) data across cases</td>
</tr>
</tbody>
</table>

**Across case analysis**

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis of quantitative data across cases</td>
<td>Merge data</td>
</tr>
</tbody>
</table>

**Figure 4. Mixed methods data analysis with a multi-case study design indicating points of data integration (INT).**

**Note.** Further discussion of data analysis is reported in detail in Chapter 8

### 3.5 Chapter summary.

This chapter has discussed and rationalised the use of a mixed methods approach and a multi-case study design within this exploratory research. The aims and specific research questions that are addressed within the enquiry are stated and
the specific methods of collecting both quantitative and qualitative data are detailed. Reflections on the role of the insider-researcher are also presented. Furthermore, a model for analysing data within a mixed methods approach utilising a multi-case study design is offered. To evaluate the quality of the mixed methods approach used within this research the framework of Creswell and Plano Clark (2007) is utilised and is located in Section 11.6 of this thesis.
Chapter 4 Ethics

4.0 Chapter outline

This chapter will discuss areas of ethical consideration within this exploratory study. The issues to be deliberated include consent, anonymity and confidentiality and relate to methods of data collection. More specifically, a critical argument to justify the use of covert research observation within this study will be offered with reference to relevant professional ethical codes in particular and the ethical literature in general. Discussion of methodological justification of the use of covert observation will be presented in conjunction with the researcher’s reflective views of the use of covert observation. Ethical concerns related to the insider researcher have previously been addressed in Section 3.3.3 and will be further addressed in Sections 4.4; 7.2; 7.3 and 7.4.

Institutional research ethical approval was granted 23rd January 2012 (Appendix 1)

4.1 Ethical considerations

When research is concerned with collecting data from people this inevitably raises concerns about the way in which those people are treated by researchers and, for the most part, are ethical in nature. Ethics can be defined simply as “the realisation of good and the struggle against bad” (Campbell 2003, p.9) or the “deliberation of moral perplexities” (Gregory, 2003, p.3). Ethics within a research context demand that the protection of human participants is imperative and that they should be treated with respect, should not be harmed in any way and should be fully informed about the research in which they are to be engaged (Orb et al., 2000).

Whilst it is therefore widely acknowledged that those undertaking research be fully aware of the ethical aspect of their study (Campbell, 2003; Johnson, 2003; Neville & Haigh, 2003) there is growing concern that the emphasis that is being placed upon the ethical and governance components of research within the UK may lead to untenable delays and the abandonment of research studies (Howarth & Kneafsey, 2003; Johnson, 2003) and that research is becoming increasingly regulated and hemmed in by ethical constraints (Haggerty, 2004). Moreover, covert research studies are increasingly being deemed to be unethically untenable and therefore inadvisable (Alston & Bowles, 2003).
4.2 The issue of covert observation

Ethical approval for data collection within this study consisted of two aspects. Firstly, ethical approval to collect data on students’ perceptions of interactions with their teacher utilising the QTIHE was requested and secondly ethical approval to conduct covert classroom observation of students’ uncivil behaviours.

Although literature exists in relation to ethical aspects of covert observation in social science research (Campbell, 2003; Gregory, 2003; Herrera, 1999; Herrera, 2003; Latvala, Vuokila-Oikkonen, & Janhonen, 2000) no available literature was located that relates specifically to ethical aspects of covert observation within a higher education environment or the higher education classroom setting.

Reliable assessment of the true level of disruptive behaviour in the classroom requires data to be collected with minimal bias. Non-participant observation, used extensively in research into compulsory primary and secondary education classrooms (Good and Brophy, 1991; Wragg, 1994), offers an opportunity to clarify and understand the nature of the problem first hand (Atkinson, Coffey, Delamont, Lofland, & Lofland, 2001; Elliot, 2001;) and it is appropriate in this study of student incivility in higher education. Actual behaviour in a study, as opposed to participants’ self-reported perceived behaviour, can only be guaranteed to be that observed within the participants’ natural habitat if the participants are unaware that they are being observed. Hence an unbiased study of human behaviour of necessity must be covert.

The literature on observation research widely recognises that researcher presence can affect participants’ behaviour (Bryman, 2012; Kirkup & Karrigan, 2000; Robson, 2011) and with relevance to this study, students may specifically be wary of being observed displaying behaviour that is viewed within a negative context or that may have disciplinary consequences. They may well adapt their behaviour to that which they assume may be expected of them, this would be a threat to the naturalism of the research. It appears therefore that the use of covert observation is an appropriate choice of method in this enquiry.
4.3 Arguments for and against the use of covert observation

The issue of covert research methods is often deemed unethical. Most of the literature regarding this observational research method concentrates on the epistemological-methodological relationship and the associated problems of research subjectivity and bias in overt participant observation (Bryman, 2012; Robson, 2011; Trochim, 2001). However, when covert research methods are considered in ethical terms the debate shifts from that of methodological validity to research morals including the invasion of privacy and informed consent. Critical of the use of covert methods, some ethicists argue that the purposeful misleading of subjects in research is no different from any other type of deception and that there are no circumstances under which the use of deception is permissible in a research study (Gregory, 2003; Lauder, 2003). Importantly however, Spiker (2011) differentiates between the use of covert research and deception: covert research being that which is not disclosed to the subject in contrast to deception where the nature of the research is misrepresented to the participants. In this exploratory research covert observation, no deception was employed, as students were not informed that observation was taking place.

Covert observation methods in research have been described as encroaching on participants’ rights to consent (Oliver, 2011), exploiting trust (Herrera, 2003) an imposition on the privacy and autonomy of participants (Herrera, 2003; Kirkup & Karrigan, 2000), and gross invasion of personal privacy (Lauder, 2003). However, advocates of covert research methods note that its use may be defended on the basis that it is potentially less disruptive than overt methods and allows data to be collected in its natural form, free from external influences and interference (Hoffman, 1999) thus improving the validity of the study (Oliver, 2011).

Arguments defending covert research usually follow utilitarian lines, whatever risks or harm covert methods might involve are offset by the benefits that follow from the research (Herrera, 1999; Johnson, 2003; Oliver, 2011; Wallen & Fraenkel, 2000). A view could then be taken on the benefits of this enquiry, weighing the contribution of the research against the chances and scale of harm (Murphy & Dingwall, 2001). In this case students suffer no harm and during observation behave as they would were they not being observed. In addition, the value of conducting this exploratory
study is emphasised by the perceived detrimental nature of its prevalence and impact detailed in Section 1.1, Section 2.6.1 and Section 2.6.2.

Other authors focus on the quality of the research data in advocating covert research methods. In covert observation the researcher disturbs the social ecology as little as possible (Oliver, 2011), and covert methodology mimics interaction that occurs naturally (Herrera, 1999) allowing the researcher to investigate by submerging him/herself in the subjective social reality of those being studied (Lauder, 2003) rather than research extrinsic to the social setting (Angrosino & Mays de Perez, 2000). Covert methods are also supported in studies where data could not have been collected in any other way (Oliver, 2011), where consent would compromise the object of the research (Economic and Social Research Council (ESRC), 2007) or where overt observation may alter the phenomenon being studied (ESRC, 2007) such as in the case of the study of classroom incivility in the higher education classroom.

How then does passive covert observational study impinge on the ethical tenets in the literature and professional ethical codes? The British Educational Research Association (BERA, 2011:14) Ethical Guidelines for Educational Research states that ‘Researchers must avoid deception or subterfuge unless their research design specifically requires it to ensure that the appropriate data is collected’. This principle is also stated in the British Psychological Society (BPS, 2009:1.3.xii) Code of Ethics and Conduct “avoid intentional deception unless deception is necessary to preserve the integrity of the research”. The British Sociological Association (2002) in their Statement of Ethical Practice state that ‘the use of covert methods may be justified in certain circumstances. For example, difficulties arise when research participants change their behaviour because they know they are being studied’. It could be assumed that students who are aware that they are being observed for behaviours that are deemed to be disruptive might not then exhibit those behaviours. This would then affect the validity of the data that is collected.

A well-known ethical principle is ‘first do no harm’ or non-maleficence (Herrera, 1999; Johnson, 2003). Lauder (2003) and Pettigrew et al. (2007) note that many social research studies do not result in immediate harm to the participants and
anxieties of the use of covert methods by researchers may be unfounded. The Economic and Social Research Council (ESRC) (2007) *Research Ethics Framework* defines risk in social science as pertaining to a person’s social standing, privacy, personal values and beliefs. When using covert research methods we must show that participants are not harmed by not giving their consent. Use of classroom observation in this study produces minimal harm. It could be argued that student incivility would occur even if the students were not being observed. On this basis covert observation may be deemed ethical (Wetherell, Taylor, & Yates, 2001).

Consequentialism is an ethical decision-making approach that believes that something is ethically acceptable if the consequences are good for the participants or society (Isreal & Hay, 2006; Oliver, 2011). This is linked to the ethical principle of beneficence; doing good for others, helping, improving and benefitting the individual (Orb et al. 2000). Cases for covert observation are often based on the fact that deception is justified on the grounds of the benefits of the research to others (Mulhall, 2003), that researchers use covert methods for the subjects’ benefit (Herrera, 1999) and that important issues of social significance are being addressed (ESRC, 2007). Lauder (2003) and the ESRC (2007) defend the use of deception on the basis of social benefits such as reducing violence or addressing other socially destructive behaviour.

In this case incivility within higher education classrooms has detrimental effects on teaching and learning and thus research addressing this issue could be classed as being socially advantageous. It is apparent that there is a need to assess the degree of uncivil classroom behaviour at all levels of the education process due to widespread apocryphal observations and concerns (Section 1.1). Furthermore, the negative impact of classroom incivility on both students and teachers has been stressed within the literature on classroom incivility (See Sections 2.6.1 and Section 2.6.2).

Johnson (2003) suggests that a detailed justification of how ethical problems were approached and dealt with, bearing in mind risk of harm and benefits overall, should suffice in dealing with ethical matters. This chapter addresses those issues.
In this study the recorded data comprised of behaviours without reference to individuals, thus removing any consequentialist concerns. If the data cannot be traced to individuals or particular classes and the observations are only expressed beyond the research observer as specified incivilities then the rights of the participants will not have been infringed other than having an additional passive participant in the classroom whose purpose and findings will never be revealed nor connected to the participants. Thus, according to Johnson (2003), covert observation can be ethically justified.

Many ethicists have provided guidance to researchers regarding participants. Murphy and Dingwall (2001) provide a useful point of reference in addressing ethical concerns by asking researchers to contemplate two primary considerations. Firstly a researcher needs to consider the rights of the participants (a deontological consideration) and secondly that the research study should not result in any adverse outcomes for the participants (a consequentialist consideration).

It is my belief that the application of ethical tenants as described above justifies the use of covert observation within this research as to conduct overt classroom observation would compromise the methodological validity of the study. If students are aware that they are being observed for behaviours that are considered to be uncivil they might not then display those behaviours. In addition, a rigorous literature review has emphasised students’ and teachers’ perceptions of the detrimental impact of uncivil classroom behaviour on both teaching and learning. Therefore, the potential benefits of exploring this issue to identify its prevalence and contributing factors outweighs any possible harm to participants who have had their rights to consent withheld. Finally, it is my view that in this study the presence of the researcher in the classroom poses no harm or threat to participants in that they will behave in the same manner as if they were not being observed. It is acknowledged that the presence of the researcher may impact on the behaviour of the lecturer who consented to data collection taking place within their class and this may in essence impact on the behaviour of the students, thus posing a possible negative impact on methodological validity. In order to reduce the potential threat to validity, lecturers were reassured that it was solely the students’ behaviour that was being observed and recorded.
4.4 Consent

Data in this enquiry was collected utilising the QTIHE and informed, consent was obtained from the participating students. A letter giving details of the study was attached to the front of the questionnaires (Appendix 12). The QTIHE Questionnaire was disseminated at the end of each class included in the study (see Section 3.2). Students were informed that they have the right not to participate and therefore return the questionnaire uncompleted. Issues related to the ethics of being an insider-researcher are addressed throughout the thesis (see Section 3.3.3; 7.2; 7.3; and 7.4) and specifically related to issues of power relations in Section 1.4.2. As data for two of the cases was collected within the faculty where the researcher was employed as a teacher there was the potential that the researcher was known within their teaching role by some of the students that were asked to participate within the study. It was therefore crucial to consider the position of the researcher being perceived as being in a position of power in relation to students and the implication for unintentional coercion. Moreover, due to the nature of the data being collected and the fact that in some cases this involved colleagues of the researcher, the need to ensure anonymity was deemed vital. Students across all cases were assured that they would not be identifiable from the completed questionnaires. In addition, students were guaranteed that the information from the QTIHE would remain confidential to the researcher.

As some of the teachers whose classes were observed were colleagues of the researcher collecting the data, additional reassurance related to the anonymity and confidentiality of data was required. Teachers were reassured that field notes from the observation would be anonymous and that no information would be included that would identify them as being the teacher that facilitated the class on that day. It was also reinforced that recordings from field notes would be kept safe and confidential and only viewed and analysed by the researcher conducting the study (Section 8.3). In addition, teachers were assured that data associated with students’ perceptions of their interactions with the teacher would be both anonymous and confidential.

In addition to self-reported perceptions of teacher interactions by students, classroom incivility was assessed impartially by covert observation. One ethical
The dilemma is that as part of the consent process which usually includes obtaining informed consent, advising the class that observation is being undertaken concerning their behaviour is likely to modify the very behaviours that are the subject of the research, thus influencing the results of the study. The ‘Hawthorne effect’ (Herrera, 1999) describes the possibility of bias that is present in a study due to changes in participant behaviour that are influenced by the fact that they are being observed; thus impinging on the effect of other variables that are being measured. Therefore, consent for observation was not sought from the students. At the beginning of each class, the researcher informed the class that at the end of the session they would be asked to complete the QTIHE. The researcher then sat at an appropriate location to collect data related to students’ classroom incivility utilising semi-structured observation. This process is further detailed in Chapter 7. The students were not informed that they were being observed and consent for observation was not obtained.

Permission to observe the class and obtain data on students’ perceptions of their interactions was obtained from the relevant teacher (See Section 7.4). A letter giving details of the study was given to each teacher and written consent was obtained (Appendix 13). As discussed above the role of the researcher as an insider has ethical implications related to issues of consent. As some of the teachers whose classes were observed were colleagues of the researcher collecting the observational data additional reassurance related to the confidentiality of data was required. The ethical issue of the insider-researcher using colleagues within the process of data collection is further discussed in Section 7.3.

Informed consent is the right of every individual participating in research and therefore is not a matter that can be ignored or denied to the individual (Behi & Nolan, 1995) and has become one of the major principles with which to evaluate the probity of a study (Johnson, 2003). Informed consent gives subjects control over their participation and an added degree of control over perceived risks (Herrera, 2003). The moral imperative states that before invading the integrity of others in the name of research we should seek their consent, has by extension and analogy informed the ethical codes governing the conduct of social sciences.
research (Campbell, 2003). Every code of ethics designed to guide research involving human subjects gives primacy to the requirement of fully informed consent including those relevant to this area of study (British Psychological Society 2009:1.3; British Educational Research Association 2011:10,14). Research therefore that is conducted on the basis of lack of consent requires compelling reasons to justify such a decision (Gregory, 2003). The justification will clearly lie in the value of the research.

4.5 Confidentiality and anonymity

It can be considered that the rights of participants in research should primarily focus on the right to privacy, the ability of an individual or group to seclude themselves or information about themselves, as well as the right to informed consent (Spiker, 2011). Privacy is related to anonymity, the wish to remain unnoticed or unidentified in the public domain and to confidentiality, ensuring that information is accessible only to those authorised to have access. Behi and Nolan (1995) state that in all aspects of the research process the rights of participants override the rights of science. The issue of privacy has become a major topic of debate in the public arena (Mohammed, 1999). Kirkup and Karrigan (2000) identify three types of privacy. Information privacy involves the expectation that certain personal information should not be divulged. Expressive privacy concerns freedom from coercion and accessibility privacy is “where physical closeness and private or public surveillance may lead to distraction, fear or inhibition” (Kirkup & Karrigan, 2000, p.471). Research can impinge on all three types of privacy. Daniels (1997) in questioning how legitimate privacy can be protected contends that there needs to be a distinction between aspects of privacy that are given up voluntarily and those that are removed without consent.

In this study the covert methodology represents no infringement of the participants’ three types of privacy. Firstly, information privacy is preserved by the unrecognisability of incivility data and anonymity of the QTIHE. Although conventional wisdom holds that researchers can prevent subjects from knowing that the research is taking place and can later disguise details when reporting their results, actual practice reveals that pseudonyms and other disguises can fail and people can later recognise themselves as subjects (Herrera, 1999). The long-term
consequence of this is identified by Johnson (2003) as a lack of trust that may outweigh the short-term benefits of the deception. Furthermore, participants may become disturbed merely by finding out that they were chosen for research if they view the subject of the research, in this case the study of classroom incivility, as deviant behaviour (Herrera, 1999). In this study questionnaires were anonymous and classes within the case studies were coded to ensure that they were not identifiable. Secondly, expressive privacy is preserved as covert observation is employed in this case and therefore avoids any coercion of behaviour. In addition, students were informed that non-completion of questionnaire would not result in detrimental consequences. Accessibility privacy is maintained as covert observation is employed in this case precisely to ensure an absence of distraction, fear or inhibition of behaviour and thus change students’ conduct.

It is the researcher’s responsibility therefore to ensure that anonymity is guaranteed (Kirkup & Karrigan, 2000). Pettigrew et al. (2007) in reflecting on the use of covert observation within their research identified that achieving and maintaining researcher anonymity also caused some concern. In order to address this issue, where possible observation took place away from areas where students were familiar with the researcher’s teaching role, in these classes students were therefore unknown to the researcher and vice versa. It is acknowledged however that in some classes the researcher may have been familiar to the students due to having a teaching role in the faculty where some of the data collection took place. Data collection from the classroom observations was non-identifiable thus consideration of all of these factors minimised the risk of participant recognition both during the data collection stages and in subsequent publication of research findings.

4.6 Conclusion of ethical considerations

In conclusion, some social scientists claim that methods which inspire research are being side lined by a ‘protectionist’ outlook (Tysome, 2006). They believe that covert research methods that yield information that could not be obtained by overt methods are under threat and are being seen as a type of last-resort methodology. McKenzie (2009) warns against condemning sound social enquiry on the misguided basis that overt research is always superior to covert studies because of
its ethical standards. Furthermore, Calvey (2008) regards covert techniques as being in danger of being ‘submerged’ as institutions and academics overreact to heightened concerns about ethics in research. He calls for a creative rethinking of professional ethics in social science to recover for future use the hidden tradition of covert research.

This study can only yield unbiased behavioural data if covert observation is employed. Data collection utilising covert observation involved recording only anonymous behaviours without reference to individuals or particular classes to minimise ethical concerns. The methodology treats the participants with respect and does not expose them to any potential harm or adverse consequences whatsoever. The participants were not deceived into any false belief about the classroom situation apart from the presence of a passive observer whose primary intention was that events should unfold in a manner identical to that which would occur if the observer were not present. The participants' privacy was preserved; no personal information was divulged and they were free from coercion, distraction, fear and inhibition from the covert observer.

4.7 Chapter summary
The process of Informed consent for QTI data collection has been outlined within this chapter. In relation to the collection of data utilising classroom observations, it is acknowledged that not obtaining informed consent is considered ethically problematic. However in it has been argued that collecting data in observational studies without the consent of the participants can be justified if informed consent would significantly bias the parameters to be measured and that the data to be gathered is of significant research value. This study is such a case. In addition, ethical frameworks have been utilised to debate the arguments for and against the use of covert observation in research. The role of the researcher as insider-researcher and its ensuing ethical issues have been addressed as appropriate within this chapter and in throughout the thesis. Finally, reference has been made to ethical codes of conduct that are pertinent to the field of research within this study.
Chapter 5 Psychometric evaluation and modification of the QTI

5.0 Chapter outline
This chapter describes the evaluation and modification of QTI for assessing undergraduate students’ perceptions of their teacher’s interpersonal behaviour within a higher education context in the United Kingdom. As no studies conducted either in the UK or within a higher education context that have employed the use of the QTI were identified in the literature review, psychometric evaluation of the QTI was necessary to assess reliability and validity prior to use within this exploratory study. Data was therefore gathered from 244 undergraduate students, using the Actual Version of the QTI.

5.1 The measuring instrument under study: The QTI
Since learning environments research began, a number of instruments have been developed for use across a variety of classroom contexts including the QTI. The learning environment in formal educational settings can be described as the tone, ambience, culture or atmosphere of a classroom or school (Fraser, 2001; Logan et al., 2006). The learning environment is considered to be important in its own right and influential in student learning and the importance of classroom learning environments has been increasingly recognised over the past twenty years (Shavelson & Seidel, 2006).

The assumption that there exists a learning environment that mediates both student interpersonal and educational development began as early as the 1930s when Lewin (1936) recognised that both the environment and the individual were powerful determinants of human behaviour. Building on the findings of Lewin, Murray (1938) identified a model of interaction in which personal motivation moves students in the direction of their goals, however an external environment also exists that either supports or frustrates those goals. Although Murray’s model of interaction was more applicable to the study of personality than the teaching-learning process it suggests that situational variables found in the classroom environment can account for behavioural variance. As a consequence, researchers have sought ways to identify the situational variables recognised within this model.
Based on Murray’s model Stern (1970) formulated a theory, which proposes that when personal and environmental needs are more congruent, student outcomes are enhanced. Furthermore, Getzels and Thelen (1960) describe the classroom as a social system and suggest that behaviour can be predicted from the interaction of personal needs, expectations and the classroom environment.

Walberg’s (1981) multi-factor psychological model of educational productivity proposes that the psychosocial learning environment is one of nine factors in student learning. This model suggests that learning is a function of student age, ability and motivation, of the quantity and quality of instruction and of the psychosocial environments of the home, peer group, classroom and mass media. Both school and classroom environment have been found to be strong predictors of achievement and attitude when other factors in the educational productivity model were held constant (Walberg, 1986).

In his research on human environments Moos (1979) found that three general categories can be used in characterising diverse learning environments. These findings emerged from Moos’ work in a variety of environments including hospital wards, school classrooms, prisons and work milieus. The three dimensions are relationship dimensions which identify the nature and intensity of personal relationships and assess the extent to which people support and help each other; personal development dimensions which assess personal growth and self-enhancement and systems maintenance and systems change dimensions which involve the extent to which the environment is orderly, clear in expectations, maintains control and is responsive to change. Moos’ (1979) scheme for classifying human environments has been used as a classification framework for the development of classroom environment instruments since the establishment of learning environments research in the 1960s.

Since the establishment of learning environments research, a number of instruments have been developed for use across a variety of classroom contexts. These include the more commonly used Learning Environments Inventory (LEI) (Walberg & Anderson, 1968), Classroom Environment Scale (CES) (Moos & Trickett, 1974), My Class Inventory (MCI) (Anderson, Walberg, & Fraser, 1981),
College and University Classroom Inventory (CUCEI) (Fraser, Treagust, & Dennis, 1986), Questionnaire on Teacher Interaction (QTI) (Wubbels & Levy, 1993), Individualised Classroom Environment Questionnaire (ICEQ) (Rentoul & Fraser, 1979), Science Laboratory Environment Inventory (SLEI) (Fraser, Giddings, & McRobbie, 1995), Constructivist Learning Environment Survey (CLES) (Taylor, Fraser, & Fisher 1997) and the What is Happening in this Class? (WIHIC) questionnaire (Aldridge & Fraser, 2000). Classroom environment instruments have been applied to research that has focused on areas that include associations between classroom environment and student educational outcomes (Fisher, Henderson, & Fraser, 1997; Fraser & McRobbie, 1995; Lee & Fraser, 2001; Wong & Fraser, 1996), transition from primary to secondary education (Ferguson & Fraser, 1999; Midgley, Eccles, & Feldlaufer, 1991), evaluations of educational innovations (Dryden & Fraser, 1998; Maor & Fraser, 1996), student and teacher perceptions of actual and ideal classroom environments (Wong & Watkins, 1996; Wubbels, Brekelmans, & Hoomayers, 1991) and teachers' attempts to improve classroom environments (Moss & Fraser, 2001; Sinclair & Fraser, 2001; Yarrow, Millwater, & Fraser, 1997).

A notable feature of classroom environment instruments is that they come in two forms, namely actual and ideal. The actual form measures perceptions of the actual or experienced classroom environment whereas the ideal form measures the preferred or ideal classroom environment. Although both forms have similar wording for the items, each has different instructions for answering. Availability of actual and ideal forms allows researchers to study the differences between actual and ideal classroom environment experiences of students. Findings from past studies suggest that actual-ideal congruence could be as important as the classroom environment per se in predicting student achievement (Fraser & Fisher, 1983) and improving teaching practice (Yarrow et al., 1997). For the purpose of this study and in order to address the situation it was deemed appropriate only to utilise the actual version of the classroom environment instrument.

The QTI (Wubbels & Levy, 1993) is unlike other classroom environment instruments in that its theoretical underpinning draws on a systems perspective on communication (Watzlawick et al., 1967) and a theoretical model of interpersonal
behaviour (Leary, 1957). Within the systems perspective of communication (Watzlawick Beavin & Jackson, 1967) it is assumed that the behaviour of participants, in this case students and teachers, mutually influence each other, the teacher is influenced by the students and vice versa, thus a circular communication process develops. The systems approach assumes that one cannot fail to communicate when in the presence of someone else. For example, if a teacher ignores students' questions because she does not hear them, then the students might infer that the teacher considers the questions irrelevant. Another assumption of this approach is that every form of behaviour involves the communication of both a report and command aspect. The report can be understood as the 'what' and the command as the 'how' of communication. When a teacher doesn't consciously think about the report and command aspects of his or her message, students might react in a way that is different from the teacher's intentions (Wubbels & Levy, 1993).

Wubbels, Creton and Hoomayers (1985) focused on the teacher as a variable for improving the learning environment and developed a model to map interpersonal teacher behaviour. This model was based on the Model of Interpersonal Behaviour of Leary (1957), which mapped interpersonal behaviour by producing a two-dimensional dichotomy. The first dimension Leary labelled influence, which he believed to be made up of a continuum from Dominance (D) to Submission (S). The second dimension Leary called proximity dimension and was made up of a continuum Cooperation (C) to Opposition (O). These dimensions can be further divided into eight equal sections each sector representing the following typical behaviours of the teacher: Leadership, Helping/Friendly, Understanding, Student Responsibility/Freedom, Uncertain, Dissatisfied, Admonishing and Strict Behaviour. The sections are labelled DC, CD, et cetera, according to their position in the co-ordinate system. For example, the two sectors leadership and helpful/friendly are both characterised by Dominance and Cooperation. In the DC sector, the Dominance aspect prevails over the Cooperation aspect. A teacher displaying DC behaviour might be seen by students as enthusiastic, a good leader, and the like. The adjacent CD sector includes behaviours of a more cooperative and less dominant type; the teacher might be seen as helpful, friendly and considerate. Figure 5 gives examples of teacher behaviour for the eight sectors of
the model for interpersonal teacher behaviour and figure 6 presents a graphic representation of the Model for Interpersonal Teacher Behaviour developed by Wubbels et al. (1985).

<table>
<thead>
<tr>
<th>Sector</th>
<th>Examples of teacher behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership (DC)</td>
<td>Organises, gives directions, determines procedures, is aware of what is happening, structures classroom situation, explains, holds class attention.</td>
</tr>
<tr>
<td>Helpful/Friendly (CD)</td>
<td>Assist, shows interest, takes a joke, shows concern, inspires confidence and trust.</td>
</tr>
<tr>
<td>Understanding (CS)</td>
<td>Listens with interest, shows trust, is accepting, is patient, is open, looks for ways to settle differences</td>
</tr>
<tr>
<td>Student (SC) responsibility/freedom</td>
<td>Allows students to go at own pace, waits for class to settle down, approves of student activity</td>
</tr>
<tr>
<td>Uncertain (SO)</td>
<td>Acts hesitant, apologises, has 'wait and see attitude',</td>
</tr>
<tr>
<td>Dissatisfied (OS)</td>
<td>Disapproving, questions seriously, looks unhappy or glum, criticises.</td>
</tr>
<tr>
<td>Admonishing (OD)</td>
<td>Get angry, is sarcastic, expresses irritation, forbids, admonishes, punishes.</td>
</tr>
<tr>
<td>Strict (DO)</td>
<td>Keeps a tight rein, checks, judges, demands silence, sets rules, gives hard tests.</td>
</tr>
</tbody>
</table>

*Figure 5. Examples of teacher behaviour for the eight sectors of the model for interpersonal teacher behaviour. (Adapted from Fraser 1998)*
Figure 6. The Model for Interpersonal Teacher Behaviour developed by Wubbels et al. (1985).

The instrument contains eight scales with the same names as the sectors of the model. Figure 7 represents a description and a sample item of each scale of the QTI. Each scale of the QTI contains eight items.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Typical item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>This teacher acts confidently</td>
</tr>
<tr>
<td>Helpful/ Friendly</td>
<td>This teacher is friendly</td>
</tr>
<tr>
<td>Understanding</td>
<td>This teacher is patient</td>
</tr>
<tr>
<td>Student responsibility/ freedom</td>
<td>We can influence this teacher</td>
</tr>
<tr>
<td>Uncertain</td>
<td>This teacher is hesitant</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>This teacher is suspicious</td>
</tr>
<tr>
<td>Admonishing</td>
<td>This teacher gets angry quickly</td>
</tr>
<tr>
<td>Strict</td>
<td>This teacher is strict</td>
</tr>
</tbody>
</table>

Figure 7 Description and sample item of each scale of the QTI (Adapted from Fraser 1998)
The QTI was first developed in the Netherlands by Wubbels, Brekelmans and Hooymayers (1991). An Australian version was established in 1993 (Fisher, Fraser, & Wubbels, 1993) followed by an American version (Wubbels & Levy, 1993). A shorter version of the QTI containing fewer items has also been developed for use in primary school classrooms (Goh & Fraser, 1996). Data collected using all versions of the QTI have been shown to be valid and reliable in previously published studies (NeSmith, 2003).

The QTI developed by Wubbels and Levy (1993) has been used in international studies to measure students’ perceptions of student-teacher interaction within a compulsory, secondary education setting. There are few studies that have utilised the QTI within a higher education context (Coll et al., 2001; Coll et al., 2002; Coll & Fisher, 2000; Fraser et al., 2010;) and no published studies conducted that have employed the use of the QTI in either a UK secondary or higher education context have been identified in the literature review. Finally, no learning environment instrument has been utilised within the context of researching incivility in higher education classrooms.

5.2 Reliability
Reliability means that a scale should consistently reflect the construct that it is measuring (Tavakol & Dennick, 2001). Internal consistency relates to the degree to which respondents answer related items in similar ways; it provides an estimate of the extent to which items co-vary as a common unit (Cronbach, 1951). For example a person with a high score on the factor leadership tends to score highly on each item within that factor. If the internal consistency is not high then the test may be measuring more than one construct or some items may be poor indicators of that construct.

In this psychometric evaluation, 244 undergraduate higher education students completed the QTI. Any incomplete questionnaires were discarded. Data was analysed utilising IBM SPSS Statistics v20. Cronbach’s alpha coefficient (α) was computed for each QTI scale as a measure of internal consistency. Each scale contained 8 items. Table 1 shows the reliability of data for each scale of the QTI.
Table 1. Internal Consistency Reliability (Cronbach Alpha Coefficient) for QTI scales

<table>
<thead>
<tr>
<th>QTI Scale</th>
<th>QTI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>0.81</td>
</tr>
<tr>
<td>Helping/ friendly</td>
<td>0.76</td>
</tr>
<tr>
<td>Understanding</td>
<td>0.79</td>
</tr>
<tr>
<td>Student responsibility/freedom</td>
<td>0.65*</td>
</tr>
<tr>
<td>Uncertain</td>
<td>0.80</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>0.87</td>
</tr>
<tr>
<td>Admonishing</td>
<td>0.72</td>
</tr>
<tr>
<td>Strict</td>
<td>0.68*</td>
</tr>
</tbody>
</table>

*α < 0.70

The data in Table 1 suggests that the QTI has 2 scales with unacceptable Cronbach’s alpha coefficients (α < 0.70, Coolican, 2009; Field, 2013). Cronbach’s alpha coefficient (α < 0.70) implies that more than 30% of the observed scores could be due to measurement error (Field 2013). Further item analysis in IBM SPSS Statistics v20 across the 8 scales did not indicate an improvement in reliability coefficient scores if items were removed. In order to improve internal consistency movement of items across scales were required and this is explored further during the process of confirmatory factor analysis.

5.3 Confirmatory Factor Analysis (CFA)

Validity is most often defined as the extent to which an instrument measures that which it was intended to measure (Byrne, 2010; Field, 2013) in this case student-teacher interaction. Data that may be valid in one context, for example population or period in time, may not be valid in another context. Validity therefore is always context specific. Factorial validity is a form of construct validity that indicates whether constructs (i.e. factors) are unambiguously operationalised by the measured indicators. Factorial validity is assessed by the correlation among items, which make up the scale or instrument measuring a construct (Tabachnick & Fidell, 2007).
Analysis of the factorial validity of the QTI was carried out. Confirmatory factor analysis of a measuring instrument is most appropriately applied to measures that have been fully developed and their factorial structure validated (Byrne, 2010). Such is the case of the QTI which has been extensively used in studies for over a twenty year period. Confirmatory factor analysis seeks to test the significance of a hypothesised factor model, that is, whether the sample data confirm the model. In testing for the validity of factorial structure for a measure, the researcher seeks to determine the extent to which items designed to measure a particular factor do so. As such, all items that comprise a factor are expected to load onto that factor. Confirmatory factor analysis for the QTI utilising data from the sample followed the process described by Schumacker and Lomax (2004) and Byrne (2010). This process comprises of four sequential stages: model hypothesis (stage 1), model evaluation (stage 2), exploratory analysis (stage 3) and model modification (stage 4).

Model hypothesis involves describing the proposed structure of the measuring instrument in question, in this study the QTI. Evaluation of a hypothesised model consists of assessing the extent to which the model ‘fits’, or in other words, adequately describes the sample data through examination of ‘goodness-of-fit’ statistics. Given findings of an inadequate goodness-of-fit, the next step is to detect sources of misfit in the model through exploratory analysis, that is, examination of modification indices (MI). Following examination of MIs, specifically covariances and regression weights, amendments to the hypothesised model are made leading to modification and respecification. The final model is that which is deemed to represent the best fitting model to represent the data.

Each of the stages of the process are described in detail in the subsequent sections of this chapter. The hypothesised model for the QTI is discussed in section 5.3.1. Results of the model evaluation for the QTI are then reported in section 5.3.2. The process of exploration of modification indices (MI), results of exploration and subsequent modifications for the QTI are addressed separately in sections 5.3.3-5.4.0 to aid clarification.
5.3.1 The hypothesised model, QTI. (Model 1)

Confirmatory Factor Analysis (CFA) of the QTI structure hypothesises that responses to the QTI, and therefore respondents’ perceptions of student-teacher interaction, can be explained by eight factors and that these factors are correlated. Six items are loaded on to each factor. Therefore each questionnaire comprises 48 items (Appendix 5). Representations of the hypothesised model using IBM AMOS v18 graphics are shown in Figure 10: Appendix 2.

CFA models are schematically portrayed in AMOS as path diagrams through the incorporation of four geometric symbols: a circle (or ellipse) representing unobserved latent factors, a square (or rectangle) representing observed variables, a single-headed arrow (→) representing the impact of one variable on another, and a double-headed arrow (↔) representing covariance between pairs of variables.

Based on the geometric configurations noted previously, composition of the CFA models for the QTI (Figures 7; Appendix 1) conveys the following information:

1. There are eight factors as indicated by the eight ellipses labelled; Helping, Uncertain, Student responsibility, Admonishing, Leadership, Dissatisfied, Understanding, Strict.
2. The eight factors are inter-correlated as indicated by the two-headed arrows.
3. There are forty-eight observed variables as indicated by the forty-eight rectangles ATQ 1-ATQ48
4. The observed variables load on the factors in the following pattern: Items 25, 29, 33, 37, 41 and 45 load on factor Helping. Items 3, 7, 11, 15, 19 and 23 load on factor Uncertain. Items 26, 30, 34, 38, 42 and 46 load on factor Student responsibility. Items 4, 8, 12, 16, 20 and 24 load on factor Admonishing. Items 1, 5, 9, 13, 17 and 21 load on factor Leadership. Items 27, 31, 35, 39, 43 and 47 load on factor Dissatisfied. Items 2, 6, 10, 14, 18 and 22 load on factor Understanding. Items 28, 32, 36, 40, 44 and 48 load on factor Strict.

The criteria of model evaluation were chosen on the basis of their support in the literature as important indices of fit that should be reported (Byrne, 2010).
following values of a good model fit are suggested when interpreting these results (Schumacker & Lomax, 2004; Byrne, 2010)

Tucker-Lewis Index (TLI): 0 (no fit) – 1 (perfect fit): > 0.90 reasonable model fit: > 0.95 good model fit

Comparative Fit Index (CFI): 0 (no fit) – 1 (perfect fit): > 0.93 reasonable model fit: > 0.95 good model fit

Root mean square error of approximation (RMSEA) <0.05 good fit; 0.05-0.08 reasonable fit; > 0.09 poor fit.

The chi-square statistic for the model is also called the chi-square goodness of fit. If the chi-square is not statistically significant, the model is regarded as acceptable. If the chi-square is significant, the model is regarded, at least sometimes, as unacceptable. However, many researchers disregard this index if both the sample size exceeds approximately 200 and other indices indicate the model is acceptable. Larger samples produce larger chi-squares that are more likely to be significant (Type I error) (Schumacker & Lomax, 2004). In this CFA the sample size was 244.

The relative chi-square equals the chi-square index divided by the degrees of freedom df. The criterion for acceptance varies across researchers, ranging from less than 2 (Ullman, 2001) to less than 5 (Schumacker & Lomax, 2004).

5.3.2 Evaluation of hypothesised model, QTI (Model 1) Model fit

Summaries of model fit for the hypothesised models (Model 1) (Figure 10; Appendix 2) QTI are provided in Table 2.

<table>
<thead>
<tr>
<th></th>
<th>χ²</th>
<th>Df</th>
<th>χ²/df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>QTI</td>
<td>1937.902</td>
<td>1052</td>
<td>1.864</td>
<td>0.74</td>
<td>0.75</td>
<td>0.06</td>
</tr>
</tbody>
</table>

Review of the hypothesised model (Model 1) QTI demonstrated a poor to reasonable fitting model. Thus it was apparent that some modification was required in order to identify a model that better represented the sample data. To achieve
this, and identify areas of potential misfit the modification indices (MIs) were explored. The results of these explorations and subsequent modifications for the QTI are addressed separately to aid clarification.

5.3.3 Exploratory analysis of modification indices, QTI.
Modification indices for the hypothesised model (model 1) QTI are presented in Tables 3 Covariances (Appendix 1) and Table 6 Regression weights (Appendix 2)

On examination of the modification indices (MI) related to covariances in Table 3 (Appendix 5) large MI values are shown to be associated with items 4 and 32 (err49< err44), items 37 and 41 (err10 < err11) and items 3 and 7 (err23< err2) These measurement error covariances may derive from characteristics specific to either the items or respondents (Byrne, 2010). Examination of these items could not identify relevant respondent characteristics however one cause of error covariance linked to item characteristics is a high degree of overlap in item content. This may occur when items, although worded differently, essentially ask the same question. This could indeed be the case with items 37 and 41 and also items 3 and 7. Item 37 states ‘this teacher has a sense of humour’ whilst item 41 states ‘this teacher can take a joke’. Furthermore item 3 states ‘This teacher seems uncertain’ and item 7 ‘This teacher is hesitant’.

5.3.4 Modification of model, QTI (Model 2)
Provided with information regarding model fit consideration was given to the modification of the original hypothesised model of the QTI (Model 1). The justification for modifications was based on the identified poor to reasonable model fit and high value modification indices. The rationale for specific amendments will be offered.

As recommended, one parameter at a time was added. It appears reasonable to suggest beginning with the addition to the model of the error covariance with the highest MI value (err49< err44) however having examined the associated items 4 ‘This teacher gets angry unexpectedly’ and 32 ‘We have to be silent in this teacher’s class’ there is no obvious item or respondent characteristic to justify this
addition. There is however, as previously identified, potential content overlap between items 37 and 41 and between items 3 and 7.

Items 3 and 7 had the error covariance with the second highest MI value and therefore the hypothesised model (Model 1) was modified by adding a covariance between these two items. Goodness of fit statistics were then compared between the hypothesised model of the QTI (Model 1) and the modified model of the QTI (Model 2). The results are shown in Table 4 and reveal that incorporation of error covariance between items 3 and 7 made a significant improvement to the hypothesised model of the QTI (Model 1), \( \Delta \chi^2(1) = 29.21, p < .001 \), with decreased Chi squared and RMSEA values and increased CFI and TLI.

<table>
<thead>
<tr>
<th>Model</th>
<th>( \chi^2 )</th>
<th>Df</th>
<th>( \chi^2/df )</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>QTI, Model 1</td>
<td>1937.902</td>
<td>1052</td>
<td>1.842</td>
<td>0.790</td>
<td>0.774</td>
<td>0.061</td>
</tr>
<tr>
<td>QTI, Model 2</td>
<td>1908.688</td>
<td>1051</td>
<td>1.816</td>
<td>0.796</td>
<td>0.781</td>
<td>0.060</td>
</tr>
</tbody>
</table>

Items 37 and 41 had the error covariance with the third highest MI value and therefore model 2 was further modified by adding a covariance between these two items.

5.3.5 Respecified Model of the QTI (Model 3)

Goodness of fit statistics were then compared between the modified model of the QTI (Model 2) and respecified model of the QTI (Model 3). The results are shown in Table 5 and reveal that incorporation of error covariance between items 37 and 41 made a statistically significant improvement, \( \Delta \chi^2(1) = 25.98, p < .001 \), to the modified model (Model 2) with decreased Chi squared, equal RMSEA values and increased CFI and TLI. The resulting respecified model of the QTI (Model 3) is shown in Figure 11 (Appendix 3)
Table 5. Summaries of model fit for both the modified model (Model 2) of the QTI and respecified model (Model 3) of the QTI

<table>
<thead>
<tr>
<th></th>
<th>$\chi^2$</th>
<th>Df</th>
<th>$\chi^2$/df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>QTI Model 2</td>
<td>1908.688</td>
<td>1051</td>
<td>1.816</td>
<td>0.796</td>
<td>0.781</td>
<td>0.060</td>
</tr>
<tr>
<td>QTI Model 3</td>
<td>1882.711</td>
<td>1050</td>
<td>1.793</td>
<td>0.802</td>
<td>0.788</td>
<td>0.060</td>
</tr>
</tbody>
</table>

5.3.6 Final Model, QTI (Model 4)

On examination of regression weights in Table 6 (Appendix 2) there are several parameters that indicate cross-loading. Of particular interest is item 26, originally postulated to load on the student responsibility factor, cross-loading to six other factors. This item states ‘We can decide some things in this teacher’s class’ and appears ambiguous. It was decided therefore to delete this item.

Goodness of fit statistics were then compared between the respecified model of the (Model 3) (Figure 11; Appendix 3) and the final model of the QTI (Model 4). The results are shown in Table 7 and reveal that deletion of item 26 made a statistically significant improvement, $\Delta \chi^2(46) = 94.65, p < .001$, to the respecified model of the QTI (Model 3) with decreased Chi squared and RMSEA values and increased CFI and TLI.

Table 7. Summaries of model fit for both the respecified model (Model 3) of the QTI and final model (Model 4) of the QTI

<table>
<thead>
<tr>
<th></th>
<th>$\chi^2$</th>
<th>Df</th>
<th>$\chi^2$/df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>QTI Model 3</td>
<td>1882.711</td>
<td>1050</td>
<td>1.793</td>
<td>0.802</td>
<td>0.788</td>
<td>0.060</td>
</tr>
<tr>
<td>QTI Model 4</td>
<td>1788.061</td>
<td>1004</td>
<td>1.781</td>
<td>0.811</td>
<td>0.797</td>
<td>0.059</td>
</tr>
</tbody>
</table>

The resulting final model of the QTI (Model 4) is shown in Figure 12. (Appendix 4)
5.5 Conclusion
The model fit values for the QTI final model demonstrates an inadequate model fit despite modifications to the hypothesised model based on modification indices values. Furthermore, Internal Consistency Reliability (Cronbach’s α) for QTI scales is below the acceptable value (α > .70) for two scales on the QTI.

Reasons for inadequacies in validity and reliability of the QTI may be twofold. Wubbels, Brekelmans and Hooymayers first developed the QTI in 1991. The QTI has since been used extensively in international studies and translated into several languages however since this time there have been no amendments to this version of the QTI. It could therefore be argued that respondents’ perceptions of student-teacher interaction have changed over this period of time.

The QTI was primarily developed for use within a compulsory, secondary school environment and there are few studies that have utilised the QTI within a higher education context (Coll et al., 2001; Coll et al., 2002; Coll & Fisher, 2000; Fraser et al., 2010). Although the validity and reliability of data using the QTI is confirmed within two of these studies, when Coll et al. (2002) utilised the QTI in the Pacific Islands they reported Cronbach’s α of 0.58 and 0.60 for the scales of Student Responsibility and Strict respectively. The same scales of the QTI were identified as having unacceptable internal reliability within this psychometric evaluation. Furthermore, Telli, Brok and Cakiroglu (2008) found that some of the items of the QTI could not easily be identified in Turkish classrooms, for example teachers defined uncertainty as unplanned lessons or chaos in the classroom; elements that could not be identified in the original QTI items.

5.6 Chapter summary
Within this chapter, tests of internal reliability revealed that scales of the QTI had unacceptable Cronbach’s α. Analysis of the factorial validity of the QTI was also performed and the process of model specification, assessment, exploratory analysis and modification was utilised. Confirmatory factor analysis (CFA) demonstrated a poor to reasonable model fit for the QTI. Examination of modification indices, co-variances and regression weights, resulted in modifications.
to the hypothesised model in order to identify a model that better represented the sample data.

Despite these modifications, the final model continued to demonstrate inadequate model fit. Reasons for inadequacies in validity and reliability of the QTI might include changing perceptions of student-teacher interactions since the inception of the QTI in 1991 and also the change in context in the use of the QTI from Dutch and American secondary education to a UK higher education perspective.

In view of lack of confirmation of validity and reliability within present day UK higher education undergraduate students the decision was made to develop a modified version of the QTI, for use within this study. This is discussed in Chapter 6.
Chapter 6 Modification of the QTI

6.0 Chapter outline
In the preceding chapter, evaluation of the QTI for assessing undergraduate students’ perceptions of their teacher’s interpersonal behaviour within a higher education context in the United Kingdom revealed that the model fit values for the QTI final model demonstrated an inadequate model fit despite modifications to the hypothesised model based on modification indices values. In view of lack of confirmation of validity and reliability within present day UK undergraduate students a modified version of the QTI, was developed for use within this study. Modifications are addressed to deal with issues of internal reliability, factorial validity, content validity and factorial changes based on underpinning theoretical frameworks. This chapter details that process.

6.1 Reliability
Consideration of reliability for a sample of higher education undergraduate students \((n=244)\) revealed that the QTI has 2 scales with unacceptable internal reliability coefficients \((\alpha < 0.70)\), (Coolican, 2009, Field, 2013) (See Section 5.2). Further item analysis in IBM SPSS Statistics v20 across the 8 scales did not indicate an improvement in internal reliability coefficient scores if items were removed. Reliability can be improved by increasing the clarity of scale items, that is, the precise phrasing of the question, to produce more consistent responses (Oppenheim, 2000). A focus group consisting of eight undergraduate health and social care students was therefore asked to review the QTI and to comment on the clarity of the items. Four students were recruited from a BSc Nursing and four from a BSc Nutrition programme.

The students identified seven items that were deemed to be ambiguous and could potentially be re-worded. This included items on three of the scales; uncertain, strict and admonishing. In addition prior to analysis of the QTI data it became apparent that a high proportion of respondents that had not completed all the questions on the QTI included non-completion of item 44; these incomplete questionnaires, in total 22, had been discarded. This non completion of item 44 may be due to that
fact that at the time of completion of the QTI the teacher had not yet assessed students.

Items within the QTI were amended as follows: (amendments in italics)

15. This teacher lets us boss him/her around. *This teacher lets us take control.*  
19. This teacher is not sure what to do when we fool around. *This teacher struggles to gain control.*  
20. It is easy to pick a fight with this teacher. *It is easy to wind this teacher up.*  
23. It is easy to make this teacher appear unsure. *This teacher appears unsure.*  
36. This teachers assessments are hard. *This teachers expectations are high.*  
44. This teacher is severe when marking assessments. *This teacher will be severe when marking assessments.*  
47. This teacher is suspicious. *This teacher appears unhappy.*

6.2 Validity

Reasons for inadequacies in the factorial validity and internal reliability of data collected using the (QTI) may be two-fold and related to context. Switzer, Wisniewski, Belle, Dew and Schultz (1999) identify the importance of context, factors extraneous to the assessment tool itself and relating to the setting or population, when considering the selection of appropriate research instruments. Issues of historical context are particularly pertinent to measures that have been used for several years in their original format. Issues related to context and unsatisfactory validity and reliability of QTI data in outlined in this study have been outlined in the previous chapter (Section 5.4).

In selecting and developing an instrument, one of the primary considerations is that of the characteristics of the study participants. Factors such as gender, age and educational level may affect responses to items. Within this study basic demographic information about participants was not collected. Matters related to participants and internal reliability within this study have been discussed in Section 5.5.
6.2.1 Factorial validity
The process of CFA in evaluating the validity of the QTI is detailed in Section 5.3. The model fit values for the QTI final model demonstrated an inadequate model fit despite modifications to the hypothesised model based on modification indices values (see Section 5.4). During the process of evaluating the validity of the QTI examination of modification indices (MI), both covariances and regression weights identified items that required exploration. The process of item exploration and its ensuing item modification within the QTI is detailed in this section.

On examination of the modification indices for the QTI related to covariances (Table 3, Appendix 5) large MI values were shown to be associated with items 4 and 32, items 37 and 41 and items 3 and 7. These measurement error covariances may derive from characteristics specific to either the items or respondents (Byrne, 2010). Examination of these items could not identify relevant respondent characteristics however one cause of error covariance linked to item characteristics is a high degree of overlap in item content. This may occur when items, although worded differently, essentially ask the same question. This could indeed be the case with items 37 and 41 and also items 3 and 7. Item 37 states ‘This teacher has a sense of humour’ whilst item 41 states ‘This teacher can take a joke’. Furthermore item 3 states ‘This teacher seems uncertain’ and item 7 ‘This teacher is hesitant’. It was therefore decided to remove item 41 from the scale helping/friendly and item 7 from the scale uncertain.

On examination of regression weights (Table 6, Appendix 6) there are several parameters that indicate cross-loading. Of particular interest is item 26, originally postulated to load on the student responsibility factor, cross-loading to six other factors. This item states ‘We can decide some things in this teacher’s class’ and appears ambiguous. It was decided therefore to delete item 26.

6.2.2 Content validity
Content validity concerns the extent to which items in the measure accurately reflect the full breadth of the construct of interest. Therefore content validity is established by demonstrating that a representative set of items has been selected for the instrument. Validity of content is often established by having experts in the
field and representatives of the participant population review the instrument and provide critical evaluation of content. The QTI is an established instrument that has been utilised within published literature for over 20 years and has been developed within the theoretical context of learning environments research (see Section 5.1). There is however recent literature within a higher education context which suggests that modifications are required to adequately reflect the scope of student-teacher interaction (Sections 2.4 and 2.5).

Inadequate model fit of the QTI Actual Teacher version following confirmatory factor analysis and minor modifications suggests that more extensive modifications are required. As stated, issues of context may be responsible for these results (Section 5.5) and therefore recent literature within a higher education context, which suggests that modifications are required to adequately reflect the scope of current higher education student-teacher interaction was utilised to further revise the QTI.

Table A in Section 5.1 gives examples of teacher behaviour for the eight sectors of the model for interpersonal teacher behaviour. These sectors reflect the scales (factors) of the QTI and although these sectors are retained in the modified version, amendments were made to some of the scales to include change of name and item structure. These changed are discussed in the following section (Section 6.3).

6.3 Factorial changes
When making changes to factor structure within the modified QTI the following underpinning theoretical frameworks of the unmodified version were considered and subsequent amendments were made within those frameworks: Moos’ (1979) three general categories used in characterising diverse learning environments; Watzlawick et al. (1967) systems perspective of communication and Leary (1957) the model of interpersonal behaviour (see Section 6.4.3 of this chapter).
Proposed Factors:

Factor 1 Leadership
This factor remains relatively unchanged, however item 13 was modified from ‘This teacher knows everything that goes on in the classroom’ to ‘This teacher is aware of what is happening in the classroom’ for clarification purposes.

Factor 2 Helping/Friendly
Item 41 was removed from this factor as previously described.

Factor 3 Understanding
Examination of the factor description for understanding ‘The extent to which the teacher shows understanding/concern/care to students’ identified a gap in that there are no items in this scale that relate specifically to caring. Furthermore, current literature within a higher education context highlights the emphasis that students place on the importance of a teacher displaying caring behaviours (Boice, 1996; Savage & Favret, 2006; Straights, 2007). It was therefore decided to include items on caring within this factor. Items were therefore added based on behaviours as described by student as ‘indicators of caring instruction” (Straights, 2007, p.174).

The following items were added to the QTI
49. This teacher gets to know students
50. This teacher wants students to succeed
51. This teacher makes him/herself available to students

Factor 4 Student responsibility/freedom
Item 41 was removed from this factor as previously described

Following a review of current literature on student responsibility within a higher education context, consideration was given to replacing this factor with a new factor, namely autonomy support. Autonomy support is the interpersonal behaviour teachers provide during instruction to identify, nurture, and build students' inner motivational resources. The opposite of autonomy support is controlling. Controlling is the interpersonal behaviour teachers enact during instruction to gain students’
compliance with a teacher-prescribed way of thinking, feeling, or behaving (Reeve et al., 2004).

Autonomy support is indicated by behaviours such as acknowledging students’ feelings and perspectives, providing students with information and choice and minimising the use of pressure and control (Reeve et al., 2004). This is comparable to the factor description of student responsibility in the QTI, which is ‘the extent to which students are given opportunities to assume responsibilities for their own activities. Autonomy support also fits with the submission/co-operation (SC) sector of the model for Interpersonal Teacher Behaviour in which the student responsibility/freedom factor resides. A typically autonomy supportive teacher will demonstrate behaviours such as listening to students, asking students what they want, responding to student generated questions and supporting student motivation.

The autonomy support scale of the Learning Climate Questionnaire (LCQ) has been used by researchers to measure student perceptions of teacher autonomy support within the field of self-determination theory (Black & Deci, 2000; Williams & Deci, 1996) and to examine the relationship between autonomy support and student incivility in undergraduate classrooms (Summers et al., 2009). The LCQ has a single underlying factor with high internal consistency (Williams & Deci, 1996),

The factor student responsibility/freedom was therefore replaced with the 6 item version of the autonomy support scale of the LCQ (Williams & Deci, 1996). The wording of the items was changed to reflect the views of the class rather than individuals in fitting with the context of the QTI. Furthermore the seven point Likert scale utilised within the LCQ was reduced to that of a five point Likert scale in fitting with the QTI.

Autonomy support
26. This teacher provides us with choices and options
30. This teacher makes us feel understood
34. This teacher conveys confidence in our ability to do well in the course
38. This teacher encourages us to ask questions
42. This teacher listens to how we would like to do things
46. This teacher tries to understand how we see things before suggesting new ways to do things

Factor 5 Uncertain
Item 7 had been removed from this factor as previously described.
Modifications to items 15, 19 and 23 within this factor are as previously described.

Factor 6 Dissatisfied
Modifications to item 47 within this factor are as previously described.

Factor 7 Admonishing
Following a review of current literature on teacher incivility within a higher education context (see Section 2.5.2) consideration was given to replacing this factor with a new factor, namely Rankism.

Rankism is defined as “the abuse of power based on a person’s rank and position within a particular hierarchy”. It occurs when people abuse their power to demean or disadvantage those that they outrank (Fuller, 2003, p.3). Rankism highlights the issues of power imbalance that students and teachers within a higher education context view as a instigating negative interactions (Clark, 2008) and further develops the description of the admonishing scale of the QTI: ‘expresses irritation, forbids, punishes, punitive’ to incorporate this imbalance. Rankism also fits with the opposition/dominance (OD) sector of the model for interpersonal teacher behaviour in which the admonishing factor resides. Items for the new rankism factor were based on students’ descriptions of behaviours in higher education that fit with the concept of rankism (Clark, 2008b)

Rankism
4. This teacher acts superior to us
8. This teacher belittles students
12. This teacher treats us like children
16. This teacher shows favouritism
20. This teacher places unreasonable demands on us
24. This teacher punishes students

Factor 8 Strict
Modifications to items 36 and 44 within this factor are as previously described

Final version
The final version of the QTI is that of an eight factor model containing a total of 49 items. The new factors consist of leadership, helping, understanding, autonomy support, uncertain, dissatisfied, rankism and strict.

6.4 Exploration of the modified QTI
Due to the extensive nature of the modifications made to the original version of the QTI a decision was made to conduct exploratory factor analysis on the modified version to examine factorial structure and reliability. Exploratory factor analysis rather than confirmatory factor analysis has previously been utilised in studies to assess scale structure during the modification process of existing psychometric instruments (Nieuwenhuizen, Shene, Koeter & Huxley, 2001; Walsh et al., 2012). Furthermore, Brown (2006) advocates the use of exploratory factor analysis within the confirmatory factor analysis framework when a poor-fitting model has been identified.

Data was collected from 436 undergraduate health and social care students within a higher education context. Data was analysed using IBM SPSS Statistics v20. Tolmie, Muijs and McAteer (2011) suggest that a sample size of 300 will provide a stable factor solution whilst Field (2013) proposes 10 participants per variable as a minimum requirement for exploratory factor analysis. Thus, both of these suggestions were satisfied within the chosen sample.

A principal components analysis was performed utilising promax rotation as theory (Leary 1957; Wubbels et al., 1985) suggests that in this case factors may be correlated. Within the circumplex model of interpersonal behaviour (Leary 1957) factors next to each other correlate more strongly than those on the opposite side of the model (see section 5.1). Generally, the initial loadings provided by factor
analysis are not interpretable because they do not reflect a ‘simple structure’. A definition of simple structure for a given item refers to the situation where factor loadings are either very large, suggesting a clear relationship between the item and factor, or very small, suggesting no relationship at all between the item and factor (McLeod, Swygert, & Thissen, 2001). Factor rotation involves a transformation of the initial factor loadings so that a greater simple structure is obtained thus creating a more interpretable solution. Authors have made the fairly general recommendation that if researchers believe the underlying factors are correlated, they should use an oblique rotation, such as promax (Johnson & Wichern, 2002; Tabachnick & Fidell, 2001).

Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was calculated for the QTI. KMO is an index used to measure the suitability of exploratory factor analysis. Large values for the KMO measure indicate that a factor analysis of the variables is appropriate. A value of close to 1 indicates that patterns of correlations are compact and therefore factor analysis should yield distinct and reliable results. Field (2013) suggests that values greater than 0.5 are acceptable, that values between 0.8 and 0.9 are great and that values over 0.9 are superb. A KMO value of 0.90 was reported for the Actual Teacher Questionnaire. These results confirm that exploratory factor analysis is an appropriate means of factor identification for this data.

6.4.1 Exploratory factor analysis of the modified QTI
Exploratory factor analysis of the modified QTI revealed a five factor structure (Tables 8). Factor loadings of > 0.4 were suppressed as a cut-off point as 0.4 is appropriate for interpretive purposes (Field 2013; Muijs 2011). Originally 8 factors were identified however 3 factors that contained less than three items were discounted as these items no longer represent meaningful clusters of variables (Tabachnick & Fidell, 2001) Where items loaded onto more than one factor suitability as to which factor the item should be retained on was determined by examination of the following considerations: factor loading value and the appropriateness of the item within the factor based on content. For example, on examination of factor loading item 28 ‘This teacher is strict’ loaded onto factor 5 and factor 8. The higher loading factor was onto factor 5 and furthermore the
content of the item was deemed to be consistent with other items on this factor which also relate to ‘strictness’. It was therefore considered appropriate to retain this item on factor 5.
### Table 8. Exploratory factor analysis modified QTI

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor loading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor 1</td>
</tr>
<tr>
<td><strong>Teachers Positive Personal Attributes</strong></td>
<td></td>
</tr>
<tr>
<td>This teacher encourages us to ask questions</td>
<td>.952</td>
</tr>
<tr>
<td>This teacher has a sense of humour</td>
<td>.872</td>
</tr>
<tr>
<td>This teacher’s class is pleasant</td>
<td>.841</td>
</tr>
<tr>
<td>This teacher gets to know students</td>
<td>.777</td>
</tr>
<tr>
<td>This teacher tries to understand how we see things</td>
<td>.705</td>
</tr>
<tr>
<td>This teacher is someone we can depend on</td>
<td>.702</td>
</tr>
<tr>
<td>This teacher is friendly</td>
<td>.695</td>
</tr>
<tr>
<td>This teacher conveys confidence in our ability to do well on the course</td>
<td>.680</td>
</tr>
<tr>
<td>This teacher listens to how we would like to do things</td>
<td>.587</td>
</tr>
<tr>
<td>This teacher wants students to succeed</td>
<td>.569</td>
</tr>
<tr>
<td>This teacher makes us feel understood</td>
<td>.539</td>
</tr>
<tr>
<td>This teacher is a good leader</td>
<td>.534</td>
</tr>
<tr>
<td>If we have something to say, this teacher will listen</td>
<td>.516</td>
</tr>
<tr>
<td><strong>Uncertain</strong></td>
<td></td>
</tr>
<tr>
<td>This teacher acts as if he/she does not know what to do</td>
<td>.343</td>
</tr>
<tr>
<td>This teacher treats us like children</td>
<td>.341</td>
</tr>
<tr>
<td>This teacher seems uncertain</td>
<td>.025</td>
</tr>
<tr>
<td>This teacher appears unsure</td>
<td>.105</td>
</tr>
<tr>
<td>This teacher struggles to gain control</td>
<td>.171</td>
</tr>
<tr>
<td><strong>Dissatisfied</strong></td>
<td></td>
</tr>
<tr>
<td>This teacher puts us down</td>
<td>.060</td>
</tr>
<tr>
<td>This teacher thinks that we don’t know anything</td>
<td>-.131</td>
</tr>
<tr>
<td>This teacher thinks that we cheat</td>
<td>-.170</td>
</tr>
<tr>
<td>This teacher thinks that we can’t do things well</td>
<td>.008</td>
</tr>
<tr>
<td><strong>Student-focused Teaching</strong></td>
<td></td>
</tr>
<tr>
<td>This teacher helps us with our work</td>
<td>-.229</td>
</tr>
<tr>
<td>This teacher explains things clearly</td>
<td>-.091</td>
</tr>
<tr>
<td>This teacher realises when we don’t understand</td>
<td>-.043</td>
</tr>
<tr>
<td>This teacher provides us with options and choices</td>
<td>.240</td>
</tr>
<tr>
<td>This teacher is willing to explain things again</td>
<td>.305</td>
</tr>
<tr>
<td>This teacher makes him/herself available to students</td>
<td>.315</td>
</tr>
<tr>
<td><strong>Strict</strong></td>
<td></td>
</tr>
<tr>
<td>This teacher’s expectations are high</td>
<td>.342</td>
</tr>
<tr>
<td>This teacher’s standards are very high</td>
<td>.380</td>
</tr>
<tr>
<td>This teacher will be severe when marking assessments</td>
<td>-.165</td>
</tr>
<tr>
<td>We have to be silent in this teacher’s class</td>
<td>.148</td>
</tr>
<tr>
<td>This teacher is strict</td>
<td>-.134</td>
</tr>
<tr>
<td>% Cumulative variance</td>
<td>30.63</td>
</tr>
</tbody>
</table>
Examination of the five identified factors revealed strong similarities between the item content of the original form of the QTI across three of the factors. A decision was therefore made to retain the labels ‘Uncertain’ for factor 2, ‘Dissatisfied’ for factor 3 and ‘Strict’ for factor 5. Consideration of item content of factors 1 and 4 suggested that these factors be renamed as ‘Teacher’s positive personal attributes’ and ‘Student–focused teaching’. ‘Teachers positive personal attributes’ appear to be measuring personal attributes, defined as personal traits and characteristics that make up personality and which define who you are as a person. They are not specifically related to teaching. ‘Student-focused teaching’ involves giving opportunities for students to discuss, explain and debate during class and shifts the focus and responsibility from teacher to student. These behaviours relate specifically to the act of teaching.

Internal reliability coefficients (Cronbach’s $\alpha$) were computed for each scale of the QTI as a measure of internal consistency (Table 10). Reliability coefficients representing good values of $\alpha < 0.7$ (Muijs, 2011; Tolmie et al., 2011) were reported for all scales.

Table 10. Internal consistency reliability (Cronbach Alpha Coefficient) for the Modified QTI

<table>
<thead>
<tr>
<th>Factor</th>
<th>QTI Actual Teacher Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td>0.93</td>
</tr>
<tr>
<td>Factor 2</td>
<td>0.77</td>
</tr>
<tr>
<td>Factor 3</td>
<td>0.75</td>
</tr>
<tr>
<td>Factor 4</td>
<td>0.83</td>
</tr>
<tr>
<td>Factor 5</td>
<td>0.77</td>
</tr>
</tbody>
</table>
Following exploratory factor analysis the resulting version of the QTI consists of a five factor 33 item structure (Appendix 6).

6.4.2 Theoretical Considerations

Prior amendments to factor and item structure and content and their theoretical justification have been discussed earlier in this chapter, (Section 6.3). The same consideration to the underpinning theoretical frameworks (Leary, 1957; Moos, 1979; Watzlawick, 1967) will be applied following modification based on exploratory factor analysis. More detailed discussion of these frameworks has been given in Section 5.1.

Moos (1979) described three general categories that characterised learning environments and these have be utilised as a classification framework for the development of learning environment instruments since the establishment of learning environments research. The three dimensions are relationship dimensions which identify the nature and intensity of personal relationships and assess the extent to which people support and help each other; personal development dimensions which assess personal growth and self-enhancement and systems maintenance and systems change dimensions which involve the extent to which the environment is orderly, clear in expectations, maintains control and is responsive to change.

These three categories of relationships, personal development and systems maintenance are evident in the modified version of the QTI. Table 11 demonstrates where each factor of the QTI fits within these categories.
Table 11. Moos (1979) dimensions of learning environments and factorial structure of the modified QTI

<table>
<thead>
<tr>
<th>Moos (1979) dimensions of learning environments</th>
<th>Actual Teacher Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship</td>
<td>Teachers positive personal attributes</td>
</tr>
<tr>
<td></td>
<td>Uncertain</td>
</tr>
<tr>
<td></td>
<td>Dissatisfied</td>
</tr>
<tr>
<td>Personal development</td>
<td>Student-focused teaching</td>
</tr>
<tr>
<td>Systems maintenance</td>
<td>Strict</td>
</tr>
</tbody>
</table>

Within the systems perspective of communication (Watzlawick et al., 1967) it is assumed that the behaviour of participants, in this case teachers and students, mutually influence each other. This theory is retained within the revised QTI as the focus remains on interactions between the teacher and student.

The model of interpersonal behaviour of Leary (1957) mapped interpersonal behaviour by producing a two-dimensional dichotomy with dimensions of influence and proximity. The influence dimension guides who is directing or controlling the communication whereas the proximity dimension designates the degree of cooperation or closeness between those who are communicating. This original model contained four quadrants. Within this model Leary’s dimensions ranged from dominance (D) to submission (S) and from cooperation (C) to oppositional (O). The sections are labelled DO, OS, SC, CD, according to their position in the co-ordinate system. Leary’s original model was further divided into eight sub-sections which each represented factors of the original QTI instrument for educational purposes (Brok et al., 2010). The eight factors are Leadership, Helpful/Friendly, Understanding, Student responsibility/Freedom, Uncertain, Dissatisfied, Admonishing, Strict (see Section 5.1). Although the revised QTI does not support the eight quadrant structure in its entirety and encompasses five of the eight sub-sections, the original four quadrant model and its concepts of influence and proximity and their continuums remain (Figure 8). Coll et al. (2002) also identified anomalies with the eight-quadrant circumplex model when evaluating the validity of
the QTI within a higher education context in the Pacific Islands. When determining correlation between the scales, each scale should correlate highest with the scale adjacent to it in the model. Coll et al. (2002) found what they term ‘some irregularities’ however, their irregularities are not identifiable within the results as the inter-scale correlations are only provided for seven of the eight scales and exclude those for the scale ‘understanding’.

Due to the extensive modifications made to the QTI attention was given to renaming the instrument taking into consideration the unchanged underpinning theoretical framework yet acknowledging the contextual revisions. The instrument was therefore renamed the Questionnaire on Teacher Interaction in Higher Education (QTIHE) and will be referred to as such throughout the remainder of this thesis.

![Diagram of Leary's (1957) Model of Interpersonal Behaviour and the Factorial Structure of the QTIHE.](image)

**Figure 8. Leary's (1957) Model of Interpersonal Behaviour and the Factorial Structure of the QTIHE.**

Due to the extensive modifications made to the QTI attention was given to renaming the instrument taking into consideration the unchanged underpinning theoretical framework yet acknowledging the contextual revisions. The instrument was therefore renamed the Questionnaire on Teacher Interaction in Higher Education (QTIHE) and will be referred to as such throughout the remainder of this thesis.
Items on the QTIHE were renumbered across the factors to ensure clarity and consistency (Appendix 8) and correspondingly in the questionnaires (Appendix 10).

6.5 Chapter summary
Chapter 5 and Chapter 6 of this thesis focus on the psychometric evaluation, modification and subsequent renaming of the QTI. This phase of the study is crucial; as despite the QTI being previously used within the international literature, no published research has been located that uses the QTI within the United Kingdom. Furthermore, there are few studies that have utilised the QTI within a higher education context (Coll et al., 2001; Coll et al., 2002; Coll & Fisher, 2000; Fraser et al., 2010). The QTI was selected for use within this study as a measure of perceived student-teacher interaction and therefore to address Research Question 3 ‘What is the relationship between students’ perceptions of student-teacher interaction and classroom incivility in higher education?’

In an early evaluative phase 244 undergraduate students completed the QTI. Tests of reliability revealed that scales of the instrument had unacceptable internal reliability (Cronbach’s $\alpha < 0.7$). Analysis of the factorial validity of both QTI versions was also performed and the process of model specification, assessment, exploratory analysis and modification was utilised. Confirmatory factor analysis (CFA) demonstrated a poor to reasonable model fit the QTI. Examination of modification indices and regression weights resulted in modifications to the hypothesised model in order to identify models that better represented the sample data.

Despite these modifications, the final model continued to demonstrate inadequate model fit. Reasons for inadequacies in validity and reliability of the QTI include changing perceptions of student-teacher interactions since the inception of the QTI in 1993 and also the change in context in the use of the QTI within UK higher education.

In view of the lack of confirmation of reliability and validity of the QTI within UK undergraduate students a modified version was developed for use within this study.
Following a focus group of undergraduate students, amendments were made to items to improve internal consistency. This included the rewording of seven items to enhance clarity. In addressing issues of validity, extensive modifications were made to item structure and renaming of scales. These modifications were based on literature that reflects the current context of higher education student-teacher interactions.

Exploratory factor analysis of the QTI, led to a revised five factor 33 item structure. The theoretical considerations related to the QTI were subsequently deliberated. Following modification the instrument was renamed the QTIHE. The QTIHE will be utilised in this exploratory study to collect data regarding students’ perceptions of interactions with their teachers and in conjunction with quantitative data analysis from classroom observations to address Research Question 3 ‘What is the relationship between students’ perceptions of student-teacher interaction and classroom incivility in higher education?’

Finally, the QTIHE is an addition to the catalogue of existing learning environments instruments. Specifically, the QTIHE contributes to the collection of learning environments that have a theoretical underpinning within the systems perspective of communication (Waltzlawisk et al., 1967) and draw on a theoretical model of interpersonal behaviour (Leary, 1957). (see Section 5.1). Moreover, the development of the QTIHE within this study enables the concept of classroom incivility within a higher education classroom context to be uniquely viewed within the theoretical framework of learning environments research. This will be further discussed in sections 11.1.1 and 11.2.1.
Chapter 7 The process of semi-structured classroom observation

7.0 Chapter outline

This chapter will detail the process of collecting data through semi-structured observation. The reasons for choosing this method of collecting data will be stated followed by consideration of the process of gathering both quantitative and qualitative data within the same time frame. The role of the researcher within this study is examined followed by a discussion of the issue of gaining access to classrooms. The procedure for recording data in the form of field notes is deliberated and finally matters of quality assurance are addressed.

7.1 Rationale

The decision to gather data utilising the process of semi-structured classroom observations was based on several factors. Since the paper published by Boice (1996) there have been no further studies that employ observation in the investigation of classroom incivility in higher education. In addition, the majority of previous research has focused on students’ and teachers’ perception of prevalence and types of incivility through the use of surveys (Al-Kandari, 2011; Ausbrooks et al., 2011; Black et al., 2011; Clark, 2007; Clark, 2008c) and interviews (Clark, 2008a; Del Prato, 2013; Luparell, 2003). Furthermore the exploratory nature of this study enables greater insight into the perceived problematic issue of incivility to be gained through observational methods. Finally, prior published research on the incidence and types of classroom is limited to quantitative methods therefore the use of a semi-structured observation enables previously unidentified types of incivility to be recognised and patterns of behaviour that begin to contextualise student incivility to be acknowledged.

Earlier studies have centred on post-hoc methods including students’ and teachers’ reports of classroom incivility; that is reporting of incivility that they have experienced prior to data collection. Collecting data after the event raises the sometimes problematic issue of recall. A distinctive feature of observation as a research process is that it offers the opportunity to gather ‘real’ data from naturally occurring social settings (Robson, 2011), as Delamont (2002, p.122) advocates ‘there is no substitute for being on the scene’. In this way the researcher can look
directly at what is taking place *in situ* rather than relying on accounts of others, thus yielding more valid or authentic data than inferential methods. This ‘outside looking in’ style of observation, aims to be objective and avoids becoming part of the ‘action being observed’ (Cohen et al., 2011; Cotton, Stokes & Cotton, 2010). Inherent difficulties in the validity of data may arise from deficiencies in memory after the event (Walshe, Gail, & Griffiths, 2011) and also social desirability bias where participants may behave in a manner that they believe to be socially acceptable (Cohen et al., 2011). In the case of classroom incivility it has been highlighted that teachers may fail to acknowledge and be reluctant to report disruptive behaviour due to feelings of incompetence, responsibility, embarrassment and the perception that there is a lack of institutional support (Hernandez & Fister, 2001; Nilson & Jackson, 2004). Furthermore, students may be disinclined to disclose incidence of incivility as they feel incapable of effecting change and believed that they have too much to lose by challenging the situation or expressing discontent (Clark, 2008d). Students and teachers therefore may not be truthful in their reporting of levels of classroom incivility thus affecting the validity or appropriateness of using self-reported methods of collecting incivility data. In contrast to utilising post-experience surveys or interviews the employment of observational methods enable data to be collected in real time in a natural setting and to record actual events as they occur.

Observation can be used to develop a holistic understanding of the phenomena under study (Kawulich, 2005) and to help answer descriptive research questions (DeWalt & DeWalt, 2002). It is particularly useful in enabling the researcher to gather data on the ‘interactional setting’ (Cohen et al., 2011), that is the formal, non-formal, verbal and non-verbal interactions that are taking place. It seems pertinent therefore to utilise observation to address the overall aim of this study: ‘To explore using a mixed-methods approach student incivility in higher education classrooms’. A difficulty, however, with observational research is the potential to collect a great deal of unstructured and unnecessary data and it is crucial therefore to be clear regarding the research questions that guide data collection (Cotton et al., 2010). Specifically the following research questions influenced this phase of data collection: Q1. *What is the prevalence of student incivility in UK higher education classrooms and Q2. What types of student incivility occur in UK higher education classrooms?*
7.2 The process of semi-structured observation

Fundamentally, different approaches to the use of observational methods in research have been employed. Two polarised extremes are unstructured, informal, participant observation, that is an essentially qualitative style, and structured, formal, non-participant observation; that is a quantitative style that counts incidences of events (Robson, 2011; Walshe et al., 2011). Observation as a qualitative data collection technique is used in many fields, particularly anthropology where the ethnographic convention is strong (Hammersley & Atkinson, 2007). The intention is to observe participants in their natural setting, typically in an unstructured form, allowing considerable freedom in what information is gathered and how it is recorded. Traditionally, the researcher immerses themselves in a group for an extended period of time observing behaviour (Bryman, 2012).

As a quantitative data collection technique observation is structured and systematic and coding of behaviours is usually employed. It employs explicitly formulated rules for the observation and recording of data and has conventionally been used within the behavioural sciences, educational and classroom research (Dallos, 2009). The attempt however to categorise interactions or to assess coded data is subject to criticism in that results may be “reliable but not rich” (Coolican, 2009, p.131). This positivist epistemological approach would be criticised by those who promote the holistic view of conducting research within its natural setting.

Whilst structured observation is very systematic and enables the researcher to generate numerical data from observations, unstructured observation allows the researcher considerable freedom in what information is gathered and requires the observer to perform synthesis, abstraction and organisation of data. However, Cohen et al. (2011) suggest that that observation in research lies on a continuum from highly structured to unstructured and that positioned around the midpoint sits semi-structured observation. Semi-structured observation will have an agenda of issues but will also gather data to illuminate these in a far less predetermined or systematic matter (Cotton et al. 2010). Semi structured observations may generate hypothesis and review data before suggesting an explanation for the phenomena being observed. It also enables behaviours to be contextualised (Cohen et al.,
Hopkins (2008) describes a similar process of focused observation, an intermediate positioning between that of open and structured observational classroom research. External sources are utilised to guide the observation and assist in guiding the researcher’s judgement without exerting complete control. Kawulich (2005) reports the value of ‘quantitising’ data, looking for frequencies, together with narrative descriptions of settings, participants, activities and behaviours whilst Wilkinson (2000) suggests focusing on, but distinguishing between, ‘molecular’ and ‘molar’ units of behaviour. Molecular being specific non-verbal behaviours in contrast to molar or larger units driven by the theoretical interests of the research.

Within this study, semi-structured observational methods were employed. This semi-structured approach enabled the observations to focus on specific aspects of the fieldwork, in this case the prevalence of incivilities, whilst allowing wider observations to be recorded and thus permitting further themes to emerge (Cohen et al., 2011). Frequencies of the occurrence of specific student classroom incivilities were recorded for each class observed. The behaviours that were recorded were identified from a consensus of those identified in published literature and in addition to some behaviours that had not previously been reported (see Sections 1.1 and 1.4.2).

Individual acts of incivility were counted as a single discreet incident of incivility, for example student texting or student arrives late. Where incivility was observed to be a group activity, for example ‘other students seen to look at each other and snigger’, or ‘small group laughing and chatting’ this was also counted as one single act of incivility. Cohen et al. (2011) emphasised the need to pre-define behaviours in structured observation. Therefore, and as previously stated, these classroom incivilities were based on a consensus of those that had been identified in previously published studies (Alberts et al., 2010; Al-Kandari, 2011; Appleby, 1990; Ausbrooks, 2011; Boice, 1996; Boyson, 2012; Clark et al., 2010; Gallo, 2012) and are discussed within the literature review (see Section 2.4.1). As the observations progressed over time, a more detailed description of classroom incivility developed. This provided opportunity for recording unscheduled events such as those incivilities previously unreported in published literature and as situations unfolded,
connections, trends and patterns were observed as they occurred over time. It is important to recognise that as an insider-researcher undertaking semi-structured observation decisions related to determining what is observed and what is ignored is based not only personal understanding of the situation but also on knowledge of the particular context of the study; in this case higher education classrooms (Costley et al. 2010). It is acknowledged and discussed in Section 1.4.2 that my interpretation of that which constitutes incivility, specifically within a higher education classroom context is guided by previous experiences as an undergraduate student and currently role as a lecturer within a higher education context. It was crucial therefore to focus the observation on those issues that were germane to the research purpose and questions (Flick, 2014) whilst bearing in mind that when gathering research data that “information is that which an individual perceives as significant” (Sanger, 1996, p.6). Gray (2014) reminds the reader that the interpretation of what is observed by the researcher is invariably influenced by their values, motivations and prejudices. He also points out that we often see what we want to see and disregard behaviours that could be important. De Laine (2000) also draws attention to the fact that in producing field notes from observation, the researcher brings personal meaning to the account created and that data is ‘sieved’ through the observer’s interpretations and understanding of the subject matter. Within this study, this element of personal bias, particularly as a lone researcher collecting data, is mediated by drawing on a consensus of behaviours that are reported as being perceived as uncivil by students and teachers within the internationally published literature on incivility in higher education classrooms.

7.3 The role of the observer
Non-participant, covert observation was employed, the ethics of which have previously been discussed (see Chapter 4). Non-participant observation assumes that the researcher acts as an observer of events without engaging in any of the activities (Cotton et al., 2010) whilst seeking to be unnoticed (Robson, 2011). Cohen et al. (2011) and Creswell (2013) when addressing the role of the researcher in observational studies define four further categories that lie on a continuum of participation. The complete participant conceals their role but engages fully with the group. The participant-as-observer reveals their role and engages as a group member. The observer-as participant’s role is overt and
engagement with the group is peripheral. The complete observer observes covertly
and is detached from group members. Flick (2014) emphasises the challenge of
balancing the two activities ‘participation’ and ‘observation’; becoming integrated
within the group whilst maintaining a big enough distance to remain researcher and
observer.

Within this aspect of the study, in collecting observational data, an observer-as-
participant role was adopted (Cohen et al., 2011). Students were aware of the
presence of the researcher in the classroom however the purpose of their presence
was only partially explained. As ethical approval had been granted for covert
classroom observation of students’ uncivil behaviour, participants were informed
that the researcher was present to collect data utilising the QTIHE at the end of the
taught session. It appeared therefore that students were unaware that they were
being observed. Sanger (1996, p.34) however remains cautious, reminding the
observer that “invisibility is more fantasy than reality, we can minimise our effect but
it would be foolish to claim that we have no effect at all”. Spicker (2011) refers to
this as the issue of ‘invisible reactivity’. Careful positioning within each classroom
therefore aimed to minimise researcher presence whilst maintaining a clear
observational platform. This usually entailed locating to the rear outer aspect of the
class behind the students in both lecture theatres and seminar rooms. Prior to
commencement of the study pilot observations took place in classes of various
sizes and layout to identify the best position to observe from in order to maximise
data collection.

Consent to access classrooms to collect data was obtained from the lecturer prior
to commencement of the class. It is acknowledged that the potential exists for the
behaviour of the lecturer and consequently the students to alter; particularly when
addressing issues of student classroom behaviour. To minimise this possibility
lecturers were reassured that observation and recording of data was confined to
that of the students. This strategy has been utilised in previous studies; Cusick as
cited in Delamont (2002) when observing pupils in an American high school setting
took pains to reassure teachers that he was focusing on the pupils and not the
teachers both with the aim of gaining access to classrooms and also to reduce any
potential influence of researcher presence on teachers’ behaviour.
The process of observational research is not easy and there are areas of potential concern (Sanger, 1996). The first of these is the issue of familiarity for the teacher taking on the role of researcher. The classroom is so familiar that it can become clouded. There is much to be said therefore for self-examination of knowledge, attitudes and prejudices prior to observation, to ‘make the familiar strange’ (Cotton et al., 2010) and to unlearn “that which you have learned to take for granted” (Gomm, 2008, p.273). For some this may act as a brake on the inclination towards unconscious bias (Hopkins, 2008). During the process of classroom observations a conscious effort was required in order to focus on the behaviour of the students and disregard aspects of teaching and teacher. A second concern is ‘selective attention’ (Cohen et al., 2011); that is where we look and what we look at. In larger classrooms it proved more difficult to observe the whole class than in smaller groups. Positioning was crucial to gain the maximum effect or ‘a broad sweep’ (Wolcott, 1981). Throughout the observations the initial focus was on the collection of structured data and frequencies of student incivility and as the data collection progressed patterns of behaviour began to emerge that were subsequently recorded.

Within this study one researcher collected data and this leads to debate on the merits and detriments of this process as observational data collected by the lone researcher raises concerns of potential bias. Wolcott (1995, p.68) presents the issue of believability when a study is carried out by the lone researcher but suggests that a resolution to such concerns lies in the matter of the researcher being ‘open and honest about both the research process itself and the persona of the researcher’. These matters are addressed within this study through a thorough account of data collection and analysis in Section 3.3.2 and Section 8.3 and through reflexive accounts of the researcher’s background and thoughts on the incivility in Sections 1.1 and 1.4.2. Furthermore, this study has been submitted for consideration of a doctoral award and this has enabled the researcher to discuss issues concerning all aspects of the research process pertinent to the study with a team of experienced supervisors rather than working in isolation.

Sarantakos (2013) emphasises some of the essential characteristics for lone researchers when collecting observational data in order to enhance reliability
throughout the data collection phase. These attributes include a thorough understanding of the research topic, knowledge of the participant population and familiarity with the coding utilised. In this study, across the sixteen classes observed, the researcher was the only person collecting the observational data, and was familiar with the published literature on classroom incivility, the specific perceived incivilities that were recorded and the student population within a higher education classroom environment. This criterion was therefore fulfilled.

An additional advantage of one researcher collecting data relates to the alternative option of having additional researchers collecting observational data, which introduces matters of having to ensure inter-rater reliability and can also reduce reflexivity (Delamont, 2002). In addition, the covert nature of observation within this research would be potentially threatened by the presence of multiple observers collecting data, particularly in small classes. It has previously been discussed within this thesis that the behaviours that were observed were drawn from existing published international literature which identified student behaviours that both students and teachers perceive to be uncivil. (see Section 3.3).

Drawing on behaviours that are perceived to be uncivil from the perspective of others addresses to some extent issues of partiality. However, as observation progressed, some perceived uncivil behaviours were also identified that had not previously been acknowledged and in addition patterns related to uncivil behaviour emerged. Wolcott (1981) advocates searching for paradoxes and inconsistencies and states that this is a good strategy for fighting familiarity especially for the insider-researcher such as is the case in this study. Moreover, it is accepted that in this study personal interpretation of that which constitutes incivility, specifically within a higher education classroom context is guided not only by those reported in published literature but also by previous encounters within higher education as both student and lecturer (Section 1.4.2).

Intra-rater reliability is an area that needs consideration when a single researcher is collecting data, as is the case in this study. Intra-rater reliability is the degree of agreement that you have with yourself in recording behaviours across different sessions and high levels of intra-rater reliability can be achieved long as the
researcher is consistent in classifying behaviours according to his or her own definition (Stemler, 2004; Sutton, 2014). Several strategies were therefore identified to maximise intra-reliability and these were adopted as follows. Being specific regarding the inclusion criteria of behaviours that were to be observed during classroom observations prior to data collection was essential. These behaviours were drawn from a consensus of behaviours as cited in existing published literature. An example is that when recording inappropriate use of mobile technology a decision was made before commencing classroom observations to include use of mobile phones, notebooks and laptops. In addition inappropriate use was deemed to include occasions when students were observed to be engaged in activities that were not related to the class such as use of social media (e.g. Facebook) and non-class related web browsing (e.g. internet shopping).

Engagement with published literature and pilot observations prior to primary data collection aided this process of defining the inclusion criteria as did being an insider-researcher and having personal knowledge and experience of the field of research. Utilising a structured notation system within field notes is also regarded as important in supporting consistency and recalling events from prior observations (Gray, 2014) and therefore prior to each classroom observation field notes from previous observations were revisited and this acted as an aide-mémoire of behaviours that had previously been recorded. Moreover, self-collection of data by one researcher added the advantage of familiarisation prior to completion of the observations and therefore aided the subsequent process of data analysis (Section 8.4.2).

7.4 Gaining access
Permission to access classrooms to gather data regarding student incivility utilising classroom observation and the QTIHE proved challenging at times. In this study, teachers delivering the taught sessions for each of the cases were approached for permission to gather data during their classes. Gaining access to communities of practice can be more problematic than gaining formal institutional ethical approval (Costley et al., 2010). Communities of practice can be defined as those formed by workers engaging in a shared domain of activity (Wenger, 1998), in this case higher education teaching. Negotiating access to conduct research within communities of practice requires more from the researcher personally and includes establishing
credibility with gatekeepers that transcend more formal processes (Costley et al 2010). Furthermore, some of the teachers within this study were peers situated within the faculty in which the researcher was employed and therefore had an existing professional relationship. Coghlan and Brannick (2014) highlight that as an insider-researcher, engaging with research that involves peers can be particularly sensitive. Teachers were therefore reassured of the confidential nature of the classroom observations and it was reiterated that the focus of the observations was confined to the students. In addition, teachers were guaranteed that data regarding incivility from classroom observations and data collected regarding students’ perceptions of their interactions of teachers from the QTIHE would be anonymous and confidential. The importance of this assurance cannot be underestimated as teachers were not only being asked for permission to access their classrooms but also in this case their agreement to becoming the subject of aspects of the research study when collecting students’ perceptions of their interactions with teachers (utilizing the QTIHE).

Crucially, all the teachers that were approached regarding access to higher education classrooms stated that they valued research on student incivility and its importance in addressing an issue that they perceived to be problematic in relation to teaching and learning. Despite this support, some teachers refused access and their reasons and potential rationale for this decision will be addressed later in this section.

Discussions about the figure of the gatekeeper typically identify them as individuals or institutions that have the power to either grant or withhold access to a research population (De Laine, 2000). They can play a significant role in research and by providing or denying access may steer the course of a piece of research (Miller & Bell, 2002). Gatekeepers have been identified as being obstructive (Robson, 2011) and Reeves (2010) has argued that gatekeepers can help or hinder research depending upon their personal thoughts on the validity of the research and its value. Likewise, according to Wanat (2008) gatekeepers’ level of cooperation with researchers will often depend on what they perceive to be the benefits and threats to participation in the proposed research. As the issue in question is related to student incivility and students’ perceptions of their interaction with their teacher,
denial of access has the potential to increase bias as those teachers that experience high levels of classroom incivility may be less likely to consent to observation of their classes.

Within this study twenty one teachers across two faculties were approached regarding consent to observe students within their class; of these sixteen teachers gave consent, eight from each faculty. Teachers that did not agree to consent gave several reasons for refusing access to classrooms. These included ‘I don’t feel comfortable’; ‘It’s not the best session as students become upset due to the subject matter’; ‘It’s too stressful as the last group were awful’ and ‘having given it some thought I do not wish to be involved in your research and withdraw my consent for you to join my class’. Given the sensitive nature of classroom incivility it is not surprising that teachers may be reluctant to allow observers into their classes. Hammersley and Atkinson (2007) recognise the existence of ‘troublesome and sensitive’ issues that gatekeepers may wish to steer the researcher away from. Furthermore, as previously discussed, in relation to student incivility, teachers may somehow feel that they are to blame and that the behaviour points to some deficiency in their teaching proficiency (Hirschy & Braxton, 2004). They might also be embarrassed to acknowledge that they are experiencing such behaviour (Morrissette, 2001). Researchers may be treated with suspicion and reticence because of uncertainty about their motives and the subsequent reporting of findings (Bryman, 2012) and participants’ feeling of ‘being spied upon’ (Delamont 2002, p.96).

Creswell (2013) emphasises the importance of building trust and credibility in order to gain entry to fields of research. In this respect being a lecturer within the institution where data was collected proved at times to be advantageous. Familiarity with lectures and being an insider-researcher may have facilitated access as a relationship of trust could be built prior to gaining permission. Conversely however for some lecturers allowing a colleague into a class may have been deemed too intrusive or even threatening. Thus, negotiating access mostly involved reiterating the focus of the research and reassurance that the target of observation was the student cohort rather than the teacher. Moreover, anonymity and confidentiality in relation to data collected from the QTIHE and classroom
observations and their subsequent analysis were a crucial aspect of gaining consent to access classrooms. Guarantees of confidentiality were strengthened, as only one researcher was responsible for collecting and analysing the data.

7.5 Data recording

Data from sixteen classroom observations was recorded in the form of written field notes. A total of 20 hours of observation across 16 classes took place over a period of eleven months and classes ranged in time from 40 minutes to 1 hour 20 minutes. It is acknowledged that any observer can only sustain attention for limited periods of time. According to Hammersley (1995) this something that we do intermittently as it is impossible to maintain passive attention and we compensate by ‘averaging out’ our observations. This proved to be the case, particularly in longer classes where a conscious effort was required to remain attentive and focused. Notes were taken during observation and only one researcher was involved. As students were also taking notes during classes this made the process of writing appear to be less obtrusive and given the nature of covert observation employed, this strategy was of significant and the presence of only one researcher was of some importance. I took note of as much activity as possible; that which Burgess (1984) refers to as ‘substantive’ field notes. As previously explained, semi-structured data was collected during classroom observations. Incidents of specific uncivil behaviours as identified from previously published work were recorded as they took place over the period of the taught session. These were written in text, for example ‘student texting’ or ‘student leaves the room’. As observations progressed some perceived uncivil behaviours that were not previously identified were recorded. In addition, patterns of behaviour that contextualised incivility emerged; an example of this was that a small number of individual students were repeatedly texting. In some cases and as suggested by Wolcott (1995) this note taking included recording patterns of behaviours that were not happening, such as note taking, as well as things that were happening. For instance when students did not engage in classroom tasks. Details were also recorded of the case number, type of classroom: lecture theatre or seminar, the number of students present at the start of the session and the duration of the class. Additional personal notes as recommended by Cohen et al. (2011) and Flick (2014) were also made prior to commencement of observations that contained reflection on issues such as gaining access. The relative subjectivity
of these personal records that were written by me for my own use and therefore of limited use to others is acknowledged (Hammersley & Atkinson 2007).

Most researchers would agree that it is important to record field notes as closely as possible in time to that when events were originally observed. For some this means writing an account at the end of each day, whilst others attempt to record events as they occur in situ or by retiring to a discrete location directly following the observation period. Still others delay the writing of a comprehensive field note until they have left the study site completely. According to Mulhall (2003) there are merits to all these approaches. Schutt (2011) advocates the maintenance of a disciplined transcription schedule. Cohen et al. (2011), Bryman (2012), Flick (2014) and Berg and Lune (2014) stress the importance of this process in enabling reflection and clarification without impeding recall. In this exploratory study, following observation, field notes gathered in class were converted into electronic format as soon as possible and always within twenty-four hours. In addition, in order to enhance intra-rater reliability field notes from previous observations were revisited prior to each classroom observation and this acted an aide-mémoire of behaviours that had previously been recorded (see Section 7.3).

7.6 Quality validation

Quality validation in a mixed-methods study is addressed through examining the reliability and validity of quantitative data and the confirmability, credibility, dependability and transferability of qualitative data.

Within observational research, the adoption of a quantitative, structured, systematic approach traditionally employs measures of reliability and validity (Dallos, 2009). For the purpose of an unstructured, naturalistic approach to studies, writers have searched for and found qualitative equivalents (Creswell, 2013). Qualitative research has garnered much criticism in the scientific ranks for its failure to “adhere to the canons of reliability and validity” (Creswell, 2013, p.245) and absence of ‘standard’ means of ensuring their presence (Robson, 2011) and whilst the flexible nature of qualitative research should be embraced, strategies to ensure the rigour of such studies should be in place (Houghton, Casey, Shaw, & Murphy, 2013). Consensus however has now been reached that in interpretative orientations there
are different questions regarding reliability and validity (Dallos, 2009). Due to the semi-structured nature of this observational enquiry, it seems appropriate to address both perspectives when addressing issues of quality validation.

As indicated, structured, quantitative data was gathered utilising frequency counts of classroom incivilities. Construct validity, namely measuring the concept that we want to measure (Muijs, 2011) was enhanced as pre-defined classroom incivilities were based on a consensus of those that had been identified in previously published studies. Cohen et al. (2011) and Flick (2014) have re-enforced the need to pre-define behaviours in structured observation. During data collection, specific, objective, explicit behaviours were recorded; for example arriving late and texting thus increasing consistency (Cohen et al., 2011; Coolican, 2009). Dallos, 2009). As only one observer was employed in the collection of data the potentially problematic issue of inter-rater reliability between observers (Cohen et al., 2011; Field, 2013; Muijs, 2011) was eliminated and a number of measures taken to maximise intra-rater reliability (see Section 7.3). Furthermore self-collection of data added the advantage of familiarisation prior to completion and analysis.

When examining appropriate standards for qualitative research the terms reliability and validity are avoided and often rejected (Robson, 2011). Carcary (2009) however argues that the concepts of validity, reliability and generalisability can be used for qualitative research although they have to be reinterpreted to reflect the key concerns for the ‘interpretivist’. Many definitions and procedures exist that aim to describe and establish the process of validation in qualitative enquiry (Creswell, 2013; Flick, 2014). Lincoln and Guba as cited in Robson (2011); Creswell (2013) and Flick (2014) suggest confirmability, credibility, dependability and transferability as criteria for qualitative research that they contend adhere more to naturalistic research.

Credibility refers to the value and believability of the findings (Polit & Tatano-Beck, 2014) and involves two processes; conducting the research in a believable manner and being able to demonstrate credibility. One method of increasing the likelihood of credible results is produced by ‘prolonged engagement’ and ‘persistent observation’ within the field of study to gain full insight into the phenomena being
investigated (Flick, 2014). The lack of any new emerging data is evidence that saturation has been achieved (Houghton et al., 2013). In this case a total of 20 hours of observation took place to enable the gathering of data. This allowed a detailed description of patterns of student incivility to be recorded such as sanctioning where students supported, joined in with or failed to rebuke incivility. (See Section 8.4.3)

Some authors advocate using an external colleague or ‘expert’ to support the credibility of findings. The process of peer review involves at least one other suitably experienced researcher independently reviewing and exploring interview transcripts, data analysis and emerging themes. It has been argued that this process may help to guard against the potential for lone researcher bias and help to provide additional insights into theme and theory development (Casey, 2007). However, the usefulness of this approach has been debated in the literature and many researchers feel that the value of this approach is questionable (Houghton et al., 2013) as the interpretative nature of unstructured observation has to be considered. Analysis in qualitative research is an individual, unique process between the researcher and the data (Cutcliffe & McKenna, 2004) and thus, no two researchers will interpret the data in the same way since it is possible that each researcher may interpret the data, or parts of it, differently (McBrien, 2008). Furthermore, if different perspectives are grounded in and supported by the data, this raises the issue of whether one interpretation is necessarily stronger or more valid than the other. The data in this exploratory study was analysed by one researcher. This was advantageous when assuring participants of maintaining confidentiality, when seeking consent to collect data and also when gaining permission from teachers to access their classrooms (see Sections 4.4; 4.5 and 7.4).

Establishing credibility also involves establishing that the results of qualitative research are credible or believable from the perspective of the participant in the research (Farrelly, 2013). In this case however, due to the nature of covert observation, it was not possible to approach the participants after data collection for verification of findings. Furthermore, as a participant-observer, the relevance of validating data with participants is questionable as the methodological focus is that
of “outside looking in” (Cotton et al., 2010, p.465) and the researchers interpretation of what they are observing.

Transferability refers to the extent that the account can be applied to other people, times and settings other than those actually studied. (Houghton et al., 2013) In terms of qualitative research, transferability is based on the assumption that it is useful to begin to understand similar situations or people, rather than being representative of the target population (Dawson, 2009). This is usually achieved by defining, in detail, the kind of settings and types of people to whom the explanation or theory applies. The responsibility of the researcher lies in providing detailed descriptions for the reader to make informed decisions about the transferability of the findings to their specific contexts (Bogdan & Biklen, 2003; McKee, 2004). The emphasis should be on creating “thick descriptions” (Creswell 2011, p.246), including accounts of the context, the research methods and examples of raw data so that readers can consider their interpretations (Dawson, 2009). Although the researcher can make suggestions about generalisability, ultimately the reader can decide whether or not the findings are transferable to another context (Graneheim & Lundman, 2004). A rich and vigorous presentation of the findings, with appropriate quotations, also enhances transferability (Graneheim & Lundman, 2004).

Details of the cases under study and their inclusion criteria are clearly stated within the methodology section (Section 3.2). In the results chapter (Chapter 9) detailed and appropriate descriptions are offered so that readers can make informed decisions about the applicability of the findings to specific contexts. The necessary details include accounts of the context and examples of raw data so that alternative interpretations can be considered. For this purpose, direct examples of behaviours from the unstructured observation are included. In addition, in the analysis section (Section 8.4.5) excerpts from the field notes show how the themes developed from the data.

Dependability is checked through the process of auditing (Creswell, 2011; Flick, 2014). An audit trail is a clear, visible account of the process of the research (Dallos, 2009). It can be achieved by outlining the decisions made throughout the
research process to provide a rationale for the methodological and interpretative judgements of the researcher. It entails the notion that a complete documentation of data recording activities is kept, including field notes where appropriate, development of definitions categories and themes during data analysis and methodological notes. Ryan-Nicholls and Will (2009) believed that while readers may not share a researcher’s interpretation, they should nonetheless be able to discern the means by which it has been reached. In this study, field notes were maintained both in their original format and electronic copies and a detailed description of the qualitative data analysis process is given in Section 8.4.5.

7.7 Conclusion
The use of observational methods adds a different perspective to the growing corpus of research into classroom incivility. As the tool of data collection the researcher’s role has been clearly recognised and areas for potential bias identified. The process of comprehension and clear recording of data is fundamental to the process of data analysis and methods related to this have been made transparent. The issue of access to research can be problematic and therefore strategies to address these difficulties have been considered and adopted. When contemplating quality mechanisms areas of reliability and validity of quantitative data and the confirmability, credibility, dependability and transferability of qualitative data have been addressed and thus give the research a necessary robustness.

7.8 Chapter summary
This chapter has focused on the process of semi-structured observation for collecting quantitative and qualitative data within this exploratory enquiry. A rationale has been offered for selecting this approach and its originality as a methodology has been emphasised. The challenges that were encountered related to gaining access to classrooms have been highlighted and the role of the observer has been discussed, including level of participation and bias awareness. Ethical issues pertinent to gaining access to classrooms, confidentiality are addressed. Data recording procedures have been explained and the matter of collecting data as a lone researcher, including enhancing intra-rater reliability is explored. Finally,
the issue of quality validation of both quantitative and qualitative data collection within this process has been addressed.
Chapter 8 Case study data analysis

8.0 Chapter outline
This chapter will outline the method of data analysis used within a concurrent mixed-methods study design (Creswell & Plano Clark, 2011), which is pertinent to this study (see Section 3.1.2). Data analyses utilised a two-stage approach as described by Creswell and Clark (2007). (see Section 3.1.3). The first step in this approach involves preparing, exploring, analysing and presenting quantitative and qualitative data separately followed by comparing or relating quantitative and qualitative data. In this chapter, stage one commenced and the process of data preparation, exploration and analysis will be discussed. Stage one was completed, as was stage two in Chapter 9, Section 9.8 where results of the study are presented.

The steps of data analysis will be presented as follows. Firstly, analysis of quantitative data collected utilising the QTIHE. Secondly, the process of analysing data from semi-structured classroom observations through mixed-methods content analysis will be detailed followed finally by the steps taken to integrate quantitative results from classroom observations with those of the QTIHE.

8.1 Quantitative data analysis of the QTIHE
The results of quantitative data analysis of the QTIHE are utilised in conjunction with quantitative data analysis from classroom observations to address Research Question 3 ‘What is the relationship between students’ perceptions of student-teacher interaction and classroom incivility in higher education?’

Following each classroom observation, students were asked to complete the QTIHE, recording their perceptions of their interactions with the teacher that had facilitated the class during that period. For each of the four cases in the study the group of students was observed on four separate occasions and therefore completed the QTIHE four times. This resulted in completion of the QTIHE on 16 occasions in total (4 classes x 4 cases).
8.1.1 Quantitative data preparation

Questionnaires were checked and any partially or totally incomplete returns, 8 in total, were discarded prior to analysis. The results of the QTIHE were entered into IBM SPSS Statistics v20 for analysis.

8.1.2 Data exploration

The dataset was visually inspected to ensure that no missing values were present, this was to ensure that all data had been inputted. The number of respondents for each class was recorded. The number of respondents completing the QTIHE was important as class size varied within each case and this has been identified as being related to classroom incivility within the published literature (Section 3.2).

8.1.3 Data analysis

The use of descriptive statistics, means and standard deviations were employed to describe students’ perceptions of interactions with their teachers. Descriptive statistics (Check & Schutt, 2012) can be utilised to depict trends in the data to a single variable (Creswell, 2013) and enable the creation of profiles (Newby, 2014) in this case of teachers’ interactions with their students.

The standardised mean scores and standard deviations for each individual lecturer across the five scales of the QTIHE were computed by dividing mean scores by the number of scale items. Means were standardised as the number of items on each scale varied. This made scores comparable across the scales. The grand mean, across the scales for all teachers was also computed to allow comparison of overall scores with that of individual teachers.

Cronbach’s alpha coefficient was computed for each QTIHE scale as a measure of internal consistency. Reliability means that a scale should consistently reflect the construct that it is measuring. Internal consistency relates to the degree to which respondents answer related items in similar ways (Muijs, 2011). Reliability was measured for factors of the QTIHE for individual teachers, by case and across all cases. The results of this analysis are reported in Section 9.4.
8.2 Qualitative and quantitative data analysis: A mixed-method analysis

The results of mixed-methods data analysis were specifically utilised to address Research Question 1 ‘What is the prevalence of student incivility in UK higher education classrooms?’ and Research Question 2 ‘What types of student incivility occur in UK higher education classrooms?’

Despite an increase in published guidance on analysing data in mixed-methods studies (Onwuegbuzie & Leech, 2011) the complexity of mixed-methods designs entails the researcher adopting a pragmatic approach to selecting an appropriate method of analysis.

The issue of analysing data from the semi-structured classroom observations is complex as it involves the integration of quantitative and qualitative analytical strategies. As discussed previously (see Section 3.1.3), this study adopts a mixed-methods approach in addressing the aim of the research. The mixed-methods aspect in this case is identified within the data collection, data analysis and results phases. The purpose for mixing the quantitative and qualitative data in this study is complementary (Sale et al., 2002; Greene, 2008), that is, results from the qualitative analysis are used to enhance and expand the results of the quantitative analysis. During observations both quantitative and qualitative data were assimilated in the form of frequency counts and the identification patterns of behaviour related to classroom incivilities. A mixed methods approach to the analysis of observations offers several advantages. These include the ability not merely to test for the presence of a predefined cluster of behaviours but also for the detection of a set of ideas or themes that may reflect new or unanticipated trends (Creamer & Ghoston, 2013). Consequentially, analysis of this data is mixed-methods in nature.

Creswell and Plano Clark (2011, p.212) define mixed-methods data analysis as “consisting of analytical techniques applied to both the quantitative and qualitative data concurrently or sequentially in a single project”. Similarly, Onwuegbuzie and Combs (2010) state that mixed-methods analysis involves the use of quantitative and qualitative analytical techniques within the same framework. Traditionally, as noted by Creswell and Plano Clark (2011), data analysis in mixed-methods consists of analysing the quantitative data using quantitative methods and the qualitative
data using qualitative methods. The mixed-methods analysis in this case is design based (Onwuegbuzie & Combs, 2010) in that it is directly linked to the mixed-methods, concurrent design. Analysis of quantitative and qualitative data is conducted simultaneously from observational field notes.

Another important aspect of mixed-methods analysis is the priority or emphasis that is given to both components. There are three possible weighting options, equal priority, quantitative priority and qualitative priority (Creswell & Plano Clark, 2011). Castro, Kellison, Boyd and Kopak (2010) describe a truly integrative approach to mixed-methods analysis where equal emphasis is given to qualitative and quantitative data forms to facilitate rich, deep structure data analyses and interpretations. In this case the qualitative and quantitative analysis components of the classroom observations are given equal status.

8.3 Qualitative and quantitative content analysis of semi-structured classroom observations.

Quantitative and qualitative data from semi-structured classroom observations were analysed by one researcher using a mixed-methods content analysis. The merits and challenges of a lone researcher conducting an enquiry have previously been discussed in Section 7.3. Furthermore, issues related to the lone researcher conducting data analysis have been addressed within quality validation issues in Section 7.6. Within this study one further important aspect of one researcher analysing data was the ability to ensure confidentiality to participants (Section 4.4) and also to teachers when obtaining permission to access their classrooms (Section 7.4). This aspect of confidentiality was particularly pertinent as the researcher was also conducting the study within their organisation of employment (Section 3.3.3)

Content analysis is defined as a method of analysing written, verbal or visual communication messages (Gerbic & Stacey, 2005) and a summarising, quantitative analysis of messages that relies on a scientific method (Neuendorf, 2002). Content analysis is a systematic and objective means of describing and quantifying phenomena (Krippendorff, 2004) and a systematic coding and categorising approach used for exploring large amounts of textual information to determine
trends and patterns of words and their frequencies (Pope, Ziebland, & Mays, 2000; Gbrich, 2007). Although all of these definitions place importance on the systematic approach to analysing textual data, perhaps the most appropriate for this study is the latter with its emphasis on applicability to both quantitative and qualitative methods.

Content analysis is used to attain a broad description of phenomena (Neuendorf, 2002; Elo & Kyngas, 2008), conduct exploratory work (Hsieh & Shannon, 2005) and investigate behaviour and attitudes (Vaismoradi et al., 2013). In this case content analysis is used to explore and describe types and patterns of student incivility.

Traditionally, two polarised types of content analysis are depicted ranging from intuitive and interpretive to strict, systematic analyses (Hsieh & Shannon, 2005). The specific type of content analysis approach chosen varies with the theoretical and substantive interests of the researcher and the issue being studied (Weber, 1990). Content analysis may be used in an inductive or deductive way. If there is little understanding about the phenomena, or if knowledge is fragmented, the inductive approach is recommended. This type of qualitative content analysis examines text intensely for the purpose of identifying an efficient number of categories that represent similar meanings (Weber, 1990). Deductive content analysis is used when the structure of analysis is operationalised on the basis of previous knowledge (Lauri & Kyngas, 2005). In this quantitative analysis, text is coded into explicit categories and then described using statistics (Bryman, 2006). The approach to content analysis used in this study is positioned between these two opposing extremes and requires a more innovative stance as knowledge on incivility in higher education is evolving, yet still in an embryonic stage.

An appropriate solution is offered by Heish and Shannon (2005) who identify three distinct approaches to content analysis: conventional, directive and summative. Conventional content analysis aims to describe a phenomenon. This type of design is appropriate when existing theory is limited. Pre-conceived categories are avoided, instead they are allowed to flow from the data. This is based on inductive reasoning, moving from specific observations to broader generalizations and
theories. Directed content analysis is used to validate existing conceptual frameworks with existing theory directing the research question. Key concepts or variables are identified and used as initial coding categories. This fits with models of deductive reasoning that is utilised when a researcher works from the more general information to the more specific. To begin with, summative content analysis focuses on counting the frequency of certain words or content within the text. If the analysis stopped at this point it would be quantitative, however a summative content analysis goes beyond this to the process of interpretation of content and contextualisation.

This summative form of content analysis could be interpreted as utilising a mixed-methods approach that is analysing qualitative and quantitative data from the same data set (Leech & Onwuegbuzie, 2011) For the purpose of this study a mixed-methods content analysis is used as described in the next section.

8.4 The process of mixed-method content analysis
Elo and Kyngas (2007) describe three phases in the process of content analysis: preparation, organisation and reporting. This content analysis process can be equally applied to the quantitative and qualitative aspects. This is similar in structure to the two-stage model suggested by Creswell (2003) and utilised in this study. As discussed previously, the following steps of stage one will be included here: Data preparation, exploration and analysis.

Although collection of data for quantitative and qualitative data took place simultaneously, for the purpose of clarification analysis of both elements will be addressed individually.

8.4.1 Quantitative data preparation
As reported, field notes from classroom observations were transferred to electronic format within twenty-four hours of observation. On completion of observing 16 classes over a period of 20 hours a comprehensive data set was in existence.
8.4.2 Quantitative data exploration

The field notes were repeatedly read to obtain a sense of the depth and breadth of the content. Self-collection of data added the advantage of familiarisation prior to completion. The importance of this aspect of data collection, related to a lone researcher undertaking classroom observation is previously identified in Section 7.3. The importance of this process of ‘repeated reading’ has been well documented as the first step in the analysis of any textual data (Braun & Clark, 2006; Bryman, 2008; Elo & Kynglas, 2008; Schutt, 2011; Taylor-Powell & Renner, 2003).

A crucial element of quantitative content analysis is that the units of analysis are sufficiently precise to enable coders to consistently arrive at the same results (Silverman, 2006); a unit being a precise word or phrase (Krippendorff, 2004). Pre-defined units of analysis for the quantitative element of the analysis had been selected prior to data collection and were based on the consensus of behaviours that students and teachers perceived to be detrimental to teaching and learning within the internationally previous published studies on classroom incivility (See section 1.4.2). Units consisted of specific behaviours such as texting, chatting, laughing and arriving late. Additional units were added as observations progressed and behaviours previously not cited were identified and it is acknowledged that these behaviours were based on my personal perception of students’ classroom incivility (See section 1.4.2). Initial units that were identified from field notes are displayed in Table 12. Examples include: student leaves the room; 2 students are chatting loudly; a student is texting; a student is heard yawning loudly.

8.4.3 Quantitative data analysis of classroom observations

The process of analysis of data consisted of identification of units of analysis, designation of codes and formation of categories. Initial coding and categorisation was conducted across all data sets that is data from all classroom observations. Data was interrogated and analysed personally as I had conducted the classroom observations myself. This meant that I had a significant level of familiarity with the data and importantly this included the context within which behaviours had been recorded. In addition, my position as insider-researcher meant that I had knowledge of the field of practice where data collection had taken place, that is higher
education classrooms, and this enabled a deeper understanding of the meaning of the data to be obtained.

Units were highlighted within the text and the process of coding was initiated. Coding is the process of labelling data as a first step in analysis (Flick, 2014). Codes identify a feature of the data that is of interest to the analyst (Braun & Clark, 2006), brings meaning to words and phrases (Taylor-Powell & Renner, 2003) and are collated under potential subcategories (Vaismoradi et al., 2013). In quantitative analysis a coding and categorisation matrix based on earlier work can be used (Hsieh & Shannon, 2005) however, in the case of classroom incivility, although such categories exist, they are not deemed appropriate due to a lack of rigour in their development. Therefore new categories were developed during this analysis. This phase of analysis proved labour intensive and involved constantly revisiting the text and assigning abbreviated codes to units of data. Codes were constantly reviewed which is common practice as units of data can often be coded in more than one way (Bryman, 2008) and initially a large number of codes can be generated (Charmaz, 2006). The number of codes however is eventually reduced (Richards, 2009). Examples of units and assigned codes are given in Table 12. Examples include: Students started to pack up before the teacher had finished [PACK], Some students heard to be ‘off task’ [OFFT], Student browsing the Internet on notebook. Looking at a retail website [WEB].

Elo and Kyngas (2007) stress that categories are not simply bringing together observations that are similar; instead data is classified as ‘belonging’ to a particular group. Codes are clustered together (Vaismoradi et al., 2013) into meaningful groups (Patton, 2002). Dependent on the purpose of the study codes might be categorised based on concurrence, antecedents or consequences. (Hsieh & Shannon, 2005). Codes were analysed to consider how they might form an overarching theme and sorted into ‘candidate categories’ (Braun & Clarke, 2006).

A process of refining, combining, and discarding then took place, which necessitated repeatedly revisiting the codes and categories. During this process of ‘iteration’ (Schutt, 2011; Taylor-Powell & Renner, 2003) it became evident that some candidate themes were too diverse or had not got enough data to support
them. The latter is a contentious issue in relation to what counts as a pattern or cluster and what size a category need to be. Braun and Clarke (2006) suggest that although ideally there will be a number of instances of codes across the data set, increased prevalence does not necessarily mean that the category is more crucial. In this analysis the eventual number of codes within categories varied with one category containing one code (personal attacks) however four units were included and these were deemed to be meaningful in the context of the research aims. When developing categories, Patton’s (2002) dual criteria for judging categories was considered; that is internal homogeneity and external heterogeneity. Data within categories should cohere together meaningfully while there should be clear and identifiable distinctions between themes.

A second issue that arose in defining categories was that of mutual exclusion, which allows coding of data to only one category (Flick, 2014). In the context of quantitative content analysis, this was seen as significant, as duplication of codes in categories could affect the results of the exploration of the prevalence of incivility later in the analytical process. A decision therefore was made into which category a code belonged when the potential to place in more than one category arose. This entailed a degree of interpretive judgement. An example of this is the unit ‘student asleep’ [SLEEP], this could equally be assigned to the category of signalling or disengagement. In this case the code was thought to fit best with the category description of the latter as to belong in the former the behaviour would be deliberate in nature.

When labelling categories, it is acknowledged that each researcher interprets the data according to their subjective perspective (Hoskins & Mariano, 2004; Elo & Kyngas, 2007) and that there is no simple ‘right way’ (Weber, 1990). On completion of the organisation stage of quantitative content analysis seven categories were formed: Time, Talk, Disengagement, Technology, Signalling, Domination of discussion and Personal attacks. Table 12 presents the units, codes and categories for quantitative content analysis whilst Table 13 shows descriptions of the seven final categories. These descriptors are crucial when deciding which codes to assign to categories (Hsieh & Shannon, 2005).
Following the process of coding and categorisation, the frequency of the occurrence of codes was measured for within each case in order to address the research question related to prevalence of classroom incivility. The codes were then categorised to give the prevalence of each category both within and across cases. The weighted frequency of categorised incivility for each case was also computed to account for disparity in class size. Weighted frequency was computed by dividing the frequency of categorised incivility by the number of participants in each case (\( f/n \)). The weighted frequencies will be referred to when discussing prevalence of incivility. The frequencies of quantitative categories were further used to correlate the relationship between incivility and students’ rating of teacher interactions. These results are presented in the results section (see Section 9.7).

Table 12. Quantitative content analysis: Units, codes and categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples of extracted words/phrases [codes]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME</td>
<td>There were three latecomers [LATE]</td>
</tr>
<tr>
<td></td>
<td>2 students arrived late [LATE]</td>
</tr>
<tr>
<td></td>
<td>Students started to pack up before the teacher had finished talking [PACK]</td>
</tr>
<tr>
<td></td>
<td>Students packing up whilst being given a task for the next class [PACK]</td>
</tr>
<tr>
<td></td>
<td>Student leaves the room [LEAVES]</td>
</tr>
<tr>
<td></td>
<td>Student returns to the class [RETURNS]</td>
</tr>
<tr>
<td>TALK</td>
<td>Low level chatting [CHAT]</td>
</tr>
<tr>
<td></td>
<td>2 small groups of students are laughing and chatting [LAUGH/CHAT]</td>
</tr>
<tr>
<td></td>
<td>A group of students are laughing whilst the teacher was talking [LAUGH]</td>
</tr>
<tr>
<td></td>
<td>Students are laughing and joking whilst the teacher is explaining an aspect of physiology [LAUGH]</td>
</tr>
<tr>
<td></td>
<td>2 students are chatting loudly [CHAT]</td>
</tr>
<tr>
<td></td>
<td>A group of students are whispering [WHISP]</td>
</tr>
<tr>
<td></td>
<td>A group of students giggling at the back of the classroom [GIG]</td>
</tr>
</tbody>
</table>
DISENGAGEMENT

The group appears passive and disinterested [PASS]
Some students are heard to be ‘off task’ [OFFT]
3 students are looking at a module handbook whilst other students are engaged in a task [DIST]
The students are given a task. Instead of engaging in the task one student gets diary out and another student on the same table passes a copy of the timetable. [DIST]
No one is taking notes [NOTES]
Limited feedback is taken from the students [FBACK]
Very little note taking from students [NOTES]
Students are not responding to questions from the teacher [RESP]
Student is throwing paper missiles at students positioned in the row in front [DIST]
A student has her head on the desk and her eyes closed [DISE]
Students appear to be distracted less attentive [ATT]
2 students put their heads on the shoulders of the student in the middle and close their eyes. [DISE]
2 students have their heads in their hands with their eyes closed [DISE]
A student is filling in her diary whilst fellow students in the group are completing a task given by the teacher [DIST]
Student asleep [DISE]

TECHNOLOGY

Student texting [TEXT]
Student looking at dresses on a website on her notebook [NOTEB]
A student is looking at photographs on notebook [NOTEB]
A phone heard to ‘buzz’ with incoming text message [TEXT]
One student is using the mirrored screen on her phone to apply make up [DISE]
A student is scrolling the Internet on notebook [WEB]
One student has been using his phone since the beginning of the lecture. Texting and scrolling social media websites [TEXT/WEB]
A student browsing the retail websites on the internet on
<table>
<thead>
<tr>
<th>SIGNALLING</th>
</tr>
</thead>
<tbody>
<tr>
<td>A student heard to sigh loudly [SIGH]</td>
</tr>
<tr>
<td>Some sighing and yawning from several students within the last ten minute period of the class [SIGH/YAWN]</td>
</tr>
<tr>
<td>A student is heard yawning loudly [YAWN]</td>
</tr>
<tr>
<td>A student yawns loudly and stretches [YAWN]</td>
</tr>
<tr>
<td>Several students are yawning and looking disinterested [YAWN]</td>
</tr>
<tr>
<td>A student is heard to say loudly ‘this is too much’ as the session runs over [COMM]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DOMINATION OF DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A mature student is now dominating the discussion and answering all the questions [DOM]</td>
</tr>
<tr>
<td>One of the mature students is answering most of the questions. [QUES]</td>
</tr>
<tr>
<td>3 mature students sitting at the front are answering all of the questions. Other students are no longer responding [QUES]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERSONAL ATTACKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>One student heard to say loudly and with reference to the teacher ‘no one is answering. She’s just standing there looking lost’. The students around her then laugh [PERS]</td>
</tr>
<tr>
<td>One student is discussing material from the lecture and relating it to her own personal experiences. Other students seen to look at each other and snigger. [PERS]</td>
</tr>
<tr>
<td>One student makes a joke about her example and other students laugh. [PERS]</td>
</tr>
<tr>
<td>Mature student makes the comment ‘I’m not interested in’. Another student is heard to comment ‘oh, she’s not interested in’. Students next to her then laugh [PERS]</td>
</tr>
</tbody>
</table>
Table 13. Quantitative content analysis: Category descriptions

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME</td>
<td>Issues of time relate to the beginning and end of the lecture/seminar, for example students arriving late and behaviour related to the intended finish time such as preparing to leave before the session had ended. It also includes students leaving and returning to the class during the session.</td>
</tr>
<tr>
<td>TALK</td>
<td>Overt verbal behaviour such as episodes of talking, chatting, laughing.</td>
</tr>
<tr>
<td>DISENGAGED</td>
<td>When students are displaying individually or as a group behaviours that may indicate that they are not engaged with the teacher or content of the lecture/class.</td>
</tr>
<tr>
<td>TECHNOLOGY</td>
<td>When students use technology in class for purposes other than those that are supporting learning.</td>
</tr>
<tr>
<td>SIGNALLING</td>
<td>When students are displaying deliberate, overt signs of disengagement with teaching and learning.</td>
</tr>
<tr>
<td>DOMINATION OF DISCUSSION</td>
<td>Individual or group domination of classroom-based discussion.</td>
</tr>
<tr>
<td>PERSONAL ATTACKS</td>
<td>When students verbally or non-verbally attack contributions made by other students or the teacher during the class.</td>
</tr>
</tbody>
</table>

8.4.4 Qualitative data preparation

The initial process of qualitative data preparation is fundamentally different from that of quantitative data analysis (Krippendorff, 2004). In an interpretative approach, it becomes necessary to probe beneath the surface to ask deeper questions about what is happening. This can be referred to as exploration of concealed or latent content (Braun & Clarke, 2006; Bryman, 2012; Flick, 2014).
Field notes were converted to electronic format as described previously and were read several times to obtain familiarisation with the content.

8.4.5 Qualitative data exploration
In contrast to quantitative content analysis where codes are pre-defined (Silverman, 2006), in qualitative content analysis researchers avoid using preconceived behaviours, codes or categories, instead allowing these emergent categories (Vaismoradi et al., 2013) to flow from the data Kondracki & Wellman, 2002). In this study predefined behaviours were utilised for the quantitative content analysis, however for the qualitative element, patterns or codes emerged during data collection and analysis.

8.4.6 Qualitative data analysis
The development of patterns began to emerge during classroom observations. This process, that begins as data is being collected rather than after it has ceased, is recognised in many aspects of qualitative data analysis (Braun & Clark, 2006; Flick, 2014; Schutt, 2011). Silverman (2006) states that one of the strengths of observational research is the ability to shift focus as new data becomes available. This was evident as patterns of behaviour began to materialise and within the field notes commentary was made relating to the emergence of categories. On completion of data collection, the field notes were repeatedly read as described previously (See Section 8.4.1). In conjunction with identifying the pre-defined behaviours, codes were created to eventually form new categories that described patterns and types of behaviour that began to contextualise the behaviours and thus student incivility. This simultaneous quantitative and qualitative content analysis forms an integral part of the mixed-methods framework in this study.

8.4.7 Qualitative data organisation
During qualitative data analysis ‘open coding’ was used where notes and headings were written in the text during both data collection and the reading process (Elo & Kyngas, 2007; Hsieh & Shannon, 2005; Schutt, 2011). The process of highlighting ‘repeated ideas’ (Auerbach & Silverstein, 2003) from text and notes began. The interpretive nature of qualitative analysis is stressed at this point where there is ‘no true or false’ amongst many different interpretations (Patton, 2002); this related to
both the development of codes and categories (Elo & Kyngas, 2007). As previously discussed within the thesis these patterns of behaviour that began to emerge as the observations progressed will undoubtedly by influenced by personal prior experiences of being an undergraduate student and teacher within a higher education context (See Section 1.1). As will also be discussed in the following chapters these patterns serve to recognise that teachers can utilise student classroom behaviours that have been identified in the published literature as being uncivil to reflect on their teaching practice (see Sections 1.4.2; 11.4).

Codes were assigned to segments of text from field notes that were of integral interest to the research aims (Braun & Clarke, 2003). For example: male student identified earlier continually texting [SAME], Student using phone shows picture to student next to her who laughs [NEAR], This same student had left in the previous lecture [SAME]. Examples of units and assigned codes are given in Table 14. Categories were developed using a similar process to develop categories for the quantitative content analysis (See Section 8.4.2). Four categories of behaviour were identified that added a contextual element to the quantitative analysis: Positioning, Engagement, Sanctioning and Persistent Incivility. These categories are defined in Table 15 and are further discussed in the results section (see Section 9.6).

Table 14. Qualitative content analysis: Units, codes and categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples of extracted words/phrases [codes]</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSITIONING</td>
<td>Some are chatting in the back row [BACK]</td>
</tr>
<tr>
<td></td>
<td>2 students sitting at the back are texting [BACK]</td>
</tr>
<tr>
<td></td>
<td>Non-traditional students are sitting together at the front [FRONT]</td>
</tr>
<tr>
<td></td>
<td>One student is eating near the back [BACK]</td>
</tr>
<tr>
<td></td>
<td>Some are talking at the back of the class [BACK]</td>
</tr>
<tr>
<td></td>
<td>A small group of students at the back are giggling [BACK]</td>
</tr>
<tr>
<td></td>
<td>Students at the front are asking lots of questions [FRONT]</td>
</tr>
<tr>
<td>ENGAGED</td>
<td>There is lots of note-taking at the start of the class [NOTES]</td>
</tr>
<tr>
<td></td>
<td>Most of the students are taking notes [NOTES]</td>
</tr>
</tbody>
</table>
All of the students appear attentive [ATT]
Students are responding to questioning [RESP]
Students are heard to be ‘on task’ [ONT]
Students are responsive to questions [RESP]
Students are engaged in discussion with the teacher [ENG]
Students are contributing to feedback [FBACK]
Students fed back from the task [FBACK]
Lively interactive discussion between students and teacher [INT]

<table>
<thead>
<tr>
<th>PERSISTENT INCIVILITY</th>
<th>3 students are chatting. These are the same students as identified earlier [SAME]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This same student had left the room in the previous lecture [SAME]</td>
</tr>
<tr>
<td></td>
<td>A male student identified earlier is continually texting [SAME]</td>
</tr>
<tr>
<td></td>
<td>A student on her phone is the same student as before [SAME]</td>
</tr>
<tr>
<td></td>
<td>Student texting. This is student [4] from morning session [SAME]</td>
</tr>
<tr>
<td></td>
<td>The same student is texting again [SAME]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SANCTIONING</th>
<th>A Student using her phone is showing a picture to a student next to her who laughs [NEAR]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One student is seen to flick an elastic band at another student on the same table [NEAR]</td>
</tr>
<tr>
<td></td>
<td>One student gets her diary out. Another student on the same table passes her a copy of the timetable. These students are sitting either side of the student who flicked an elastic band earlier [NEAR]</td>
</tr>
<tr>
<td></td>
<td>One student has packed her notebook away. This student is amongst the group of 3 sitting together. The male student in the middle is texting and the 3rd student has taken no notes and looks disinterested [NEAR]</td>
</tr>
<tr>
<td></td>
<td>Student 1 is texting. Student 8 sitting next to student 1 is also texting [NEAR]</td>
</tr>
<tr>
<td></td>
<td>A student using her phone shows pictures to a student sitting next to her who laughs [NEAR]</td>
</tr>
<tr>
<td></td>
<td>Another student on the same table passes round a copy of the timetable [NEAR]</td>
</tr>
<tr>
<td></td>
<td>These students are on the same table as the male student identified earlier as constantly texting [NEAR].</td>
</tr>
</tbody>
</table>
### Table 15. Qualitative content analysis: Category description

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSITIONING</td>
<td>Where students are physically located within the context of the lecture theatre or classroom. Where students are positioned in relation to other students who are exhibiting or joining in with classroom incivility.</td>
</tr>
<tr>
<td>ENGAGED</td>
<td>When students are displaying individually or as a group behaviours that may indicate that they are engaged with the teacher or content of the lecture/class</td>
</tr>
<tr>
<td>PERSISTANT INCIVILITY</td>
<td>When individual students are identified as repeatedly engaging in classroom incivilities</td>
</tr>
<tr>
<td>SANCTIONING</td>
<td>When students support, join in with or fail to rebuke incivility. May involve group act</td>
</tr>
</tbody>
</table>

#### 8.5 Correlation of quantitative content analysis and QTIHE results.

To address research question 3 ‘*What is the relationship between students’ perceptions of student-teacher interaction and classroom incivility in higher education?*’ the frequency of incivilities for each class was correlated with the QTIHE scores for the teacher that had facilitated that session.

This was to enable associations to be made between levels of incivility and students’ perceptions of teachers within individual classrooms. Comparisons could then also be made between classes. Frequencies were correlated with each of the five factors of the QTIHE: Teachers' positive personal attributes, Uncertain, Dissatisfied, Student-focused Teaching and Strict. Data was entered into IBM SPSS Statistics v20 and Pearson’s correlation coefficient, Pearson’s $r$, was used as a measure of the strength of relationship between variables. Correlations were computed utilising weighted frequencies to account for differences in class size.
Furthermore, analysis took place at the classroom level and QTIHE scores were aggregated per class. The results of this analysis are presented in Section 9.7.

8.6 Chapter summary
This chapter has outlined the analysis of quantitative and qualitative data within a mixed methods framework using the first stages of a two stage approach. The process has been thought provoking, as few frameworks exist to support specific analytical approaches. The complex nature of using a multi-case study approach within a mixed-methods framework has added further challenges. Issues of quality validation have been addressed by the application of tests of reliability during quantitative data analysis and issues of transferability have been considered by ensuring a clear detailed description of analytical qualitative data processes.
Chapter 9 Case study results

9.0 Chapter outline
This chapter will set out the results of the study. They will be presented in the following order: response rate, tests of reliability, quantitative analysis related to the QTIHE, quantitative data results from classroom observations, qualitative data results from classroom observations, the correlation between the quantitative data from classroom observations and results from the analysis of the QTIHE and finally integration of quantitative and qualitative results from classroom observations.

9.1 Response rate.
Table 16 represents the number of participants by class.

<table>
<thead>
<tr>
<th>Class</th>
<th>Number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1 lecture 1</td>
<td>72</td>
</tr>
<tr>
<td>Case 1 lecture 2</td>
<td>50</td>
</tr>
<tr>
<td>Case 1 lecture 3</td>
<td>57</td>
</tr>
<tr>
<td>Case 1 lecture 4</td>
<td>63</td>
</tr>
<tr>
<td>Case 1 mean class size</td>
<td>60.5 (SD=9.32)</td>
</tr>
<tr>
<td>Case 2 lecture 1</td>
<td>64</td>
</tr>
<tr>
<td>Case 2 lecture 2</td>
<td>60</td>
</tr>
<tr>
<td>Case 2 lecture 3</td>
<td>61</td>
</tr>
<tr>
<td>Case 2 lecture 4</td>
<td>83</td>
</tr>
<tr>
<td>Class 2 mean class size</td>
<td>67.0 (SD=10.8)</td>
</tr>
<tr>
<td>Case 3 lecture 1</td>
<td>21</td>
</tr>
<tr>
<td>Case 3 lecture 2</td>
<td>24</td>
</tr>
<tr>
<td>Case 3 lecture 3</td>
<td>22</td>
</tr>
<tr>
<td>Case 3 lecture 4</td>
<td>25</td>
</tr>
<tr>
<td>Case 3 mean class size</td>
<td>23.0 (SD=1.82)</td>
</tr>
<tr>
<td>Case 4 lecture 1</td>
<td>26</td>
</tr>
<tr>
<td>Case 4 lecture 2</td>
<td>12</td>
</tr>
<tr>
<td>Case 4 lecture 3</td>
<td>18</td>
</tr>
<tr>
<td>Case 4 lecture 4</td>
<td>20</td>
</tr>
<tr>
<td>Case 4 mean class size</td>
<td>19.0 (SD=5.77)</td>
</tr>
<tr>
<td>Total</td>
<td>678</td>
</tr>
<tr>
<td>Mean class size</td>
<td>42.3 (SD=22.5)</td>
</tr>
</tbody>
</table>

*Note: Case 1 = Non-professional large group, Case 2 = Professional large group, Case 3 = Professional small group, Case 4 = Non-professional small group.*
The inclusion criterion for each case has been previously outlined in Section 3.2 and is based around class size and professional versus non-professional programme of study. Response rate to the QTIHE was 98% (n=671).

9.2 Tests of Reliability
Cronbach’s alpha is a test of internal consistency, which has been defined as “the extent to which all the items in a test or scale measure the same construct and hence it is connected to the inter-relatedness of the items” (Tavakol & Dennick, 2011, p.53). 95% confidence intervals were calculated around each internal reliability coefficient using Feldt’s method (Feldt, Woodruff, & Salih (1987) to identify statistically significant differences in reliability scores between cases. When comparing two parameter estimates if the confidence intervals do not overlap, then the statistics will be statistically significantly different (at \( p < .05 \)). When examining confidence intervals between cases (Table 17) statistically significant differences were identified between alpha coefficients for the factor Uncertain between Case 1 95% CIs [0.82, 0.88] and Case 2 95% CIs [0.65, 0.76] and for the factor Dissatisfied between Case 1 95% CIs [0.68, 0.79] and Case 2 95% CIs [0.38, 0.58] and Case 1 95% CIs [0.68, 0.79] and Case 3 95% CIs [0.19, 0.59].

The data in Table 17 suggests that the QTIHE has acceptable alpha coefficients \( \alpha > 0.70 \) (Coolican, 2009; Heiman, 2011; Salkind, 2011; Howell, 2013) for the factors Teachers’ Positive Personal Attributes, Uncertain and Student-focused teaching across each case; that is for each group of students. Unacceptable alpha coefficients < 0.70 are reported for each case for the factor Strict, and for cases 2, 3 and 4 for the factor Dissatisfied.

These differences indicate that the tests of internal reliability in all cases require some consideration in addition to the reporting of alpha values. It has been stated that “reliability is a property of the scores on a test for a particular sample” (Streiner, 2003, p.101), a characteristic of the test scores and not the test itself and can differ from one sample to another (Field, 2013; Tavakol & Dennick, 2011). In this study this is evident when measuring the reliability of the QTIHE scale Dissatisfied. Case 1 data shows a satisfactory level of reliability for this scale (Cronbach’s \( \alpha = .74 \))
however case data 2, 3 and 4 show unsatisfactory levels (Cronbach’s $\alpha = .49, .41, .64$)

Measures of reliability need to be contemplated when interpreting results of tests that utilised the QTIHE in this study. In this case it is important to note that when considering the correlation between Incivility and QTIHE factors that factors that had highly significant associations demonstrated acceptable Cronbach’s alpha levels for each case except for ‘dissatisfied’ (Table 20).
<table>
<thead>
<tr>
<th>Case</th>
<th>Teachers positive personal attributes $\alpha$ (95% CI Upper-Lower)</th>
<th>Uncertain $\alpha$ (95% CI Upper-Lower)</th>
<th>Dissatisfied $\alpha$ (95% CI Upper-Lower)</th>
<th>Student-focused teaching $\alpha$ (95% CI Upper-Lower)</th>
<th>Strict $\alpha$ (95% CI Upper-Lower)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1 Mean reliability</td>
<td>.90 (0.88-0.92)</td>
<td>.85 (0.82-0.88)</td>
<td>.74 (0.68-0.79)</td>
<td>.76 (0.71-0.80)</td>
<td>.60* (0.51-0.67)</td>
</tr>
<tr>
<td>Case 2 Mean reliability</td>
<td>.89 (0.87-0.91)</td>
<td>.71 (0.65-0.76)</td>
<td>.49* (0.38-0.58)</td>
<td>.75 (0.70-0.79)</td>
<td>.59* (0.55-0.66)</td>
</tr>
<tr>
<td>Case 3 Mean reliability</td>
<td>.91 (0.88-0.93)</td>
<td>.79 (0.71-0.85)</td>
<td>.41* (0.19-0.59)</td>
<td>.82 (0.76-0.87)</td>
<td>.57* (0.41-0.69)</td>
</tr>
<tr>
<td>Case 4 Mean reliability</td>
<td>.92 (0.89-0.94)</td>
<td>.81 (0.73-0.87)</td>
<td>.64* (0.49-0.76)</td>
<td>.79 (0.71-0.86)</td>
<td>.47* (0.26-0.64)</td>
</tr>
<tr>
<td>Grand Mean reliability</td>
<td>.91 (0.90-0.92)</td>
<td>.81 (0.79-0.83)</td>
<td>.61* (0.56-0.66)</td>
<td>.78 (0.75-0.80)</td>
<td>.51* (0.45-0.57)</td>
</tr>
</tbody>
</table>

* $\alpha < 0.70$
9.3 Quantitative data results: QTIHE

A one-way between-participants multivariate analysis of variance (MANOVA) was run to determine whether student’s perceptions of their teacher’s interactions differed by case. The one independent variable (IV) was the case with four levels (four cases). The five dependent variables (DVs) comprised the five factors related to student perceptions of teacher interactions, namely teacher’s positive personal attributes, student focused teaching, dissatisfaction, uncertainty and strictness.

For each of the four cases in the study the group of students was observed on four separate occasions with four different teachers and therefore completed the QTIHE four times. This resulted in completion of the QTIHE on 16 occasions in total (4 classes x 4 cases). Although in each case data from the QTIHE was collected from the same students on four occasions, the responses given by the students across the four lectures could not be connected due to the anonymous responding on each occasion. The data was therefore pooled to give mean scores across the five factors of the QTIHE for each case. Thus, data was treated as though a between participants design had been utilised.

Preliminary assumption of MANOVA checking revealed that data was non-normally distributed for all dependent variables with the exception of the dependent variable strict for cases 1, 3 and 4 as assessed by the Shapiro-Wilk test ($p > .05$). Non-homogeneity of variance was identified between the dependent variables utilising Tabachnick and Fidell’s (2007) recommendation that for positively correlated variables Pearson’s $r$ should not exceed .90.

Pillai’s criterion was utilised as a measure of variance-covariance between variables as this statistic is robust to violations of assumptions. There was a statistically significant difference in QTIHE scores by case [$F(15, 1623) = 7.35, p < .001$; Pillai’s Trace = .191, $\eta^2_p = .06$]. Effect size was interpreted using Field’s (2013) suggested norms for partial eta squared: $<0.06 = \text{small}$, .06 to .12 = medium and $\geq.13 = \text{large}$.

Given the statistically significant multivariate $F$ test, follow-up univariate ANOVAs were conducted to examine how the mean scores varied among the four levels of...
the independent variable. Results showed that there was a statistically significant effect of case on Teacher’s Positive Personal Attributes \[ F(3, 543) = 18.27, p < .001, \eta^2_p = .09 \]; Student Focused Teaching \[ F(3, 543) = 11.6, p < .001, \eta^2_p = .06 \]; Dissatisfied \[ F(3, 543) = 4.77, p < .05, \eta^2_p = .02 \]; Uncertain \[ F(3, 543) = 15.2 , p < .001, \eta^2_p = .07 \]; and Strict \[ F(3, 543) = 7.7, p < .001, \eta^2_p = .04 \].

Bonferroni post-hoc tests showed that mean scores were statistically significantly different between cases for student’s perceptions of their interactions with teachers across the five factors of the QTIHE. Statistically significantly differences between mean scores were identified for Teacher’s Positive Personal Attributes between Case 1 and Cases 2, 3 and 4 and between Case 2 and 3; for Student Focused Teaching between Case 1 and Cases 2 and 4 and between Case 2 and Case 3; for Dissatisfied between Case 1 and cases 2 and 3; for Uncertain between Case 1 and Cases 2 and 3, between Case 2 and Case 4 and between Case 3 and Case 4; for Strict between Case 1 and Case 3 and between Case 2 and Case 3. Statistically significant differences were therefore found between mean scores for students’ perceptions of their teachers for all five factors of the QTIHE between large and small groups and also between professional and non-professional groups of students.

As the number of items on each factor varied, means were standardized, by dividing individual teacher scores for each factor by the number of items on the scale; the possible range of standardised scores being 0-4. Across cases, teachers were rated higher on factors that indicate positive student-teacher interactions such as teachers’ positive personal attributes and student-centred teaching than those factors that might be associated with negative student-teacher interactions such as being uncertain, dissatisfied or strict.
Table 18. *QTIHE results by case: Mean (SD)*

<table>
<thead>
<tr>
<th>Case</th>
<th>Teachers positive personal attributes</th>
<th>Uncertain</th>
<th>Dissatisfied</th>
<th>Student-focused teaching</th>
<th>Strict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1</td>
<td>3.11 (0.58) (_{a})</td>
<td>0.66 (0.22) (_{a})</td>
<td>0.44 (0.60) (_{a})</td>
<td>3.02 (0.60) (_{a})</td>
<td>2.38 (0.57) (_{a})</td>
</tr>
<tr>
<td>Case 2</td>
<td>3.52 (0.45) (_{b})</td>
<td>0.24 (0.44) (_{b})</td>
<td>0.28 (0.47) (_{b})</td>
<td>3.38 (0.52) (_{b})</td>
<td>2.40 (0.67) (_{ab})</td>
</tr>
<tr>
<td>Case 3</td>
<td>3.35 (0.34) (_{c})</td>
<td>0.41 (0.62) (_{bc})</td>
<td>0.26 (0.41) (_{bc})</td>
<td>3.18 (0.62) (_{ac})</td>
<td>2.08 (0.65) (_{c})</td>
</tr>
<tr>
<td>Case 4</td>
<td>3.41 (0.53) (_{bc})</td>
<td>0.72 (0.82) (_{a})</td>
<td>0.43 (0.58) (_{abc})</td>
<td>3.26 (0.58) (_{bc})</td>
<td>2.27 (0.53) (_{abc})</td>
</tr>
</tbody>
</table>

*Note: Case 1 = Non-professional large group, Case 2 = large group, Case 3 = Professional small group, Case 4 = Non-professional small group. Note: Means in the same column that share subscripts are not significantly different at \(p < .05\)*

Table 18 demonstrates that in this perceptions of their interactions with their teachers differ between cases.

### 9.4 Quantitative data results: classroom observations

A total of 20 hours of observation took place across 16 classes.

Following the process of semi-structured content analysis (Section 8.4.3) seven categories of incivility were defined: *Time*, *Talk*, *Disengagement*, *Technology*, *Signalling*, *Domination of Discussion* and *Personal Attacks*. These categories were used to describe the frequency of incivility within and across the four cases. They were then utilised to correlate the frequency of students’ classroom incivility with students’ perceptions of student-teacher interactions. Firstly, the development of the categories will be detailed.

As stated (Section 8.3) in quantitative, deductive content analysis, a coding and categorisation matrix based on earlier work is usually utilised. In the context of classroom incivility however, although pre-defined behaviours based on previous literature exist, few categories are available and they were deemed inappropriate to use in this study due to lack of rigour in development. New categories were therefore developed during analysis and each of these categories will be discussed in detail using examples of extracted data for illustration purposes.
The category of ‘Time’ incorporates three aspects of time-related incivility. Firstly, students arriving late for class: ‘two students arrive late’. Secondly students start to pack up their belongings prior to the class finishing. This often coincided with the timetabled finishing time: ‘students are packing up whilst being given a task for the following week’; ‘students have started to pack up before the teacher has finished’. Finally, students would leave and return to the classroom during the course of the session ‘student leaves the room’. The purpose of students leaving is unknown but may have involved going to the toilet or leaving to use mobile phones.

‘Talk’ incorporates a range of behaviours where students exhibit noisy behaviour including chatting, laughing, giggling and whispering: ‘students laughing whilst teacher was talking’ and ‘two students are chatting loudly’.

‘Disengagement’ covers a collection of both passive and active student actions that suggest that students are not engaging with the teacher or the content of the session. Examples include: ‘students are heard to be off task’; ‘students are not responding to questions’; ‘a student has her head on the desk and her eyes closed’; ‘a student is filling her diary in’.

‘Technology’ is a category of incivility involving the use of different types of technological equipment for different non-learning related activities. This included the use of mobile phones, notebooks and laptops. Students were observed texting and accessing files and websites for non-academic purposes: ‘student texting’; ‘student looking at photographs on a notebook’; ‘student scrolling the Internet on notebook’.

‘Signalling’ involves students giving out overt, blatant signs of disengagement with the class. It is unclear whether these actions are aimed at the teacher or their peers. Behaviours included: ‘student heard to sigh loudly’; ‘some sighing and yawning heard’; student heard to say loudly ‘this is too much’, as the session runs over.
‘Domination of the discussion’ was seen in small group cases. The students who appeared to dominate were non-traditional students and were drawing on professional or life experiences. When this occurred the other students in the class quickly stopped responding to the teacher and took on a passive role. Exemplars include: ‘a mature student is dominating the discussion’; ‘3 mature students sitting at the front are answering all of the questions’.

‘Personal attacks’ were again observed predominately in small group cases. Comments and actions were aimed at fellow students who were within hearing distance and the targets of attack were both teacher and student. One student was heard to say ‘no one is answering. She’s just standing there looking lost [teacher]’. One incident commenced when a student was discussing material from a session and relating it to her own personal experiences; ‘other students were seen to look at each other and snigger’. On another occasion during classroom discussion a student made the comment ‘I’m not interested in …. ’. Another student was heard to comment loudly in a sarcastic tone of voice ‘oh, she’s not interested in’.

To account for the difference in the number of participants within each case both weighted and unweighted frequencies of incivility were established for each category, Case 1 (n=242); Case 2 (n=268); Case 3 (n=92); Case 4 (n=76). Weighted frequency was computed by dividing the frequency of categorised incivilities by the number of participants in each case (f/n). Therefore a weighted frequency of 1 would mean that there were as many incidents of incivility during a class as there were students. The weighted frequencies will be referred to when discussing prevalence of incivility. As shown in Table 19 incivility was present across all cases. Between cases there is a total higher frequency of incivility in larger classes [Case 1 & Case 2] however a higher weighted frequency of incivility is present in smaller classes [Case 3 & Case 4]. Cohen’s d was utilised as a measure of affect size. Effect size was interpreted using Field’s (2013) suggested norms that d = 0.2 be considered a ‘small’ effect size, d = 0.5 represents a ‘medium’ effect size and d = 0.8 a ‘large’ effect size.

The difference between cases in relation to the weighted frequency of incivility by class size is 1.03 instances [Case 3 and 4 M= 1.02 SD = 0.32; Case 1 and 2; M =
0.49 $SD = 0.22$; Cohen’s $d = 1.93$. Therefore group size has a large effect on the weighted frequency of incivility with smaller classes being higher in incivility.

Case 1, a non-professional large group of students, experienced the highest frequency of incivility ($f=144$) however when accounting for class size, the highest weighted frequency was observed in Case 4, a small non-professional group ($f/n=1.10$). Between cases analysis also reveals that when comparing students studying for a professional award [Case 2 & Case 3] and a non-professional award [Case 1 & Case 4] the difference between the weighted frequency of classroom incivility is 0.45 instances; the non-professional group being greater [Case 1 and 4 $M = 0.62$; $SD = 0.35$; Case 2 and 3 $M = 0.88$ SD 0.38 Cohen’s $d = 0.71$]. Therefore studying for a professional versus a non-professional degree has a large effect on the weighted frequency of incivility with classes of students studying for a non-professional award being higher in incivility.

### Table 19. Frequency of categorical Incivilities within and across all cases: Frequency and weighted frequency in parenthesis

<table>
<thead>
<tr>
<th></th>
<th>Case 1</th>
<th>Case 2</th>
<th>Case 3</th>
<th>Case 4</th>
<th>All cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>27 (0.11)</td>
<td>22 (0.08)</td>
<td>7 (0.07)</td>
<td>10 (0.13)</td>
<td>66 (0.09)</td>
</tr>
<tr>
<td>Talk</td>
<td>39 (0.16)</td>
<td>8 (0.02)</td>
<td>6 (0.06)</td>
<td>11 (0.14)</td>
<td>64 (0.09)</td>
</tr>
<tr>
<td>Disengagement</td>
<td>18 (0.07)</td>
<td>6 (0.02)</td>
<td>14 (0.15)</td>
<td>17 (0.23)</td>
<td>55 (0.08)</td>
</tr>
<tr>
<td>Technology</td>
<td>50 (0.20)</td>
<td>63 (0.23)</td>
<td>49 (0.53)</td>
<td>37 (0.48)</td>
<td>199 (0.29)</td>
</tr>
<tr>
<td>Signalling</td>
<td>9 (0.03)</td>
<td>0 (0.00)</td>
<td>5 (0.05)</td>
<td>2 (0.02)</td>
<td>16 (0.02)</td>
</tr>
<tr>
<td>Domination</td>
<td>0 (0.00)</td>
<td>0 (0.00)</td>
<td>0 (0.00)</td>
<td>3 (0.03)</td>
<td>3 (&lt;.01)</td>
</tr>
<tr>
<td>Personal attacks</td>
<td>1 (0.00)</td>
<td>0 (0.00)</td>
<td>0 (0.00)</td>
<td>4 (0.05)</td>
<td>5 (&lt;.01)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>144 (0.59)</td>
<td>99 (0.36)</td>
<td>81 (0.88)</td>
<td>84 (1.10)</td>
<td>408 (0.60)</td>
</tr>
</tbody>
</table>

*Note: Case 1 = Non-professional large group, Case 2 = Professional large group, Case 3 = Professional small group, Case 4 = Non-professional small group.*

Across all cases the highest weighted frequency of incivility is recorded in the category of technology ($f/n=0.29$). Between cases this is proportionally most prevalent within those that contain small groups [Case 3 & Case 4].
Across all cases the lowest weighted frequencies of incivility were located within the categories of domination of discussion ($f/n$<.01) and personal attacks ($f/n$<.01); neither of these types of incivilities were present in cases where students are studying for a professional award [Case 2 & Case 3].

### 9.5 Qualitative data results: classroom observations

Following qualitative content analysis of classroom observations four categories of behaviour were identified that added a contextual element to the quantitative data analysis: Positioning, Engagement, Sanctioning and Persistent incivility. Examples of extracted units, codes for each category are in Table 12, (Section 8.4.3). Category descriptions are given in Table 13, Section 8.4.3. Each of the categories will be discussed in more detail with examples form extracted data utilised as illustration.

‘Positioning’ related to incivility concerns where students locate themselves in the classroom and comprises three aspects. Firstly students who exhibited incivilities related to noise would invariably position themselves at the back of the class or lecture theatre. Examples include ‘A group of students at the back are giggling’ and ‘there is chatting from the back row’. It was noted however that incivilities that were not related to noise would occur at various locations around the class; ‘A student at the front is texting’. Students near the front of the classroom would distance themselves from noisy incivility and engage with the teacher: ‘The students at the front are asking lots of questions’. Non-traditional students would also be more in evidence at the front of the classroom; Non-traditional students at the front are asking lots of questions’.

In the category of ‘Engagement’, students exhibited behaviours that gave an impression of engagement with the teacher and the content of the class. Although not directly related to incivility it was observed that during some classes students initially displayed behaviours suggestive of engagement but over a period of time exhibited behaviours of disengagement. In this category student actions included taking notes; ‘most of the students are taking notes and interacting with fellow students and teacher’; ‘students are responding to questions’; ‘students are
engaged in discussion with the teacher; students are attentive'; ‘students gave feedback from the task’.

‘Persistent incivility’ included students who were identified as repeatedly engaging in classroom incivility. It was noted that in classes there were core groups of students who were repeatedly involved. Some examples are captured in the following extracts: ‘3 students are chatting. These are the same students as identified earlier'; ‘a male student identified earlier is continually texting'; ‘student texting. This is student no.4 from this morning’s session'; ‘this same student had left the room in the previous lecture’.

‘Sanctioning’ occurs when students support, join in or fail to rebuke incivility from other students. Students would position themselves with other students who would ignore or join in with them. This was observed in several cases: ‘a student using her phone is showing a picture to the student next to her who laughs'; one student is seen to flick an elastic band at another student on the same table'; one student has packed her notebook away. This student is amongst a group of 3 sitting together. The student in the middle is texting and the third student has taken no notes and looks disinterested’.

These categories add depth to the categories that were defined from the quantitative data analysis. They are important in starting to interpret and contextualise classroom incivility in higher education classrooms.

9.6 Correlation between frequency of incivility and QTIHE.
Table 20 reports the results of correlation between frequency of all incivilities and QTIHE aggregated by class (N=16). Correlations were computed utilising weighted frequencies to account for differences in class size. Furthermore, analysis took place at individual classroom level and QTIHE scores were aggregated per class (16 classes)
Table 20. Correlation between incivility and QTIHE factors aggregated by class

<table>
<thead>
<tr>
<th>1. Incivility frequency</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Teachers positive personal attributes</td>
<td>-.793**</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Uncertain</td>
<td>.558*</td>
<td>-.737**</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Dissatisfied</td>
<td>.569*</td>
<td>-.803**</td>
<td>.612*</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>5. Student-focused teaching</td>
<td>-.702**</td>
<td>.874**</td>
<td>-.456</td>
<td>-.722**</td>
<td>---</td>
</tr>
<tr>
<td>6. Strict</td>
<td>-.078</td>
<td>.256</td>
<td>-.387</td>
<td>-.062</td>
<td>.258</td>
</tr>
</tbody>
</table>

** p < 0.01 level  
* p < 0.05 level

As Table 20 demonstrates, there is a statistically significant negative correlation between the frequency of classroom incivility and students ratings of teachers’ positive personal attributes (r = -.79, p < .01) and student-focused teaching (r = -.70, p < .01). Furthermore, there is a statistically significant positive correlation between the frequency of classroom incivility and students ratings of teachers’ dissatisfaction (r = .56, p < .05) and uncertainty. (r = .55, p = < .05) This demonstrates that when students rate teachers highly as having positive personal attributes and utilising student-centred teaching the frequency of classroom incivility is lower. Conversely, the frequency of incivility is higher when teachers are seen as being dissatisfied and uncertain.

9.7 The integration of quantitative and qualitative results from classroom observations.

The matrix below (Table 21) demonstrates the integration of the quantitative and qualitative results of classroom observations (See Section 3.3). Examples of extracts from field notes are given for each category from the quantitative data analysis. The frequency of this category across all cases is then reported. Finally the exemplars are contextualized utilising categories form the qualitative data analysis.
Table 21. The integration of the quantitative and qualitative results of classroom observations

<table>
<thead>
<tr>
<th>Quantitative data</th>
<th>Quantitative data extract</th>
<th>Qualitative data</th>
<th>Quantitative data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative category</td>
<td></td>
<td>Qualitative category (Contextualisation)</td>
<td>Frequency and weighted frequency of categorical incivility across cases (f/n)</td>
</tr>
<tr>
<td>Time</td>
<td>Student leaves the room. This same student had left the room in the previous lecture</td>
<td>Persistent incivility</td>
<td>66 (0.09)</td>
</tr>
<tr>
<td>Talk</td>
<td>Students are giggling at the back of the class</td>
<td>Positioning</td>
<td>64 (0.09)</td>
</tr>
<tr>
<td></td>
<td>Three students are chatting. These are the same students as identified earlier</td>
<td>Persistent incivility</td>
<td></td>
</tr>
<tr>
<td>Disengagement</td>
<td>Two students put their heads on the shoulders of the student in the middle and close their eyes</td>
<td>Sanctioning</td>
<td>55 (0.08)</td>
</tr>
<tr>
<td></td>
<td>Students are no longer responding to questions</td>
<td>Engagement</td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td>This student has been using her phone since the beginning of the lecture</td>
<td>Persistent incivility</td>
<td>199 (0.29)</td>
</tr>
<tr>
<td></td>
<td>Two students sitting at the back are texting</td>
<td>Positioning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A student using her phone shows a picture to the student sitting next to her who laughs</td>
<td>Sanctioning</td>
<td></td>
</tr>
<tr>
<td>Signalling</td>
<td>A student at the back yawns and stretches</td>
<td>Positioning</td>
<td>16 (0.02)</td>
</tr>
<tr>
<td>Domination of discussion</td>
<td>Three mature students sitting at the front are now dominating the discussion</td>
<td>Sanctioning</td>
<td>3 (&lt;.01)</td>
</tr>
<tr>
<td></td>
<td>One student is relating material to her own personal experiences. Other students are seen to look at each other and snigger</td>
<td>Sanctioning</td>
<td>5 (&lt;.01)</td>
</tr>
</tbody>
</table>
9.8 Chapter summary

This chapter has presented the results of both the quantitative and qualitative data that has been collected and analysed within this study. Points of interest related to descriptive data are emphasised and significant results of tests of correlation are highlighted. A rationale related to results of measures of reliability of quantitative data is offered and a matrix displaying the integration of the results of quantitative and qualitative classroom observation results is presented. Key findings from this study will be discussed in the next chapter (Chapter 10).
Chapter 10  Discussion of case study results

10.0  Chapter outline

This chapter is structured to address each of the research questions of this exploratory study independently by reviewing the findings, offering some possible explanations and relating them to previous literature. The research questions addressed in this study were:

Q1. What is the prevalence of student incivility in UK higher education classrooms?
Q2. What types of student incivility occur in UK higher education classrooms?
Q3. What is the relationship between students’ perceptions of student-teacher interaction and classroom incivility in higher education?

Firstly the prevalence of incivility in higher education classrooms from this study was examined to include frequency within, between and across cases. In addition, types of incivility are considered next with an emphasis on presence and context. The relationship between incivility and student-teacher interaction concentrates on statistically significant findings from the correlation of data gathered from the QTIHE and classroom observations.

10.1  Research Question 1. What is the prevalence of student incivility in higher education classrooms?

Discussion of the results of the prevalence of incivility will be with reference to Table 19 throughout (see Section 9.5)

10.1.1 International comparison

Student incivility was prevalent to varying degrees across each of the four cases included in this UK based study. Table 19 identifies the frequency of incivility by category for each of the cases and also across cases. Case 1 (non-professional large group) experienced the highest frequency of incivility ($f=144$) and the lowest level ($f=81$) was observed in Case 3 (Professional small group). However when accounting for class size, the highest weighted frequency was observed in Case 4 ($f/n= 1.10$) (non-professional small group) and the lowest weighted frequency in
Case 2 (f/n=0.36) (professional large group). When considering the types of incivility present across cases the most frequently occurring was that of technology (f=199) and the least prevalent was domination of discussion (f=3). More detailed discussion of the results of prevalence related to class size and professional status is offered in Section 10.1.2 and Section 10.1.3.

As no previous published research has reported the prevalence of incivility in higher education classrooms within a UK context, this enquiry is unique in that it confirms the nature, type and extent of its presence. Furthermore, earlier international studies are predominantly based on students’ and teachers’ reporting of levels of incivility through the use of surveys and interviews. These surveys utilise rating scales that measure perceived incidence of specified uncivil behaviours, for example on a three point scale of never, occasionally and frequently (Alberts et al., 2010) and a four point scale of never, rarely, sometimes, always (Clark, 2007; Swinney et al., 2010), thus these studies are collecting data about subjectivity. In noting the presence of incivility at different levels across all classes this research endorses the findings of the only other study that utilises objective, observational methods to ascertain the frequency of classroom incivility and confirms the extent of its presence within higher education classes (Boice, 1996).

The existence of incivility in higher education classrooms has previously been reported in international studies within the United States (Ausbrooks et al., Black et al., 2011; Clark, 2008a; Clark, 2008b; 2011; Del Prato 2013; Luparell, 2003), The People’s Republic of China (Clark et al., 2010; Clark et al., 2012) and Kuwait (Al-Kandari, 2011). The findings of this research therefore concur with other evidence that indicates that student classroom incivilities are experienced by teachers and students within higher education institutions. In this study, incivility was observed in every class and other authors have also reported similar extensive levels. In one survey 100% of teachers reported experiencing student inattention in class, absences and lateness (Lashley & De Meneses, 2001). Clark (2007) reported that in the twelve months prior to data collection, 80% of teachers and 70% of students had experienced students arriving late, holding distracting conversations and being unprepared for class. In China over 68% of students and 75% of teachers stated
that they had experienced students being unprepared for class, sleeping in class and acting bored and apathetic (Clark et al., 2010). Alberts et al. (2010) investigated teachers’ involvement with incivility and reported that 27.6% had to deal with such behaviour on a regular basis and a further 65.6% occasionally. Students also stated that on a rating scale from low to high, they experienced a fair amount of moderately uncivil behaviour in their classes on a regular basis (Al-Kandari 2011; Bjorklund & Rehling, 2010) however differences between teachers’ and students’ perceptions as to what constitutes incivility and the frequency of incivility in classes has also been reported (Clark & Springer, 2007; McKinne & Martin, 2010). Teachers stated that they experienced higher levels than student reports and some behaviours that were viewed as uncivil by teachers, such as texting in class, were not seen as being problematic by students.

The presence of more severe forms of classroom incivility have been cited in the literature (Kuhlenschmidt & Layne, 1999; Lashley & De Meneses, 2001; Burke et al., 2014) and include verbal and physical attacks as well as intimidating behaviour. Within this exploratory study no episodes of these extreme types of incivility were observed.

10.1.2 Academic discipline
In this multi-case study design two of the cases included students from professional programmes (Case 2 and Case 3) and two included students from non-professional disciplines (Case 1 and Case 4). The purpose of these inclusion criteria was to enable a comparison of frequency and types of incivility that take place between undergraduate students on professional and non-professional programmes. Class size was accounted for by weighting the frequency of incivility to account for number of students per case; Case 1 (n=242); Case 2 (n=268); Case 3 (n=92); Case 4 (n=76). There is greater weighted prevalence of incivility across groups studying for a non-professional award, (Case 1 plus Case 4; f/n=0.71) compared to those studying on a professional programme, (Case 2 plus Case 3; f/n=0.50) with a difference in weighted frequency of 0.45 instances. (Table 19, Section 9.5).

The results of the between-case analysis in this study are contrary to the findings of Swinney et al. (2010). In their cross-disciplinary sample, 1783 lecturers rated on a
five point scale, from never to often, their perceived level of student classroom incivility across three categories of aggressive, irresponsible and inappropriate student behaviour. They found that lecturers of accountancy reported statistically significantly higher levels of inappropriate student behaviours compared to other non-professional disciplines. This was in conflict with their expectations that incivility would be less likely in classes preparing students for a profession. Again, as this study utilised a rating scale to collect data the results are based on subjective perceptions of frequency of uncivil behaviour. Furthermore, the study by Swinney et al. (2010) is the only other research on classroom incivility that compares students studying for a professional compared to a non-professional award.

Studies of student incivility have focused on the perception of students and teachers within a specific academic discipline such as accounting (Elder et al., 2010), business (Seidmen, 2005), education and psychology (McKinne & Martin, 2010) and geography (Alberts et al., 2010). In particular there appears to be interest in how students experience incivility across various professional disciplines for example nursing (Clark & Springer, 2007, Clark, 2008; Clark et al., 2010), social work (Ausbrooke et al., 2011) and dentistry (Rowland & Srisukho, 2009). On these programmes, students are being prepared for registration with a professional regulatory body in addition to studying for an academic award. Professionalism requires courtesy, mutual respect, self-restraint, and fairness (Zeff, 2003). These character traits necessary for professionalism all relate to how we interact with others and can be included under the umbrella virtue of civility (Zeff, 2003). There is an expectation therefore that students on professional programmes exhibit lower levels of classroom incivility than students who are not undertaking professional training (Swinney et al., 2010).

10.1.3 Class size
Each case comprised of 4 classes with Cases 1 and 2 containing large class size and Cases 3 and 4 being small group size. When considering class size in this enquiry, results in Table 19 (Section 9.5) demonstrate that there was a higher total frequency of incivility in larger classes, Case 1 ($f=144$) and Case 2 ($f=99$) compared to smaller classes, Case 3 ($f=81$) and Case 4 ($f=84$). However, this may be due, in
part, to the large number of students in these classes. When adjusting for the number of participants it was found that group size has a large effect on the weighted frequency of incivility (Cohen's $d = 1.93$) with smaller classes being higher in incivility. A higher weighted total frequency was identified in smaller classes, Case 3 ($t/n= 0.88$) and Case 4 ($t/n=1.10$) than in larger classes, Case 1 ($t/n=0.59$) and Case 2 ($t/n=0.36$). Furthermore, when examining the frequency dependent on the type of uncivil behaviour, incivilities related to technology (Case 1, $f=50$) and (Case 2, $f=63$) and time (Case 1, $f=27$) and (Case 2, $f=22$) were most frequently observed in large groups (Case 4, $f=3$) and personal attacks (Case 4, $f=4$) were more prevalent in small groups.

Previous studies, Carbone (1999); Alberts et al. (2010); Elder et al. (2010) and Swinney et al. (2010) have also reported higher levels of incivility in larger classes of undergraduate students and given accounts of fewer incivilities in smaller classes and seminars. In addition, Cooper and Robinson (2000) and Tilley (2014) concluded that an increase in complaints and concerns regarding student incivilities were concurrent with rising class sizes. Although large class sizes were defined as those with over fifty students attending by Alberts et al. (2010), the research conducted by Elder et al. (2010) does not quantify large and small class when eliciting lecturers’ responses to their perception of incivility levels in differing class sizes, thus relying on respondents’ subjective interpretation.

One exception to the findings of higher levels of incivility in larger classes are those of Meyers, Bender, Hill and Thomas (2006) who reported that class size was not statistically, significantly related to teachers’ reports of students inattentiveness or incivility. However, in their study a small sample size is utilised, with the average class size consisting of thirty-seven students and upper and lower limits are unreported. Furthermore, earlier research that has identified greater levels of incivility in larger classes, have used self-reporting surveys and the actual frequency has not been reported (Alberts et al., 2010; Carbone, 1999; Elder et al., 2010; Swinney et al., 2010).

The most prevalent types of incivility reported in large classes in this study are similar to those cited in previous studies by teachers and students (Bjorkland &
Rehling, 2010; Clark & Springer, 2007; Clark et al. 2010; Lashley & De Meneses, 2001; McKinne & Martin, 2010; Shepherd et al., 2008). Such incivilities include inappropriate use of technology, talking, chatting and laughing. There is however no identifiable published literature that differentiates the types of classroom incivility in relation to class size.

10.2 Research Question 2. *What types of student incivility occur in UK higher education classrooms?*

This research aimed to identify the types of student incivility that occur within a UK higher education classroom context. These types were categorised during the process of conducting a mixed-methods content analysis of classroom observations resulting in seven descriptive and four contextualising categories. The seven descriptive categories identified were time, talk, disengagement, technology, signalling, domination and personal attacks. The four contextual categories were positioning, engagement, sanctioning and persistent incivility (Section 8.2). Each of these categories will be addressed separately. Discussion of the results of the types of incivility will be with reference to Table 19 (see Section 9.5 and Section 9.6).

10.2.1 Types of incivility.

10.2.1.1 Time

Time was the second most frequently observed category of incivility across all cases ($f=66$). Issues of time were observed across all cases with higher frequencies in large group cases (Case 1, $f=27$; Case 2, $f=22$). When accounting for case size, the highest prevalence of time incivilities were recorded in Case 4 ($f/n=0.13$), a small non-professional group (See Table 19). Time issues included students arriving late, packing to leave early and leaving the class during lectures.

Students and teachers in the majority of previous studies have identified these behaviours as problematic. Arriving late and leaving early have been ranked as two of the most frequently experienced incivilities by students and teachers (Boice, 1996; Clark & Springer, 2007; Gallo, 2012; Lashley & De Meneses, 2001) and as the most uncivil behaviour experienced by teachers (Bjorkland & Rehling, 2010; Clark & Springer, 2007). In differentiating between professional and non-
professional programmes, the findings of this research are contrary to those of Swinney et al. (2010) who reported higher levels of students arriving late for class on professional programmes when compared to non-professional. These results were based on results of a survey where levels of incivility were ranked by students from never, often, to always.

When students come to class late, it can affect the flow of a lecture or discussion, distract other students and disturb the learning and teaching process (Bataineh, 2014). The frequency of students arriving late could be due to various factors. A review of the international literature identified numerous reasons for persistent student lateness. These included lack of sleep, learned behaviour from family members, cultural background, and lack of sanctions (Bataineh, 2014). Lateness has also been identified as behaviour associated with student disengagement (Hockings et al., 2008).

A further explanation may be related to the increase in the proportion of students coming into UK higher education with additional responsibilities, such as paid employment and childcare compared to students in the past. As many of these students come from families of low socio-economic status (Higher Education Statistics Agency, 2014) and following the introduction of tuition fees in 2006, more students than ever are taking on employment supplementary to their student status. Some students take on employment that entails working after attending university for lectures and therefore finishing late and this could lead to increased tiredness and lateness the next day. In addition to student employment, an increased number of mature students are entering higher education (Higher Education Statistics Agency, 2014) and for those with responsibility for families this may also result in difficulties combining childcare arrangements and arriving on time for class.

10.2.1.2 Talk
Talk was recorded across all cases and was most prevalent in a large, non-professional case (Case1, f=39) even when accounting for class size ($f/n=0.16$) (Table 19). Talk encompasses chatting, whispering and laughing. Behaviours that fall into the category of talk were identified across all published studies as being disruptive to teachers and students and being one of the most frequently
encountered incivilities (Boice, 1996; Clark & Springer, 2007; Clark et al., 2010; Lashley & De Meneses, 2001; McKinne & Martin, 2010). Both students and teachers have rated issues of talk as being highly problematic (Lashley & De Meneses, 2001; Shepherd et al., 2008) and disruptive to learning and teaching (Luparell, 2007; Parr & Valerius, 1999; Seidman 2005). In differentiating between professional and non-professional programmes, the findings of this study conflict with those of Swinney et al. (2010) who reported higher levels of distracting student conversations in classes on professional programmes when compared to non-professional. Given the extent and reportedly problematic nature of students talking in higher education classes it is surprising that there is no identifiable literature that examines its causes. This is therefore an area for future investigation.

10.2.1.3 Disengagement
Disengaged behavioural students displayed actions that suggested a lack of interest in the class and these actions were observed across all cases ($f=55$) (Table 19). Within case, the highest prevalence of disengagement was seen in Case 1 ($f=18$), a large non-professional group however when accounting for class size, the greatest prevalence was observed in Case 4 ($f/n=0.23$), a small non-professional group. In this study these behaviours included students appearing to be ‘off task’, sleeping and not responding to teachers’ questions. The lowest levels of disengagement were recorded in Case 2 ($f=6$), a large professional group, including when accounting for group size ($f/n=0.02$).

Similar behaviours that may constitute disengagement have also been identified by others as incivility and include acting bored or apathetic (Clark et al., 2010) sleeping in class (Clark et al., 2012; Clark et al., 2010; Gallo, 2012), failure to respond to questions (Alberts et al., 2010) and not paying attention (Lashley & De Meneses, 2001; McKinne & Martin, 2010). Specific student behaviours, such as sleeping in class and being unresponsive have been cited both in the literature on incivility and the literature on disengagement. Further understanding is therefore required in order to explain why students may become disengaged in class and exhibit behaviours that students and teachers perceive to be uncivil.
Disengaged students have been described as those who do not participate actively in class, do not become cognitively involved in learning and exhibit inappropriate or counter-productive behaviour (Finn & Zimmer, 2012). Dean and Jolly (2012) explain that the process of disengagement occurs when students deflect or reject learning opportunities. Students who are disengaged have been described as ‘surface learners’ who are non-reflective (Exeter et al., 2014) and appear passive, unprepared, withdrawn and distracted (Skinner, Furrer, Marchand, & Kindermann, 2008) and distracting to others (Hocking, Cooke, Yamashita, McGinty, & Bowl 2008). Krause (2005) favours the term ‘inertia’ over disengagement and states that the latter suggests an active detachment or separation, whereas the former is more suggestive of doing nothing, which aptly depicts the state of being for a group of students who do not actively pursue opportunities to engage. Fredricks, Blumenfeld and Paris (2004) utilise the terms “behavioural non-engagement” to describe non-participation in class and “behavioural negative engagement” to portray classroom behaviour that is disruptive. (p.62).

Nardi and Steward (2003) described disengaged students as “quietly, invisibly disaffected...: those with low engagement with learning tasks” (p. 346). Exeter et al. (2014) identified disengaged students as exhibiting behaviours such as doodling, studying material other that related to the class and using laptops for non-academic related activities. The latter of these behaviours are also cited in the literature as being perceived as uncivil (Bjorkling & Rehling, 2010; Gallo, 2012).

In accounting for student disengagement, Dean and Jolly (2012) suggest that students who appear to resist learning opportunities may do so for two reasons. Firstly, on an experiential level, the learning opportunity that is being offered may not suit their learning style and secondly, on a biological level, the learning activity may trigger a fear-based memory; in either case disengagement may follow. Hockings et al. (2008) reported that students became disengaged in their study due to the following: variation of students’ knowledge of the subject matter which leads to some students being dominant and others not understanding, students being unable to problem solve and giving up and students not making the connection between subject matter and future aspirations.
Lecturers had previously described some of the behaviours that were observed in this study, for example sleeping in class, as classroom incivility. They have also been cited in literature on disengagement. It appears therefore that lecturers need to be able to recognise and understand when students in class are disengaged. This will enable reflection on teaching practice to address the issue of student disengagement in classrooms.

10.2.1.4 Technology
Inappropriate use of technology was the most prevalent type of incivility observed across and within cases in this research (Table 19). The frequency across all cases ($f=199$) was much greater than the second most frequently observed category of time ($f=66$). Within case, the highest frequency was observed in a large professional group (Case 2, $f=63$) whilst the weighted highest frequency accounting for group size was found in a small professional case (Case 3, $f/n=0.53$). Students used mobile phones, notebooks and laptops for non-academic purposes such as texting, accessing the internet and visiting social media sites.

These results are unsurprising as the majority of published research to date cites the use of mobile phones and technology for non-class related purposes as being one of the most frequently experienced and most disruptive forms of incivility in class. (Alberts et al., 2010; Bjorkland & Rehling, 2010; Clark & Springer, 2007; Clark et al., 2010; Gallo, 2012; Lashley & De Meneses, 2001; McKinne & Martin, 2010). In a recent survey of higher education students, 64% reported using their laptop during classes (Fried, 2008). Overall, in Fried’s study students spent an average of 23% of their class time on the laptop doing anything but taking notes or reading lecture related material. Their uncivil behaviours included checking email (81%), using instant messaging (68%), surfing the Internet (43%), playing computer games (25%), and other activities such as online shopping (35%). Similar results were obtained by (McCreary, 2009). Specifically, 71% of students admitted surfing the web during classes. Their behaviours included emailing (87%), instant messaging (38%), and browsing sites unrelated to the course (42%). These studies have utilised self-reporting methods to capture the extent of the prevalence of misuse of technology in classrooms. This study therefore complements these findings through the use of a semi-structured, observational method. No published
literature was located that specifically addresses technology associated incivility in relation to class size or professional versus non-professional programmes.

A growth in the use of mobile technology in higher education classrooms has led to an increase in literature addressing both its positive and negative impacts. According to Luppicini (2012) the paradox of technology in higher education is evident. Technology can be a powerful tool that can leverage teaching and learning. For example, smartphones provide students with immediate, portable access to many education-enhancing resources such as information retrieval, file sharing and interaction with fellow students (Bull & McCormick, 2012; Tao & Yeh, 2013). Katz (2005) reported on the uses of technology for tutoring, accessing Internet resources and connecting students, teachers and parents. Others have noted the potential of technology to support anytime, anywhere through learning 'm-learning', the mobile evolution of e-learning (Nyiri, 2002).

On the contrary, technology in classrooms can be a distracting force that competes with teachers for students’ attention. Students have commented that despite their best intentions, the temptation to inappropriately use technology in the classroom is strong. As one student commented “I always start out by taking notes, but usually end up surfing the web.” (Bird et al., 2008, p.5). These distractions are further explored in a study by Wei, Wang and Klausner (2012) who specifically focused on texting in higher education classrooms. The results of their study demonstrated that students who habitually text in class are shown to have low self-regulation (self-control), an attribute also suggested by Lepp et al. (2015) as being associated with increased use of mobile phones for leisure purposes in higher education classrooms.

Consequently, they are less likely to sustain their attention on learning-orientated tasks and shift their attention to other irrelevant behaviours thus influencing cognitive learning. Harman and Sato (2011) and Lepp et al., 2015) further confirmed the effect of technology exploitation in higher education classrooms, reporting that frequent text messaging was negatively correlated with academic performance. Sana, Weston and Cepeda (2012) also found that participants who misused a laptop during a lecture for non-academic related purposes scored lower on a test compared to those who did not, and participants who were in direct view
of a student who misused their laptop scored lower on a test compared to those who were not. In addition to using technology in class as a form of diversion and social connection, students have identified ways of utilizing technology for cheating by accessing information during exams and text messaging answers to exam questions (Katz, 2005).

As stated, this and other studies have reported the use of mobile phones and technology for non-class related purposes as being one of the most frequently experienced forms of incivility in class. Campbell (2006) explored attitudes to mobile phones in classrooms. He concluded that mobile phone use in class was a source of irritation for both students and teachers however younger participants demonstrated more tolerance and were less supportive of formal policies that restricted their use. It is plausible that the important roles that mobile phones and technology play in the lives of young people contributes to their more tolerant attitudes. Given the identified negative impact of technology misuse in higher education classrooms and its reported prevalence in this and other studies this is an important area for consideration in relation to addressing technology related incivility.

10.2.1.5 Signalling

Signalling was observed at low levels across cases (f=16) and was more prevalent in a large, non-professional group (Case1, f=9), (Table 19). Signalling included students displaying overt signs of disengagement such as yawning loudly, sighing and vocalising discontent for example ‘this is too much’. Signalling differed from disengagement, as student actions were un concealed and blatant. Similar behaviours, such as staged yawning, eye rolling and acting bored have been identified as occurring in classes in other studies of classroom incivility (Bjorklund & Rehling, 2010; Clark & Springer, 2007; McKinne & Martin, 2010) and have been perceived as being more uncivil by teachers than by students (McKinne & Martin 2010). Despite this, there is little discussion in the literature that addresses this category of perceived incivility.

One potential explanation however could be that of boredom. This is feasible, as in one study 59% of students reported finding their lectures boring half of the time and
30% stated that all of their lectures were boring (Mann & Robinson, 2009). The data in this research was however limiting as the findings were based on general estimates of time in lectures overall and were retrospective and based on student recall. According to Pekrun, Goetz, Daniels, Stupinsky, and Perry (2010) from a survey of 203 undergraduate students, boredom was the most frequently reported negative emotion experienced in academic situations, that is, attending class or studying. During focus group discussions, students have stated that when they experienced being bored in lectures they employed coping strategies such as talking to their neighbour, leaving mid-session and playing games on mobile phones (Mann & Robinson, 2009). Use of mobile phones in classrooms associated with relieving student boredom has also been reported in more recent studies (Lepp et al., 2013).

Students in The People’s Republic of China described lectures where teachers who were perceived as boring resulted in a lack of concentration and students falling asleep (Clark et al., 2012). These behaviours have also been cited within the literature as constituting classroom incivility (Bjorklund & Rehling, 2010; Clark & Springer, 2007; McKinne & Martin 2010).

Boredom has been defined as “a state of low arousal and dissatisfaction, which is attributed to an inadequately stimulating situation” (Mann & Robinson, 2009, p243), and “an emotional state with cognitive, physiological, motivational and expressive components” (Pekrun et al., 2010, p.532). Whereas other emotions are induced by events and objects that are subjectively valued and personally important, boredom is an emotion that is caused by a lack of value in a given situation or activity (Pekrun et al, 2010). Boredom is commonly seen as an affective state composed of unpleasant feelings, lack of stimulation, and low physiological arousal (Harris, 2000). As an achievement emotion, boredom is categorised as a ‘negative deactivating emotion that is unpleasant and involves a reduction of physiological activation’ (Pekrun et al., 2010, p.532). The latter expressive component may include facial, postural and vocal expressions of boredom. An important consequence of boredom is that it triggers strong impulses to escape the situation and has therefore been linked to non-attendance, as a coping response to classes that fail to engage, and diminished academic achievement (Fallis &
Of particular importance with respect to boredom is the diagnostic competency of teachers; a teacher’s ability to recognise when and why students are bored (Daschmann, Goetz, & Stupinsky, 2014). Symptoms of boredom as reported by students are difficulty in concentrating, sleepiness, yawning, poor posture and empty gaze (Daschmann et al., 2014). Breidstein’s (2007) ethnographic study of compulsory education classrooms observed that the communication of how boring a situation is need not be explicit; exchange of glances, raising of an eyebrow or even a simulated yawn. Many of these behaviours have been interpreted in studies by Clark (2007), Bjorklund and Rehling (2010) and McKinne and Martin (2010) as being uncivil. Breidenstein (2007) postulates that a certain amount of boredom is to be accepted during classes. He suggests however that to overtly display signs of boredom is taboo and therefore mostly suppressed. Within the classroom environment, politeness and tact prohibit students from confronting the teacher too directly with their own boredom (Breidenstein, 2007). This may account for explicit displays of boredom, as being perceived as uncivil by students and teachers.

It is suggested that some students are more prone to boredom than others (Mann & Robinson, 2009) and that boredom-prone individuals are deficient at maintaining an adequate level of stimulation. It is likely that boredom proneness is a contributor to classroom boredom, however unstimulating teaching methods (Bartsch & Coburn, 2003), monotonously instructed classes (Pekrun, 2010) and ‘dull and tedious’ lectures have also been cited as causative (Mann & Robinson, 2009). Of particular interest to this study of student-teacher interactions and incivility are the results of research by Daschmann et al. (2014) where students identified aspects of teachers personality, such as being ‘monotonous’ as being responsible for student boredom.

This discussion on signalling links the concept of boredom to two important aspects of this study, perceived student incivilities and teacher’s personality. It could be hypothesised that student classroom behaviours that are perceived as uncivil are students’ overt signals of boredom. This is clearly an area for further research.
10.2.1.6 Domination

In this study, domination of discussion was observed in Case 4 \((f=3)\) a small group of non-professional students. Across cases domination was the least prevalent incivility and was not observed in case 1 \((f=0)\), Case 2 \((f=0)\) or Case 3 \((f=0)\) (Table 19). The students who were involved in dominant discussion appeared to be non-traditional, that is students over the age of 25 (Howard & Baird, 2000). These findings are inconsistent with those reported in other studies as occurring frequently (Clark & Springer, 2007), as being highly disruptive (Clark & Springer, 2007; Clark et al., 2010; Connelly, 2009; Hogan, 2007) and as creating classroom tension (Clark et al., 2010; McKinne & Martin, 2010). Inconsistency between the findings of this study and those cited in previously published literature may be contextual as all aforementioned studies were located within the United States.

Research has identified that the minority leads participation in classroom discussion. As many as two-thirds of students never, or rarely, participate in class (Caspi, Chajut, & Saporta, 2008) with dominant speakers exerting a disproportionate influence over other group members (Fay, Garrod, & Carletta, 2000). However, when one or more students dominate classroom talk it can be viewed as an incivility by potentially interfering with other students’ learning (McPherson & Liang, 2007). Moreover, non-traditional students are more likely to govern the debate, contributing over twice as many interactions than their counterparts (Howard & Baird, 2000). On professional programmes, traditional students have voiced concerns regarding not feeling able to share their views due to lack of experience (Hockings et al., 2008; Holstrom, 2012). Those who participate less in class discussion see their role as passive and as fulfilling their obligation as a student with their mere presence. Active participants however see the classroom as requiring more of a dynamic approach requiring involvement in activities and discussion and not just attendance (Howard & Baird, 2000).

An insight into why domination of classroom discussion is seen as an incivility is given by students who participate little or not at all. Non-participants are concerned that classmates who seek to inject their own experiences into discussion take time away from the true expert, the teacher (Howard & Baird, 2000). Dominant students often monopolise classroom discussions and such over-communication can limit
the participation of others, thus undermining learning for those students (McPherson & Liang, 2007). The presence of dominant students can also lower their peers’ perceptions of self-confidence (Fortney, Johnson, & Long, 2001) and be perceived by fellow students as intimidating (Hockings et al., 2008).

The presence of students who dominate classroom discussion has been reported in this study and reiterated throughout the literature. Furthermore, research has demonstrated that non-traditional students are more likely to be perpetrators and that students’ classroom domination can have a negative impact on their peers’ self-confidence and learning. Lecturers therefore need to be aware of the presence of domination of discussion and its potential impact and to address its occurrence within their classrooms.

10.2.1.7 Personal attacks

Verbal, personal attacks were recorded in Cases 1 (f=1) and Case 4 (f=4) and were more prevalent in the small, non-professional group, Case 4 (Table 19). In Case 1 the personal comment was aimed at the teacher whereas in Case 4 the comments were intended for other students. Personal attacks in the context of this study were in the form of sarcastic or mocking comments or gestures, for example following a comment made by one student ‘other students were seen to look at each other and snigger’ [Case 4 Lecture1]. Students in other studies have reported low levels of similar behaviours, to include making sarcastic remarks and gestures (Clark & Springer, 2007) and experiencing nasty, rude or hostile behaviour from classmates (Cooper et al., 2009). Similarly, Boice (1996) when observing higher education classrooms identified the presence of ‘classroom terrorists’ whose unpredictable outbursts, usually insulting, made the entire class tense. Feldmann (2001) also described classroom terrorism where students aim to dominate classrooms by displaying intolerance towards others’ views.

Dick and Rayner (2004) describe four modes of harassment or ‘attack’ within the workplace. Of relevance to the finding of this exploratory study they highlighted that personal attacks include belittling remarks, persistent criticism and public humiliation. Similarly, a study of student harassment of academics within a UK higher education context reported incidences of verbal and personal attacks from
students within the classroom environment (White, 2013). These behaviours portrayed within the context of harassment are similar to those described in the literature on incivility.

The effect of personal attacks on teachers has been cited in the literature on student incivility and is described as leaving staff feeling attached or injured in some form (Luparell, 2003) and harmed emotionally and/or physically (Sprunk et al., 2014). There is however a lack of primary research that specifically focuses on the impact of these types of incivilities on teachers and students.

10.2.2 Contextualising incivility
The following section contextualises the types of incivility discussed above. At this point quantitative and qualitative results are integrated. Results of the qualitative content analysis identified four themes: Positioning, Engagement, Persistent incivility and Sanctioning (see Section 9.8). These themes serve to put into context the above quantitative categories.

10.2.2.1 Positioning
As previously stated (Section 9.6), positioning comprises aspects of positioning within the class and its relationship to incivility. It was observed that students who sat at the back of the classroom exhibited more noisy incivilities, such as talking and laughing, whereas incivilities that were not related to noise, such as texting, occurred at various locations around the class. Students positioned at the front of the class would distance themselves from noisy disruptive activity and appeared to engage more with the teacher. Examples include ‘a group of students at the back are giggling’ and ‘there is chatting from the back row’.

No further studies were identified that addressed the issue of classroom positioning in relation to incivility within higher education. Research has however identified that students who sit at the back of class are less academically motivated, less engaged with class material and interact less with the teacher compared to those that sit at the front. (Fernandez, Huang, & Rinaldo, 2012). According to Benedict and Hoag (2004) students located at the back of the class in a lecture theatre are also more likely to engage in off-task activity and non-academically related socialisation. The
authors also suggest that students prefer to sit further back with their friends if they plan to distract each other instead of paying attention. This would account for the findings of this study where students sitting at the back of the class engaged in incivilities that involved socialization such as chatting with their peers.

10.2.2.2 Engagement

In the category of engagement, students exhibited behaviours that gave an appearance of interest, enthusiasm and engagement with the teacher and the content of the class. Although not directly related to incivility it was observed that during some classes students initially displayed behaviours suggestive of engagement but over a period of time exhibited behaviours of disengagement (See Section 10.2.1.3).

Student engagement has been defined as “participation in educationally effective practices, both inside and outside the classroom” (Kuh, Kinzie, Buckley, Bridges & Hayek, 2007, p.57). Fredricks et al. (2004) identify three types of engagement: behavioural, cognitive and emotional. Behavioural engagement is defined by attendance, preparation for and participation in class (Appleton, Christenson, Kim, & Reschly, 2006).

In this category student behavioural actions were perceived to reflect engagement and included taking notes; ‘most of the students are taking notes’ and also interacting with fellow students and teacher; ‘students are responding to questions; students are engaged in discussion with the teacher; students are attentive; students gave feedback from the task’. When students began to exhibit behaviours that may be perceived as disengaged they included behaviours such as being ‘off task’, sleeping, not responding to teachers’ questions and stopping taking notes.

Boice (1996), during his extensive study of higher education classroom incivility, observed similar patterns of engagement/disengagement related to note taking. Students who took notes were judged to be diligent and attentive however these students would ‘quit taking notes’ in fast-paced lectures. In classes where incivility levels were high Boice observed low levels of student note-taking. None note-takers would also give off other cues of non-engagement in class, such as
sleeping. Furthermore, he reported classes where most students started taking notes but quickly gave up; this coincided with increasing levels of incivility. Bryson and Hand (2007) have described similar patterns whereby students showed different degrees of engagement and disengagement within the duration of a session or course. This variation is similar to the pattern of engagement and disengagement that was observed in this exploratory study. Links to engagement, note-taking and incivility have been reported in published literature and in this study. This is an area that therefore requires further investigation.

10.2.2.3 Persistent incivility

Individual persistent or repeat incivility was noted within several classes across the study, in particular related to chatting, leaving the room and technological related behaviours. An example within this category includes ‘a male student identified earlier is continually texting.’

Causes of student incivility have been previously discussed within the literature review (Section 2.5.1). Factors include the influence of the teacher in prompting student incivility (Boice, 1996; Braxton & Bayer, 2014), lack of teachers’ immediacies (Alberts et al., 2010; Boice 1996), student stress and attitude of student entitlement (Clark, 2008c; Finney, 2013). There were no studies identified however that specifically addressed the issue of persistent incivility.

The actions of these core groups of students in each class could be explained by some of the theories already discussed in relation to other categories. For example students may have traits of boredom proneness (See Section 10.2.1.5) and thus be unable to maintain a level of stimulation (Bartsch & Coburn, 2003) or resist the strong impulse to escape that is associated with definitions of boredom (Daschmann et al., 2014) They may also be poor self-regulators (Wei et al., 2012) when faced with the temptation of using technology inappropriately in class, particularly texting and use of social networks (See Section 10.2.4).

In this research, although individual persistent incivility was in the minority, the cumulative effect of their continued incivilities was evident. This subject of persistent incivility is an area that would benefit from further exploratory study.
10.2.2.4 Sanctioning

This occurred when students supported, joined in or failed to rebuke incivility from other students. It was usually related to proximity, in that these students would be positioned together in small groups. Examples included ‘a student using her phone is showing a picture to the student next to her who laughs’ and ‘one student is seen to flick an elastic band at another student on the same table.’ Some explanations for these behaviours can be offered.

Social bond theory (Hirschi as cited in Durkin et al., 1999) focuses on the social ties within a group, in particular the four major areas of bonding that promote or prevent inappropriate behaviour: attachment, commitment, involvement and belief. According to Hernandez and Fister (2001) a strong attachment to peers who participate in disruptive classroom behaviours such as side conversations increase the likelihood of one’s own participation. This theory could provide one explanation for students joining their peers in classroom incivility. Students may also vary in their perception of that which constitutes acceptable behaviour, for example younger participants demonstrating more tolerance to misuse of technology in classrooms (Campbell 2006) and these student norms of classroom decorum can vary within classrooms (Caboni et al., 2004). Furthermore, students also use rules devised by their immediate peers and these may be shared only by members of a particular social group (Hernandez & Fister, 2001). Bayer (2004) states that we should not assume that students understand behavioural norms associated with higher education, an assertion agreed by Perlmutter (2004) who proclaims that students need support in adjusting to higher education standards.

This section of the discussion on the types of incivility in higher education classrooms highlights some important issues. It is clear that types of incivility, its antecedents and context are intrinsically linked. The concepts of self-regulation and boredom provide insights that link these issues and offer potential for further enquiry.
10.3 Research Question 3. *What is the relationship between students’ perceptions of student-teacher interaction and classroom incivility in higher education?*

The results of this study demonstrate a statistically significant negative correlation between the frequency of classroom incivility and student ratings of positive personal attributes ($r = -0.79$, $p < 0.01$) and student-focused teaching ($r = -0.70$, $p < 0.01$). Furthermore, there is a significant positive correlation between frequency of classroom incivility and students’ ratings of teachers’ dissatisfaction ($r = 0.56$, $p < 0.05$) and uncertainty ($r = 0.55$, $p = <0.05$). These results show that when students rate teachers highly as having positive personal attributes and utilising student-focused teaching the frequency of classroom incivility is lower. Conversely, the frequency of incivility is higher when teachers are seen as being dissatisfied and uncertain (Table 20).

The positive-personal attributes scale of the QTIHE defined personal traits and characteristics that make up personality and which define you as a person (see Section 6.4.1). Example items comprise: *This teacher is friendly; This teacher has a sense of humour and This teacher gets to know students*. These measures of personal attributes are similar to those utilised on scales that measure immediacy, for example the Non-verbal Immediacy Questionnaire (Richmond et al. as cited in Badad, 2007) which includes the items’ *looks at the class when talking, smiles at the class and has a relaxed body posture*. Both scales measure components of an approachable teacher.

Immediacy is defined as “the degree of physical or psychological closeness between people, expressed in a positive affect and liking toward each other” (Richmond et al. as cited in Badad, 2007, p.223) and within an educational context as “the extent to which the teacher gives off verbal and nonverbal signs of warmth, friendliness and liking” (Boice, 1996, p.458). Immediacy involves the use of behaviours such as eye contact, smiling, direct body orientation, close proxemics (Miller et al., 2014) and leaning forward, smiling, purposeful gestures and eye contact (Boice, 1996, p.458). They increase the sensory stimulation between two persons and decrease physical and psychological distances (Elder et al., 2010; Witt & Wheeless, 2001). Non-immediate behaviours can be perceived as distant and
uncaring (Wilson & Taylor, 2001). Immediacy has been associated with a range of positive instructional outcomes (Harris & Rosenthal, 2005), effective learning (Miller et al., 2014) and enhanced student-teacher relationships (Witt et al., 2004).

Studies have linked immediacy and teacher attributes with classroom incivility and other aspects of the educational context. Boice (1996) first identified, through extensive classroom observations, a link between low levels of teachers’ immediacies and high levels of incivility, stating “clearly the teachers were the most crucial instigators of classroom incivility” (Boice, 1996, p.476). This relationship was later confirmed by Goodboy and Myers (2009) who found a significant negative relationship between students’ perceptions of teacher immediacy and students’ likelihood of uncivil behaviours and Trad et al. (2012) who reported that teacher non-verbal immediacy was inversely related to student incivility. Golish and Olson (2000) further explained that when students’ perceptions of teacher immediacy increased, the use of student power decreased and consequently incivility levels were reduced. When ascertaining students’ perceptions of effective and non-effective teachers Tang et al. (2004) reported that negative personality characteristics were the most disliked aspect of non-effective teachers. Furthermore, Daschmann et al. (2014) identified that teachers’ personality was recognised as an antecedent to boredom from a student perspective. This study therefore confirms the finding of previous research that equates an increase in students’ perceptions of teachers’ positive personal attributes with a reduction in the level of classroom incivility.

As stated (Section 9.7) the results of this study show that when students rate teachers highly as having positive personal attributes and utilising student-focused teaching, the frequency of classroom incivility is lower (Table 20). Student-focused teaching involves giving opportunities for students to discuss, explain and debate during class and shifts the focus and responsibility from teacher to student. These behaviours relate specifically to the act of teaching (see Section 6.4.1). Within the student-focused teaching scale of the QTIHE example items comprise: ‘this teacher is willing to explain things again’ and ‘this teacher provides us with choices and options’. This aspect of teacher interaction with its emphasis on collaborative instruction has previously been discussed and related to the concept of autonomy.
support (Summers et al., 2009) (Section 6.1.4). According to self-determination theory, autonomy is one of three basic universal psychological needs that must be satisfied for individuals' spiritual health and well-being (Andersen, 2000; Ryan & Deci, 2000). A typical autonomy supportive teacher will demonstrate behaviours such as listening to students, asking students what they want, responding to student generated questions and supporting student motivation (Reeve et al., 2004). During the process of modification of the QTIHE items from the factor student responsibility/freedom scale were replaced with the items from the autonomy support scale of the Learning Climate Questionnaire (LCQ) (Williams & Deci, 1996). The rationale for this decision has been addressed in Section 6.3.

There are no published studies that explore the association between student-focused teaching and the frequency of incivility in higher education classrooms. However, Vansteenkist et al. (2012) found that the absence of autonomy support is associated with the greatest engagement in problem behaviour in schools and within the context of classroom incivility, teachers who displayed autonomy support have been identified as more tolerant of classroom incivility (Summers et al., 2004). There is therefore a need for further research that explores the relationship between student-focused teaching and incivility.

This research also determined that the frequency of classroom incivility increases when teachers are seen as being dissatisfied and uncertain (Table 20). There is little research related to this specific aspect of the student teacher relationship and its impact on student behaviour. However lower achievement and student satisfaction has been correlated with high ratings of teachers’ dissatisfaction and uncertainty utilising the original QTI in higher education in Indonesia (Fraser et al. 2010). Students have identified similar categories of teaching behaviour, such as being apathetic and not knowing the subject matter, as negative teacher attributes and conversely, assertive behaviour in teachers has been deemed crucial in maintaining effective classroom management (Marzano & Marzano, 2003). Again, the area of negative aspects of student-teacher interactions and their impact on incivility in higher education necessitate further research and examination.
10.4 Chapter summary

This chapter has addressed the aims and research questions of this thesis. The prevalence of student classroom incivility in one higher education institution in the UK has been described and comparisons with existing literature are made. The types of incivility in the form of categories identified from quantitative and qualitative data have been discussed and importantly for this mixed-methods design study integration of quantitative and qualitative data has ensued. Significant findings that serve to explain the relationship between classroom incivility and student-teacher interactions have been considered. This chapter also emphasises the complex nature of classroom incivility and its relationship with teacher interactions. Some useful theoretical concepts are proffered, specifically student boredom proneness and self-regulation; these are areas that merit further research.
Chapter 11 Discussion of originality, contribution and limitations

11.0 Chapter outline
This chapter outlines aspects of this thesis that incorporate an original contribution to existing literature and limitations. These will be addressed in two sections firstly relating to the psychometric evaluation of the QTI and secondly the exploration of students’ classroom incivility in higher education. A synopsis of the originality, contribution and limitations of the methodology is included with specific reference to the use of quantitative and qualitative classroom observations and the employment of a mixed-methods content analysis. The ‘usefulness’ and implementation of the findings on practice are defined, particularly focusing on teachers’ reflective practice and professional development. Areas for prospective future research are identified to include subject and methodological potential. Finally a framework for evaluation of a mixed-methods study is applied to demonstrate rigour in this approach.

11.1 Originality
11.1.1 Psychometric evaluation of the QTI: Originality
The QTI has been used internationally to measure students’ perceptions of student-teacher interaction within a compulsory, secondary education setting. Studies have been identified that have utilised the QTI within a higher education context in Indonesia (Fraser et al., 2010) and the Pacific Islands (Coll et al., 2001; Coll et al., 2002; Coll & Fisher, 2000). The evaluation of validity and reliability of the QTI within this thesis is unique in that it has been conducted within a UK higher education context. In addition, the concept of classroom incivility in higher education classrooms has not previously been addressed through the application of a learning environment instrument.

11.1.2 Exploration of students’ classroom incivility in Higher Education: Originality
Within this thesis a mixed-methods approach was utilised to explore student-teacher interactions and incivility in higher education classrooms in the UK. There is no previously published research that has addressed this problem within UK based literature. There are several ways therefore that the findings of the exploratory study on incivility demonstrate originality. Firstly in addressing the
research questions what is the prevalence of student incivility in UK higher education classrooms? (Research Question 1) and secondly what types of student incivility occur in UK higher education classrooms? (Research Question 2).

These areas have not been addressed in previously published research. The importance of addressing this issue is emphasised in Section 1.1 in that students and teachers in the UK are experiencing high levels of disruptive classroom behaviours within higher education (Lee, 2007; Tahir, 2007) and that this is deemed by both students and teachers to be problematic.

11.1.3 Theoretically linking teacher characteristics and student incivility: originality

In addition, this study is the first that addresses an aspect of the issue of incivility within higher education classrooms within the theoretical framework of learning environments research by utilising the QTIHE when examining the relationship between students’ perceptions of student-teacher interaction and classroom incivility in higher education (Research Question 3).

11.2 Contribution

11.2.1 Psychometric evaluation of the QTI: Contribution.

Following evaluation and modification of the QTI the instrument was renamed the Questionnaire on Teacher Interaction in Higher Education (QTIHE). This modified psychometric measure can be utilised by researchers to measure students’ perceptions of student-teacher interactions in a UK higher education context and within the arena of learning environments research. The QTIHE is an addition to the catalogue of existing learning environments instruments. Specifically, the QTIHE contributes to the collection of learning environments that have a theoretical underpinning within the systems perspective of communication (Waltzlawisk et al., 1967) and draw on a theoretical model of interpersonal behaviour (Leary, 1957). (see Section 5.1). Moreover, the development of the QTIHE within this study enables an aspect of the concept of classroom incivility within a higher education classroom context to be uniquely viewed within the theoretical framework of learning environments research.
11.2.2 Exploration of students’ classroom incivility in Higher Education: Contribution

Results of this exploratory research conclude that incivility is present in the higher education classroom (Section 10.1.1.) This confirms and contributes to that which has been reported anecdotally and is congruent with the findings of other international studies on classroom incivility (Al-Kandari, 2011; Ausbrooks et al., 2011; Black et al., 2011; Clark, 2008a; Clark, 2008b; Clark et al., 2010; Del Prato, 2013, Luparell, 2003;) thus adding to the growing corpus of incivility literature.

Importantly, this study raises issue for debate and the need for further research regarding incivility within a UK higher education context due to its potential negative consequences on teaching and learning. The detrimental impact of student classroom incivility on both students and teachers has been highlighted within the literature review (see Section 2.4.1) and include decreased student involvement in classrooms, increased negativity regarding student perceptions of their own academic and intellectual development, students academic achievement and student retention. The literature on effect of classroom incivility on teachers is limited but incorporates reports of teachers feeling stressed, discontented and demoralised. If left unaddressed issues of incivility can 'spiral' resulting in increased levels or escalate to more serious, aggressive types of incivility. In either case teachers can be left feeling anxious, stressed and intimidated. The long-term ramifications of classroom incivility can ultimately lead to resignation from their teaching roles (Section 2.6.2).

As previously highlighted in Section 8.4.3 in the case of classroom incivility although categories of incivility exist they were not deemed appropriate for use in this exploratory study due to a lack of published rigour in relation to their development; therefore new categories of incivility were developed. A mixed-method content analysis enabled identification of types of incivility. Earlier literature has proffered various typologies however the quality of the processes of identification of these types has not been validated. In addition, the identification of patterns and context of incivility within the classroom have been initiated. These types can be utilised in further studies on classroom incivility.
11.2.3 Theoretically linking learning environments with student incivility: contribution

This study is unique in exploring the concept of classroom incivility within the theoretical framework of learning environments research by utilising the QTIHE to ascertain students’ perceptions of their teacher and correlate these with the prevalence of incivility within their classes (see Research Question 3). Results of this exploratory study demonstrated a highly statistically significant negative correlation between the frequency of classroom incivility and student ratings of positive personal attributes and student-focused teaching in the classrooms included in this study. These findings within a UK context therefore confirm the finding of previous research that equates an increase in students’ perceptions of teachers’ positive personal attributes with a reduction in the level of classroom incivility in the USA (Boice, 1996; Goodboy & Myers, 2009; Trad et al., 2012). Conversely, statistically significant large correlations were shown between higher levels of incivility and student perceptions of an uncertain and dissatisfied teacher. These findings contribute to the literature that reports an association between students’ negative views of a teacher and adverse outcomes for example lower student achievement (Coll et al., 2010).

The QTIHE draws its theoretical underpinnings on the systems perspective of communication (Walzlawick et al., 1967) and a theoretical model of interpersonal behaviour (Learly, 1957) (see Section 5.1). Within the systems perspective of communication it is assumed that the behaviour of receiver (in this case students) are influenced by the communication behaviour of the commander (teacher). In this study the results demonstrate a highly statistically significant correlation between the frequency of classroom incivility and students perceptions of aspects of their interactions with their teachers. The model of interpersonal behaviour focuses on the teacher as a variable within the learning environment and has been utilised in this study to identify specific factors that relate to teacher interactions and high levels of student incivility within a UK higher education classroom context.
11.2.4 A proposed Ecological Model of Student Classroom Incivility in Higher Education Classrooms (EMSCIHE): Contribution

Figure 9. Ecological Model of Student Classroom Incivility in Higher Education (EMSCIHE)
11.2.4.1       Background of the EMSCIHE

The use of an ecological model to represent student classroom incivility in higher education (Figure 9) aims to illustrate the complex and interactional nature of the concept, identify how the model relates to the theoretical background of the thesis and to propose a model that can be used as a pedagogical tool in relation to student classroom incivility that is perceived to be problematic.

Ecological models recognise the interwoven relationship that exists between the individual and their environment. Ecological models have their foundations in Bronfenbrenner's (1979) ecology of human development, a theory which states that human development is shaped by their surrounding environment and recognizes the ability of individuals to influence and be influenced by nested systems or layers. He described these systems as being like being a series of Russian dolls, where the innermost system represents the individual, which is then surrounded by differing levels of environmental influences. These systems are the microsystem, the mesosystem, the exosystem and the macrosystem. The microsystem is the system closest to the person, individuals are not mere recipients of their experiences when socialising with people in the microsystem environment, but are contributing to the construction of the environment. The mesosystem is where a person's individual Microsystems do not function independently, but are interconnected and assert influence upon one another. These interactions have an indirect impact on the individual. The exosystem refers to a setting that does not involve the person as an active participant, but still affects them. This includes decisions that have bearing on the person, but in which they have no participation in the decision-making process. The macrosystem encompasses the cultural environment in which the person lives and all other systems that affect them. Ecological models have been adapted to explain complex models such as childhood obesity (Opalinski, 2006), postpartum depression (Garfield & Isacco, 2009), workplace bullying (Jackson, 2011) and school climate (La sally, Meyers, Varjas & Roack, 2015).
11.2.4.2 Description of the EMSCIHE

The model of student incivility in higher education classrooms (EMSCIHE) (See figure 9) consists of four multi-level systems that focus on factors that have the potential to contribute to and impact upon the prevalence of student incivility in higher education classrooms.

The EMSCIHE is based on evidence that no single factor can explain the prevalence of student incivility in higher education classrooms. The levels within the EMSCIHE are drawn from the existing published literature and the findings associated with this thesis that have been reported as having positive, and/or negative impact on the prevalence of incivility. The inclusion of both existing published empirical outcomes and the findings of this thesis add breadth to the model and in addition incorporate research from both a UK context and international perspective thus supporting its global utility. In addition, the EMSCIHE illustrates the complex and multi-faceted nature of the concept of student classroom incivility within a higher education context. The levels, in the diagrammatic representation of the EMSCIHE signify the interplay between individual, interpersonal, organisational and sociological factors.

Individual

The individual level refers to individual student variables such as disposition (eg. boredom proneness), learning-related attitudes (eg. sense of entitlement) and academic behavioural self-regulation. A sense of student entitlement has identified as contributing to classroom incivility by Achacoso, (2002); Clark (2008c); Chowning & Campbell, (2009); Nordstrom et al., (2009) and Kopp & Finney, (2013). (See section 10.2.2.3). Boredom has been associated with classroom behaviours that are similar to those perceived as being uncivil be students and teachers (Lepp et al., 2013; Mann & Robinson, 2009; Pekrun et al., 2010; and it is suggested that some students are more prone to boredom than others (Mann & Robinson, 2009). Within this thesis the category of incivility signalling has been associated with the perceptions of student incivility and students exhibiting behaviours that have been viewed as symptoms of boredom and also reported as perceived incivility such as sleeping in class and yawning loudly (See section 10.2.1.5). Student self-regulation has been linked to technology related student incivility by Wei et al. (2012) who
specifically focused on texting in higher education classrooms. The results of their study demonstrated that students who habitually text in class are shown to have low behavioural self-regulation (self-control), an attribute also suggested by Lepp et al. (2015) as being associated with increased use of mobile phones for leisure purposes in higher education classrooms (See section 10.2.1.4).

Interpersonal
The interpersonal level encompasses teacher factors that include individually located variables and pedagogical styles such as immediacy, positive personality traits, student-focused teaching and rankism. These factors impact on student-teacher interpersonal interactions. Low teacher immediacy and its association with higher levels of incivility was first reported by Boice (1991) and Kearney et al (1991). Non-immediate teachers have also been identified as a precursor for increased incivility by Alberts et al (2010) and as influencing an increase in anti-social classroom behaviours (LaBelle et al., 2013) (See section 2.5.1) Within this thesis a statistically significant correlation was reported between teachers personal characteristics and observed frequency of student classroom incivility. When students perceived their teachers as having higher ratings of positive personal attributes and utilising student-focused teaching, the frequency of classroom incivility was lower (See section 9.6) Rankism (“the abuse of power based on a person’s rank and position which occurs when people abuse their power to demean or disadvantage those that they outrank”. Fuller, 2003, p.3) has also been cited as contributing to student incivility in higher education classrooms When asked which factors they felt were responsible for instigating student incivility, participants cited teacher rankism as one of several precursors (Clark 2008b) (See section 2.5).

Organisation
Organisational factors are defined as those that are influenced by organisational processes such as student stressors, class size and programme professional status. Stressors have been reported as contributing to student incivility (Clark, 2008c). Students and teachers identified three major themes related to student stress, namely demanding workloads, competition in a high-stakes academic environment and feeling compelled to cheat to compete for grades (See section 2.5.1). Class size has also been associated with classroom incivility. Increased
class size and increased student incivility has been described by Alberts et al (2010); Cooper and Robinson (2000); Hirschy and Braxton (2004) and Tilley (2014) (See section 2.5.1) however within this thesis results demonstrated that group size has a large effect on the weighted frequency of incivility with smaller classes being higher in incivility (See section 9.4). Studies of student incivility have focused on the perception of students and teachers within a specific academic discipline such as accounting (Elder et al., 2010), business (Seidmen, 2005), education and psychology (McKinne & Martin, 2010) and geography (Alberts et al., 2010). In particular there appears to be interest in how students experience incivility across various professional disciplines for example nursing (Clark & Springer, 2007, Clark, 2008; Clark et al., 2010), social work (Ausbrooke et al., 2011) and dentistry (Rowland & Srisukho, 2009). There is an expectation that students on professional programmes exhibit lower levels of classroom incivility than students who are not undertaking professional training (Swinney et al., 2010). Results within this thesis confirmed those beliefs and found that studying for a professional versus a non-professional degree had a large effect on the weighted frequency of incivility with classes of students studying for a non-professional award being higher in incivility (See section 10.1.2).

Sociological
Sociological factors within the EMSCIHE encompass sociological factors, a set of interrelated propositions or principles designed to answer a question or explain a particular phenomenon. Sociological theories may help to account for students’ disruptive classroom behaviour and these have been discussed in section 2.5.2 of this thesis. These theories include Deterrence theory (Akers 1997), Social bond theory (Hirschi 1969), Social disorganization theory (Akers 1997) and Anomie theory (Bray and Del Favero 2004).

According to deterrence theory (Akers, 1997) incivilities in the classroom are mediated by the perception of being caught or the punishment likely to be encountered. When there are no set rules and the likelihood of punishment is low deterrence theorists would argue that incivilities will increase, conversely having strict guidance and related penalties will reduce the incidence of incivility. Social bond theory (Hirschi as cited in Durkin, Wolfe & May, 1999) focuses on the strength
of social ties within a group. A strong attachment to peers who participate in classroom incivility such as side conversations, persistent late arrivals or early departures increase the likelihood of one’s own participation in incivility. According to social disorganisation theory (Akers 1997) rapid changes in society or in a group can cause a change in social values such that patterns of behaviour in the group are changed. Entering higher education involves a period of self–adjustment and exploration as students seek to fit in with peer groups. According to Bray & De Favero, (2004) difficulties in coping with the transition may cause students to reduce attention to their educational pursuits and engage in classroom incivility. Anomie theory (Bray & Del Favero, 2004) posits certain ‘normalness’ in society. Anomie often arises in a society growing increasingly complex and as a result there are fewer commonalities binding people together. As a result people feel less attached to the society and its rules. In an increasingly diverse student population linked to widening participation targets these divisions may be profound, leading to students disregarding rules and regulations that are in place and engaging in behaviours that are perceived as uncivil.

11.2.4.3 Theoretical framework of the thesis and the EMSCIHE
The EMSCIHE supports the theoretical framework of the study (see Section 5.1). The foundations of learning environments research recognised that both the environment and individual were powerful determinants of human behaviour (Lewin 1936). The model of incivility suggests that the environment (student internal and sociological factors) and individual (student internal, student external and teacher factors) influence students’ behaviours with respect to classroom incivility. In addition, the systems perspective of communication (Watzlawick et al 1967) assumes that the behaviour of participants, in this case students and teachers, mutually influence each other and this is reflected in the interactional nature of the model.

11.2.4.4 Applications of the EMSCIHE
The EMSCIHE has the potential to be used as a pedagogical tool in classrooms where teachers perceive student incivility to be problematic. In considering the four levels of the EMSCIHE teachers can utilise appropriate strategies to identify potential contributors to classroom incivility. At an individual level the self-regulation
scale from the Motivation Strategies for Learning Questionnaire (Pintrich & De Groot, 1990) could be utilized to measure students’ self-regulation. At interpersonal level teachers may adopt appropriate tools to such as the QTIHE to gain students’ perceptions of their teacher’s interactions. At organisational level institutional interventions may be considered to facilitate students being supported in managing the demands of higher education (eg. time management skills). At the sociological level evaluation of student preparation prior to entering higher education in relation to expected behavioural norms might be required (eg. preparation in relation to the appropriate use of technology within a higher education context).

This thesis has highlighted the complex nature of student classroom incivility in higher education. It is suggested that the first step in addressing classroom incivility is to assess and attempt to understand its presence and to respond appropriately (McNaughton-Cassill, 2013). The information gleaned from using the EMSCIHE as a pedagogical tool could therefore enable teachers to identify and reflect upon the factors that can contribute to classroom incivility, which may then be ameliorated by the implementation of appropriate pedagogical strategies.

11.3 Methodology

11.3.1 Methodology: Originality

The uniqueness of the evaluation of validity and reliability of the QTI and its subsequent modification for use within a UK higher education context has been emphasised (Section 11.1.1). Furthermore, the utilisation of the renamed modified QTIHE to explore students’ classroom incivility in higher education is unique as it is the first time that the QTIHE has been utilised to collect primary research data.

Earlier studies are predominantly based on students’ and teachers’ reporting of levels of incivility through the use of surveys and interviews. These surveys utilise rating scales that measure perceived incidence of specified uncivil behaviours, for example using scale anchors on three-point scales such as never, occasionally and frequently (Alberts et al., 2010) and on four-point scales such as never, rarely, sometimes always (Clark & Springer, 2007; Swinney et al., 2010) thus collecting subjective data, that is, based on personal opinion. This exploratory study uses observational methods to collect data pertaining to the frequency and types of
student classroom incivility. Only one previous study (Boice, 1996) has used observational methods to collect data on classroom incivility and confirm its presence, however the frequency of incivility was not recorded. The process of semi-structured classroom observations provided a unique opportunity to collect data on student behaviour and the merits of this approach were discussed in Section 7.1.

In this exploratory study, content analysis is used to explore and describe types and patterns of student incivility (Section 8.4). Traditionally, two polarised types of content analysis are depicted ranging from intuitive, interpretive to strict, systematic analyses (Hsieh & Shannon, 2005). The approach to content analysis used in this study is positioned between these two opposing extremes and required a more innovative stance and therefore for the purpose of this study a mixed-methods content analysis was used. Utilising a mixed-methods content analysis adds a further aspect of originality to the methodology within this thesis as no identified published research has used this approach.

11.3.2 Methodology: Contribution
In noting the presence of incivility at different levels across all classes this exploratory research confirms the finding of the only published study that has utilised observation methods in recording classroom incivility in higher education (Boice, 1996). The exploratory research in this thesis also contributes a unique aspect to this field of enquiry by measuring the prevalence of classroom incivility.

Within the exploratory study, data is modelled at the appropriate level. Data pertaining to students’ perceptions of teacher interactions were collected from individual students utilising the QTIHE. This data was then aggregated into classes in order to model correlations with observation of levels of classroom incivility which were measured by class not person.

The use of a mixed-methods content analysis used in this exploratory study could provide a model for use within subsequent research that utilises a mixed-methods approach, specifically within data analysis.
11.3.3 Methodology: Limitations

A concurrent, mixed-methods approach, encompassing a case study design was implemented to conduct this exploratory research. This entailed collecting quantitative and qualitative data within the same time frame across four different cases with differing inclusion criteria. This necessitated a complex path to data collection, analysis and presentation of results and a pragmatic position was required. Specifically, when addressing the issue of collecting quantitative and qualitative data through classroom observation there was little existing direction in the methodological literature on taking a non-polarised stance. In addition, the process of analysing mixed-methods data through the process of semi-structured content analysis required considerable investigation, as there is a dearth of supporting guidance related to this process. In essence, this signifies that decisions made regarding analytical methodology and use of a mixed-methods content analysis for this aspect of the study are based on limited reinforcing literature; this could be viewed as a limitation.

Although correlation analysis was utilised to link observation of students’ classroom incivility with students’ perceptions of their teacher it is not possible to establish causality; student perceptions of their interactions with teachers may instigate students’ classroom incivility or vice versa (see Section 2.5.1). Causality is more difficult to establish and the most effective way of doing this is through a controlled study and attempting to control for confounding variables that may impact on prevalence of classroom incivility.

This research was conducted at one institute of higher education and hence, the study findings may be limited to the specific context in which the study was conducted. However, certain results of this study are congruent with those of extant internationally published research, for example the prevalence of types of incivility in higher education classrooms (Section 10.2), thus validating their findings of the existence within other higher education environments.

One researcher collected data within this study and the merits and limitations of this have been discussed in sections 7.3 and 7.6. In addition, the researcher was an employee of the institution where the study was undertaken. Issues related being
an insider-researcher, both ethical and methodological have been addressed in sections 3.3.3; 4.4; 7.2; 7.3 and 7.4

Generalisability concerns the extent to which the participants and context of a study are representative of, the wider population. External validity questions under what conditions and with what types of subjects the same results can be expected to occur (Wetcher-Hendricks, 2011). The participants in this study were undergraduate students from two professional and two non-professional programmes at one UK University. It is therefore realistic to assume that the results could apply to undergraduate students on similar programmes within a UK higher education context.

The issues of gatekeepers and the problematic issue of gaining access to classrooms has further been addressed (Section 7.4) This raises the matter that access could be self-selecting; that is that teachers who refused permission to collect data in their classes may have perceived greater issues of incivility in their classrooms compared to teachers that consented. However, data from this exploratory study suggests that this was not the case as classes were observed to have varying levels of incivility.

In addition, ethical consent was exclusive of observing and recording teachers’ behaviour as the focus of this study was confined to students’ classroom incivility and hence the application for ethical approval was solely to covertly observe students’ behaviour. In reality, as discussed in the literature on incivility and as is evident in the results of this research, the two are intrinsically linked (Section 2.5.1). It could therefore be viewed as a missed opportunity to be unable to record and utilise this information. In practice, observation of teacher behaviour would have provided criterion validation of students’ perceptions of interactions with their teacher. Gaining retrospective ethical approval could be one solution, however good ethical practice would require the advice of the appropriate ethics committees (British Psychological Society 2009:4.1).
11.4 Application to educational practice

Given the extent of anecdotal concerns highlighted at the beginning of this thesis (Section 1.1) regarding classroom incivility in the UK, the results will be of interest and value to teachers within a higher education context. For some this research will reassure them that they are not alone in their experiences and concerns regarding student behaviour.

The literature recognises the role that teachers play in students’ incivility (Boice, 1996, Clark & Springer, 2007; Clark et al., 2009; Lasiter et al., 2012). This study has reaffirmed those views that incivility is an ‘interlocking phenomenon’ (Braxton & Byer, 2004) and the results of previous research connecting student behaviour with teachers personal attributes has been reinforced (Boice, 1996; Golish & Olson, 2000; Goodboy & Myers, 2009; Trad et al., 2012). In addition, negative teacher personal attributes have been associated with decreased student achievement and satisfaction (Tang et al., 2014). It is suggested therefore that teachers consider their role in classroom incivility and the use of the QTI provides an opportunity to ascertain their students' perceptions of their classroom interactions. In fact, previous studies have utilised the QTI to inform secondary education teachers’ professional development (Rickards & Fisher, 2000). In addition, staff development was used by Boice (1996) to enhance teacher immediacies; this had the effect of reduced levels of student incivility in the classrooms of the participants.

The QTI has been utilised by the author of this thesis to facilitate higher education teachers in evaluating and reflecting on their classroom learning environment. The QTI was introduced to staff on the Postgraduate Certificate in Higher Education Teaching and Learning Support (PGCHELTS) Programme at the author’s own university. Lecturers on the PGCHELTS programme were asked to volunteer to evaluate their teaching by asking students within their class to complete the Actual Teacher version of the QTI. Teachers were then interviewed on an individual basis to receive feedback and discuss the findings of the data analysis. Lecturers then used the results to reflect on and develop their teaching practice (Rivas [now Keating] & Woolnough, 2010).
Evidence from this exploration of students’ classroom incivility in higher education (Section 10.1.2.4) and others (Alberts et al., 2010; Bjorkland & Rehling, 2010; Clark & Springer, 2007; Clark et al., 2010; Gallo, 2012; Lashley & De Meneses, 2001; McKinne & Martin, 2010) has highlighted that the inappropriate use of technology is rife in higher education classrooms. Their uncivil technology-based behaviours included checking email, using instant messaging, surfing the Internet, playing computer games, and other activities such as online shopping. The impact of inappropriate use of technology has been highlighted (Section 10.1.2.4) and its impact on cognitive learning (Wei et al., 2012) and negative correlation with academic performance (Harman & Sato, 2011; Sana et al., 2012) has been reported. Current research has addressed student self-regulation and its relationship to technology misuse in class (Wei et al., 2012) and offers some insight into understanding this category of incivility. Familiarisation with such research will give teachers a greater insight and enable development of strategies to deal with this type of incivility.

11.5 The potential for future research
This research and the preceding literature review have identified potential for further study on incivility in higher education. Relationships were identified between student incivilities and the concepts of boredom and self-regulation in the discussion of categories that contexts incivility in classrooms. The specific categories that these concepts apply to are signalling (Section 10.1.2.5) and persistent incivility (Section 10.2.2.3). These concepts and their association with incivility, both from a student and teacher perspective, require additional investigation. This could be achieved by measuring students’ predisposition to boredom, for example using the Boredom Proneness Scale (Farmer & Sundberg, 1986) and the self-regulation scale from the Motivation Strategies for Learning Questionnaire (Pintrich & De Groot, 1990), correlated with self-reported levels of students’ classroom incivility.

This study focused on the prevalence and types of student incivility in classrooms utilising observational research methods. Although published literature exists on teachers’ classroom incivilities such as delivering fast-paced, non-involving and unclear lectures (Hanson, 2000), loss of patience, incompetence, poor teaching
style, poor communication (Clark & Springer, 2007), unfairness, rigidity, discrimination, unreasonable expectations of students and being overly critical (Thomas, 2003), these are all based on student perceptions. An observational study of teachers’ classroom incivilities would enhance the pre-existing research refuting or reaffirming these reports.

A survey instrument for student and teacher perceptions of the frequency and impact of student incivilities, Incivility in Higher Education (IHE) survey, has been developed (Clark, Farnsworth, & Landrum, 2009). This instrument could be utilised to collect data from a larger UK sample of students and teachers. Use of this instrument would enable data on the frequency of classroom incivility to be elicited from the perspective of students and teachers within the UK and thus allow comparison of self-reported and observed levels on classroom incivility.

Moreover, there is potential for the development of an instrument to survey students’ perceptions of teacher incivilities. As identified in Section 2.4.2, Boice (1996) first highlighted in the literature the role that the teacher plays in initiating disruptive student behaviours in higher education classrooms. Subsequent studies have reported students’ perceptions of teacher classroom incivilities including their presence (Clark, 2008; Clark & Springer, 2007; Del Prato, 2013; Hanson, 2000; Lasiter, 2012; Thomas, 2003) and impact (Braxton, 2004; Braxton & Bayer, 2004; Clark, 2008; Mott, 2014; Thomas, 2003). A recent development in the research on incivility in higher education in the USA is the exploration of teacher–to-teacher incivility (Clark et al., 2013) and the development of the Faculty-to-Faculty Incivility Survey (F-F I Survey). The addition of a teacher-to-student survey would enable alternative perceptions of classroom incivility to be measured. Furthermore, utilisation of the FF1 survey would add to the literature on incivility within UK higher education contexts.

In this exploratory study statistically significant negative correlations were found between the frequency of classroom incivility and students' ratings of teachers' interactions. In each case the same group of students were observed during four classes with four different teachers (Section 3.2). Alternatively a further study could employ cases where classes are observed utilising the same teacher and differing
groups of students. Correlation could then be calculated of the incidence of students’ classroom incivility with students’ perceptions of the teachers’ interactions across different groups with the same teacher.

11.6 Evaluation of a mixed-methods approach.

Mixed-methods research is still in its infancy when compared to research that is purely quantitative or qualitative in its focus. Researchers have yet to reach consensus on the criteria that might be used to evaluate or assess the quality of such a study (Heyvaert, Hannes, Maes, & Onghena, 2013). Because a mixed-methods study is more than the sum of individual quantitative and qualitative strands (Day et al., 2008; Hall & Howard, 2008) the combined application of quantitative and qualitative critical appraisal criteria is not sufficient to evaluate the methodological quality of a primary mixed-methods enquiry. The significance of evaluating a mixed-methods study is to ensure clarity and rigour. Furthermore, evaluation frameworks are used to assess the quality of studies prior to publication or inclusion in systematic reviews. To evaluate the quality of this mixed-methods study the framework of Creswell and Plano-Clark (2007) will be used. This framework was chosen due to the underpinning pragmatic philosophical stance underlying the framework; that is, its’ utility and fit for purpose. Each of the criteria of the framework will be addressed individually.

Criterion 1: Is the study a mixed-methods study?

This study collects, analyses and integrates both quantitative and qualitative data. Quantitative data is collected through use of the QTIHE. Both quantitative and qualitative data is gathered through semi-structured classroom observations. Integration of data takes place in the mixed-methods content analysis phase and when presenting and discussing the results of the study.

Criterion 2: Does the study show rigorous mixed-methods research?

The rationale for conducting a mixed-methods study in this case is clearly stated in the introduction via the purpose statement (Section 1.2) and in the methodology chapter (Section 3.1.2). The rationale for utilising a mixed methods approach within this study is that of a complementary purpose, to examine, using quantitative and qualitative methods and explain student classroom incivility in higher education
using quantitative methods. Firstly the quantitative phase identified the prevalence of incivility whilst simultaneously, a qualitative phase provided context. In addition, a further quantitative phase utilising the QTIHE gives insight into explaining why incivility occurs, with emphasis on student-teacher interactions. The mixed-methods purpose statement (Section 1.3) further acknowledged the philosophical pragmatic approach and stated that a concurrent mixed-methods design was used; that is quantitative and qualitative data was collected simultaneously within the same time frame. Inferences from this study were linked to the development of new and existing knowledge and incorporated those arising from both the quantitative and qualitative strands of the research.

**Criterion 3:** Does the study include advanced mixed-methods features consistent with the type of mixed-methods design?

The design of this study is a concurrent, exploratory design (Creswell & Plano Clark, 2007). A mixed methods research question ‘An exploratory mixed-methods study of student incivility in higher education classrooms’ is stated (Section 3.1.4) as is the mixed–methods purpose statement (Section 1.2). Furthermore, advanced mixed-methods data collection and analysis in the form of semi-structured classroom observations and mixed-methods content analysis were included.

**Criterion 4:** Does the study show sensitivity to some of the challenges of using the design?

The challenges of using a mixed-methods approach in this exploratory mixed-methods study of students’ classroom incivility in higher education have been articulated throughout this thesis and specifically within the chapters on semi-structured classroom observations (Section 7.2), mixed-methods content analysis (Section 8.4) and within this concluding chapter (Section 11.2). Evaluation of the mixed-methods approach of this thesis concludes that a thorough and rigorous methodology has been adopted.

11.7 Conclusion

This exploratory research has utilised a mixed-methods approach to investigate an issue that has raised concerns from students and teachers in UK higher education; that of classroom incivility. Results of the study are pertinent to higher education
practitioners and provide recommendations for future practice and research. The evaluation of the methodology utilised in this enquiry demonstrates an original, challenging and rigorous approach.

11.8 Chapter summary
The final chapter of this thesis has highlighted the contribution to existing literature, originality and limitations of this mixed-methods exploratory study of incivility in higher education classrooms within a UK context. Application of the results to educational practice have been suggested, an ecological model of student classroom incivility proposed and areas of potential future research identified. Finally, evaluation of the mixed-methods approach within this enquiry utilising an established framework confirms its clarity and rigour.
Final conclusions

This exploratory mixed-methods research study aimed to address the received problematic matter of student classroom incivility in a higher education context. As no published literature was located that addressed this issue within the United Kingdom, utilising a mixed methods approach was deemed appropriate to investigate the prevalence and types of incivility that existed and furthermore to explore one specific area that existing literature suggests might be associated with student incivility, that of student-teacher interactions.

To enable the specific research questions to be addressed, a pragmatic approach to mixed-methods data collection and subsequent analysis was adopted. This raised some challenges due to a paucity of existing published frameworks to support the methods that were utilised. Furthermore, as a multi-case study design was used, a model for analysing data within a mixed methods approach, utilising a multi-case study design, was developed. The literature on mixed-methods research cautions that utilising quantitative and qualitative data collection methods within an investigation may conclude in a study that essentially contains two separate components. In this exploratory research a mixed-methods purpose statement and evaluation framework identify integration of the quantitative and qualitative elements.

The controversial matter of utilising covert methods of data collection within this study has been ethically deliberated. It has been demonstrated that provision of a good ethical and methodological case to proceed with covert methods can outweigh the concerns regarding the absence of participant consent.

Quantitative data was collected to ascertain students’ perception of their interactions with teachers in the classroom environment. Psychometric evaluation and subsequent modification of the QTI Version led to a revised five factor 31 item structure. The theoretical considerations related to the QTI were deliberated and the instrument was renamed the QTIEEE.
The prevalence of student classroom incivility in one higher education institution in the UK has been described and comparisons with existing literature have been made. The types of incivility in the form of categories identified from quantitative and qualitative data have been discussed and, importantly for this mixed-methods design study, integration of quantitative and qualitative data ensues. In addition, a statistically significant association was reported between prevalence of classroom incivility and specific student-teacher interactions.

Finally, this exploratory research has utilised a mixed-methods approach to investigate an issue that has raised concerns from students and teachers in UK higher education; that of classroom incivility. Results of the study are pertinent to higher education practitioners and provide recommendations for future practice and research. The evaluation of the methodology utilised in this enquiry demonstrates an original, challenging and rigorous approach. A proposed Ecological Model of Student Classroom Incivility in Higher Education (EMSCIHE) provides a pedagogical tool for practitioners who are experiencing classroom
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04 June 2015

Paula Keating
6 Carr Lane
Lathom
Ormskirk
Lancashire
L40 4BT

Dear Paula,

As requested, the Research Office can confirm that it holds a record of research ethics approval for your doctoral thesis project, comprising the two e-mails enclosed with this letter:

- Dated 24 September 2010 from the then chair of the University Research Ethics Committee, Paul Reynolds confirming conditional approval.
- Dated 23 January 2012 from your Director of Studies confirming the conditions had been met.

Yours sincerely,

[Signature]

Dr Nikki Craske
Director of the Research Office

Enc.
Dear Paula

First of all, congratulations on your marriage.

I have had the time to review your proposal and the advice and judgement of the SPS Research Ethics Committee on your proposal, and Liz Connors views on the issue of process.

I feel able to take Chair's Action on this matter in respect of the following:

1. That although your proposal was processed contrary to standard processes at the University:
   a. This was through a genuine misconception of process
   b. the ethical scrutiny that the SPS committee engaged in was of commensurate thoroughness to any scrutiny that the University REC would make
   c. it would be inappropriate and unjust in this case to require that you undertake a similar process again

I am therefore willing to confirm ethical approval for your project - and to confirm that this approval was effectively granted from the decision of the SPS Committee - with the following conditions:

1. You lodge with Julie Proud a short document that simply confirms your responses to the SPS scrutiny and indicates any changes you have made to your research practice as a result in this project. This may include revised research tools, such as consent forms. This needs to be with Julie Proud (proud@edgehill.ac.uk) by the 25th October so the case can reported as decided at the REC on the 27th.

2. You arrange for your Supervisor to send me a brief e-mail, copied to Julie, confirming an awareness of the requirements set by the SPS REC and your compliance with any conditions advice, in lieu of their absence of comment and signature on the original submission.

Please feel free to come back to me and the University REC should issues of an ethical nature arise in the project as it is operationalised.

Best Wishes and good luck with your research,

Paul

Paul Reynolds
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Programme Leader in Sociology and Social Psychology
Department of Social and Psychological Sciences
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e-mail: reynoldp@edgehill.ac.uk

Hi Paul, hope you are well.

is there any news yet on my institutional ethics application?

Best wishes

Paula
From: Dave Putwain
To: Paul Fox; Paula Keating
CC: Anthony Ivessedge; Kevern Verney; Richard Parrish
Date: 23/01/2012 14:19
Subject: Re: Research ethical approval application

Hello,

I can confirm that the documentation Paula supplied to the Grad School Office for her transfer viv& was in full compliance with the conditions required by the DSAPS REC, Dave

Dr Dave Putwain AFBPsS, C. Psychol,
Programme Leader BSc (Hons) Educational Psychology,
Senior Lecturer in Psychology
Department of Psychology (SPS120),
Edge Hill University,
St Helens Road,
Ormskirk, L39 4QP
England.
Tel.: 01695 584498

>>> Paula Keating 23/01/2012 12:47 >>>
Hi Paul

Please find attached the documentation as requested. I also attach a copy of the original e-mail from Paul Reynolds.
I will ask Dave Putwain to send an e-mail confirming my compliance with the DSAP recommendations (as requested by Paul)

ps Some document in may make reference to my previous surname (Rivas)
Regards

Paula Keating

>>> Kevern Verney 18/01/2012 07:54 >>>
Dear Paula

I'm pleased to report that Prof Richard Parrish, Chair of the University Research Ethics Committee, is happy to confirm the ethical approval granted by the former Chair of the Committee. Paul Reynolds, in his e-mail of 24. 9. 10. The same conditions are attached - can you forward fresh copies of the documentation requested by Paul Reynolds to Paul Fox in the Research Support Office and also copy them to Richard and myself.

Best wishes

Kevern
Appendix 2

Figure 10. Hypothesised model (Model 1) of factorial structure for the QTI
Appendix 3

Figure 11. Respecified model (Model 3) of factorial structure for the QTI

Respecified model of factorial structure for the Questionnaire on Teacher Interaction Actual Version.
Appendix 4

Figure 12. Final model (Model 3) of factorial structure for the QTI
Table 3. *Selected AMOS output for Hypothesised Model. Model 1 QTI: Modification Indices: Covariances.*

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Appendix 6

Table 6. Selected AMOS output for Hypothesised Model. Model 1 QTI: Modification Indices: Regression weights.

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</tr>
<tr>
<td>ATQ26  ----&gt; ATQ admonishing</td>
<td>16.973</td>
<td>-.762</td>
</tr>
<tr>
<td>ATQ26  ----&gt; ATQ Uncertain</td>
<td>13.932</td>
<td>-.364</td>
</tr>
<tr>
<td>ATQ26  ----&gt; ATQ Understanding</td>
<td>23.256</td>
<td>.529</td>
</tr>
<tr>
<td>ATQ26  ----&gt; Leadership</td>
<td>15.908</td>
<td>.680</td>
</tr>
<tr>
<td>ATQ26  ----&gt; ATQ Helping</td>
<td>20.557</td>
<td>.708</td>
</tr>
<tr>
<td>ATQ26  ----&gt; ATQ47</td>
<td>18.822</td>
<td>-.312</td>
</tr>
<tr>
<td>ATQ41  ----&gt; Student responsibility</td>
<td>10.013</td>
<td>.976</td>
</tr>
</tbody>
</table>
Appendix 7

Questionnaire on Teacher Interaction

Actual Teacher Questionnaire

This questionnaire asks you to describe the behaviour of your teacher.

This is NOT a test.
Your opinion is what is wanted.

This questionnaire has 48 sentences about the teacher. For each sentence, circle the number corresponding to your response. For example:

<table>
<thead>
<tr>
<th>This teacher expresses himself/herself clearly.</th>
<th>Never</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
</table>

If you think that your teacher always expresses himself/herself clearly, circle the 4. If you think your teacher never expresses himself/herself clearly, circle the 0. You also can choose the numbers 1, 2 and 3 which are in-between.

If you want to change your answer, cross it out and circle a new number.

Please answer all questions.

Thank you for your cooperation.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Never</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>This teacher talks enthusiastically about her/his subject.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.</td>
<td>This teacher trusts us.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>3.</td>
<td>This teacher seems uncertain.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>4.</td>
<td>This teacher gets angry unexpectedly.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>5.</td>
<td>This teacher explains things clearly.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>6.</td>
<td>If we don't agree with this teacher, we can talk about it.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>7.</td>
<td>This teacher is hesitant.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>8.</td>
<td>This teacher gets angry quickly.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>9.</td>
<td>This teacher holds our attention.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>10.</td>
<td>This teacher is willing to explain things again.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>11.</td>
<td>This teacher acts as if she/he does not know what to do.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>12.</td>
<td>This teacher is too quick to correct us when we break a rule.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>13.</td>
<td>This teacher knows everything that goes on in the classroom.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>14.</td>
<td>If we have something to say, this teacher will listen.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>15.</td>
<td>This teacher lets us boss her/him around.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>16.</td>
<td>This teacher is impatient.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>17.</td>
<td>This teacher is a good leader.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>18.</td>
<td>This teacher realises when we don't understand.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>19.</td>
<td>This teacher is not sure what to do when we fool around.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>20.</td>
<td>It is easy to pick a fight with this teacher.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>21.</td>
<td>This teacher acts confidently.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>22.</td>
<td>This teacher is patient.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>23.</td>
<td>It's easy to make this teacher appear unsure.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>24.</td>
<td>This teacher makes mocking remarks.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>25.</td>
<td>This teacher helps us with our work.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>26.</td>
<td>We can decide some things in this teacher's class.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>27.</td>
<td>This teacher thinks that we cheat.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>28.</td>
<td>This teacher is strict.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>29.</td>
<td>This teacher is friendly.</td>
<td>0</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>No.</td>
<td>Statement</td>
<td>Score Options</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>---------------------------------------------------------------------------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>30.</td>
<td>We can influence this teacher.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>31.</td>
<td>This teacher thinks that we don't know anything.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>32.</td>
<td>We have to be silent in this teacher's class.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>33.</td>
<td>This teacher is someone we can depend on.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>34.</td>
<td>This teacher lets decide when we will do the work in class.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>35.</td>
<td>This teacher puts us down.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>36.</td>
<td>This teacher's assessments are hard.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>37.</td>
<td>This teacher has a sense of humour.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>38.</td>
<td>This teacher lets us get away with a lot in class.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>39.</td>
<td>This teacher thinks that we can't do things well.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>40.</td>
<td>This teacher's standards are very high.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>41.</td>
<td>This teacher can take a joke.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>42.</td>
<td>This teacher gives us a lot of free time in class.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>43.</td>
<td>This teacher seems dissatisfied.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>44.</td>
<td>This teacher is severe when marking assessments.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>45.</td>
<td>This teacher's class is pleasant.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>46.</td>
<td>This teacher is lenient.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>47.</td>
<td>This teacher is suspicious.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>48.</td>
<td>We are afraid of this teacher.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 8

Actual Teacher Questionnaire factor structure

Teacher’s positive personal attributes
This teacher encourages us to ask questions
This teacher has a sense of humour
This teacher’s class is pleasant
This teacher gets to know students
If we have something to say, this teacher will listen.
The teacher tries to understand how we see things
This teacher is someone we can depend on
This teacher is friendly
This teacher conveys confidence in our ability to do well on the course
This teacher listens to how we would like to do things before suggesting new ways
to do things
This teacher wants students to succeed
This teacher makes us feel understood
This teacher is a good leader

Uncertain
This teacher acts as if he/she does not know what to do
This teacher treats us like children
This teacher seems uncertain
This teacher appears unsure
This teacher struggles to gain control

Dissatisfied
This teacher thinks that we cheat
This teacher thinks that we can’t do things well
This teacher puts us down
This teacher thinks that we don’t know anything
Student-focused teaching
This teacher explains things clearly
This teacher provides us with choices and options
This teacher helps us with our work
This teacher realises when we don’t understand
This teacher is willing to explain things again
This teacher makes him/herself available to students

Strict
This teacher’s expectations are high
This teacher’s standards are very high
This teacher will be severe when marking assessments
We have to be silent in this teacher’s class
This teacher is strict
Appendix 9

Modified Actual Teacher Questionnaire factor structure

Teacher's positive personal attributes
1. This teacher is a good leader.
6. This teacher is friendly.
11. This teacher is someone we can depend on.
16. This teacher has a sense of humour.
21. If we have something to say, this teacher will listen.
25. This teacher gets to know students
27. This teacher wants students to succeed
28. This teacher makes us feel understood
29. This teacher conveys confidence in our ability to do well in the course
30. This teacher encourages us to ask questions
31. This teacher listens to how we would like to do things
32. This teacher’s class is pleasant
33. This teacher tries to understand how we see things before suggesting new ways to do things

Uncertain
2. This teacher seems uncertain
7. This teacher acts as if she/he does not know what to do.
12. This teacher treats us like children
17. This teacher struggles to gain control.
22. This teacher appears unsure

Dissatisfied
3. This teacher thinks that we cheat.
8. This teacher thinks that we don’t know anything
13. This teacher puts us down.
18. This teacher thinks that we can’t do things well
Student-focused teaching
4. This teacher explains things clearly.
9. This teacher helps us with our work.
14. This teacher is willing to explain things again
19. This teacher realises when we don't understand
23. This teacher makes him/herself available to students
26 This teacher provides us with choices and options

Strict
5. This teacher is strict.
10. We have to be silent in this teacher's class
15. This teachers expectations are high
20. This teacher's standards are very high
24. This teacher will be severe when marking assessments
Appendix 10

Questionnaire on Teacher Interaction in Higher Education

Actual Teacher Questionnaire

This questionnaire asks you to describe the classroom interactions of your teacher.

This questionnaire has 33 sentences about the teacher. For each sentence, circle the number corresponding to your response. For example:

<table>
<thead>
<tr>
<th>This teacher expresses himself/herself clearly.</th>
<th>Never</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

If you think that your teacher always expresses himself/herself clearly, circle the 4. If you think your teacher never expresses himself/herself clearly, circle the 0. You can also choose the numbers 1, 2 and 3 which are in-between. If you want to change your answer, cross it out and circle a new number. Please answer all questions.

Thank you for your cooperation.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Never</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>This teacher is a good leader</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>This teacher seems uncertain.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>This teacher thinks that we cheat</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>This teacher explains things clearly</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>This teacher is strict</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>This teacher is friendly</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>This teacher acts as if he/she does not know what to do</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>This teacher thinks that we don't know anything</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>This teacher helps us with our work.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>We have to be silent in this teacher’s class</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>This teacher is someone that we can depend on</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>This teacher treats us like children</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>This teacher puts us down</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>This teacher is willing to explain things again</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>This teacher’s expectations are high</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>This teacher has a sense of humour.</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>This teacher struggles to gain control</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>This teacher thinks that we can't do things well</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>This teacher realises when we don't understand</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>This teacher’s standards are high</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>If we have something to say, this teacher will listen</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>This teacher appears unsure</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>This teacher makes him/herself available to students</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>This teacher will be severe when marking assessments</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>This teacher gets to know students</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>This teacher provides us with choices and options</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>This teacher wants students to succeed</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>This teacher makes us feel understood</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Score</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>This teacher conveys confidence in our ability to do well on the course</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>This teacher encourages us to ask questions</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>This teacher's class is pleasant</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>This teacher listens to how we would like to do things</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>This teacher tries to understand how we see things before suggesting new ways to do things</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 11

Dear student

I am a doctoral research student at Edge Hill University in Ormskirk Lancashire. This study is examining student-teacher interaction in higher education classrooms in the United Kingdom.

Enclosed with this letter is a questionnaire that asks a variety of questions about aspects of interactions with your lecturer.

If you choose to participate, do not write your name on the questionnaire. I do not need to know who you are and no one will know whether you participated in this study. Your responses will not be identified with you personally, nor will anyone be able to determine your course of study or university. Nothing you say on the questionnaire will in any way influence your present or future student status.

I hope you will take a few minutes to complete this questionnaire. Your participation is voluntary and there is no penalty if you do not participate.

If you have any questions or concerns about completing the questionnaire or about participating in this study, you may contact me on 01695 657031 or paula.keating@edgehill.ac.uk. This study has been approved by the Edge Hill University Institutional Research Ethics committee.

Regards

Paula Keating
Research student
Edge Hill University
St. Helens Road
Ormskirk
L39 4QP
Appendix 12

Dear lecturer

I am a doctoral research student at Edge Hill University in Ormskirk Lancashire. This study is examining the relationship between classroom incivility and student-teacher interaction in higher education classrooms in the United Kingdom.

The students in your class will be asked to complete the Questionnaire on Teacher Interaction in Higher Education at the end of this taught session. In some classes students will be asked to complete the Questionnaire on Teacher Interaction Ideal Version at the beginning of the class.

During the class/lecture observation of students’ behaviour will take place. This will be covert in nature; that is students will not be informed that they are being observed.

If you have any questions or concerns about students completing the questionnaire or about any aspect of this study or if you wish your consent to be withdrawn after data has been collected you may contact me on 01695 657031 or paula.keating@edgehill.ac.uk. This study has been approved by the Edge Hill University Institutional Research Ethics committee.

Regards

Paula Keating
Research student
Edge Hill University
St. Helens Road
Ormskirk
L39 4QP

I consent to the research described above being conducted in this class

Name (Lecturer) ..........................

Signature (Lecturer) ..........................

Date .............................................