An exploration of the concept and practice of active learning in higher education.

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Abstract

There has been much written about active learning in higher education over the last few decades however, there is a lack of a cohesive definition or any critique of this term. Active learning is often associated with learning and teaching which is progressive and involves student participation. As the demographic of students in higher education continues to change, learning and teaching needs to adapt, therefore it is important to explore what teachers and students mean when they use the term active learning. The main aim of this research project was to investigate active learning in the context of higher education. This research includes an exploration of whether there is a relationship between active learning and good teaching as well as investigating if the understanding and practice of active learning is influenced by teachers' and students' beliefs about the purpose of university education. In this research, active learning is considered predominantly from a UK perspective, and alongside this I also provide some small international examples of perspectives on active learning. Finally, drawing on the literature and findings of this project, this research offers two new conceptualisations of active learning in higher education.

One main research question guided this project: what is active learning in the context of higher education? There were two sub questions: is there a relationship between good teaching and active learning and how do students' and teachers' beliefs about the purpose of a university education influence the practice of active learning? Employing case study methodology, data for this research project was collected at the University of Glasgow, UK. A small amount of data was also collected using opportunistic sampling in three international settings: An-Najah National University, Nablus, occupied Palestinian territories; Hawler Medical University, Erbil, Kurdistan, Iraq; and University of Cape Coast, Ghana. In total there were 13 Interviews with teaching staff, 3 focus groups with students and 14 observations of teaching. Data was collected across a range of disciplines and included postgraduate, undergraduate and adult education.

The main findings in this research were: (i) active learning in higher education continues to be a messy, complex and an inconsistently defined term; (ii) active learning can be more than just physical activity, it can be a set of beliefs and attitudes towards learning itself; (iii) national culture and context are not

significantly influential in the practice and understanding of active learning, many themes in this research were trans-contextual; (iv) active learning can happen when teachers give students a framework from which they can build, shape and direct their own learning.

This research offers two new conceptualisations of active learning; the first relates to how teachers promote active learning, the second relates to how active learning is understood and practised by students. These new conceptualisations challenge previous research in active learning which has tended to be over-simplified and under-critiqued. The main recommendations of this research are: (i) that teachers and students must continue to have dialogue about active learning, what it means, what it looks like and its perceived benefits, (ii) that teachers should be aware that they can promote active learning in different ways, (iii) Teachers should adopt teaching strategies which help promote a deep approach to active learning and students should be willing to be reflective and take responsibility for their learning.

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Dedication

This thesis is dedicated to my Mum,

Irene Watters

‘A mother’s love is the fuel that enables a normal human being to do the impossible.’

- Marion C. Garretty

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Author's Declaration

I declare that, except where explicit reference is made to the contribution of others, that this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution.

Signature: *Natalie Watters*

Definitions/abbreviations

Definition / Abbreviation	Meaning
A*F*L	Assessment *for* learning
A*O*L	Assessment *of* learning
CBL	Case-based learning
EBL	Enquiry-based learning
EVS	Electronic Voting System
Learners	Learners and students are used interchangeably
Lecturers	Lecturers and teachers are used interchangeably
PBL	Problem-based learning
SCL	Student-centred learning
Students	Students and learners are used interchangeably
Teachers	Teachers and lecturers are used interchangeably
TCL	Teacher-centred learning
ZPD	Zone of proximal development

Chapter 1 – Introduction

1.1 Aims of this research

The aim of this research project is to investigate active learning in the context of higher education. The research includes an exploration of whether there is a relationship between active learning and good teaching as well as investigating if the understanding and practice of active learning is influenced by teachers' and students' beliefs about the purpose of university education. Active learning will be considered predominantly from a UK perspective but with a smaller international perspective included also. Finally, using the findings of this research project, I offer two new conceptualisations of active learning in higher education.

1.2 Research Rationale

This research was conducted because active learning is a term which is readily used in higher education but without there being a consistent or coherent definition or any critique. As the demographic of students has changed over past years to include not only domestic school leavers, but international students, adult returners and non-traditional learners, learning and teaching in higher education has constantly had to adapt and change. My interest in active learning stemmed from my time as a school teacher where I was involved in implementing active learning strategies in early years' education (ages 5-7 years). In my experience, active learning is a term which most primary practitioners would be familiar and comfortable with as it has been used for twenty or more years. The concept of active learning in higher education, however, appears to be under researched and it is a term that does not have an agreed definition; therefore this research aims to investigate what active learning means in higher education. Furthermore, as this research project evolved I began to realise that active learning appears to be mainly a Western phenomenon as any research which has been published is predominantly either based in the West or is from a Western perspective. In response to this, I carried out opportunistic data collection in three international settings as well as the UK in order to be able to add value and insight into how active learning is perceived and practised.

At the start of my research, my original research question asked if active learning produced more successful and engaged learners when compared to traditional didactic teaching methods. For the purpose of this research, 'didactic' means inclined to teach or lecture others by a process of transmission of information, as contrasted with dialectic or more collaborative methods of learning and teaching. I soon realised that this research question was far more complex than I first anticipated. I realised this question was trying to make causal links between active learning and learner outcomes, and yet there is significant disagreement about what active learning constitutes in the first place. It became apparent that I needed to examine the nature of active learning in higher education and explore what it actually means to teachers and students.

1.3 Previous research in this area

There has been much written about active learning in higher education over the last few decades (Adler, 1982; Berry, 2008; Bonwell and Eison, 1991; Chickering and Gamson, 1987; Denicolo et al., 1992; Ericksen, 1984; Exley, 2010; McKeachie, et. al., 1987; Michael and Modell, 2003; Prince, 2004 and Thomas, 1972). However, active learning can be traced back as far as early thinkers in education such as Confucius and Socrates. Currently, there appears to be little research conducted which interrogates the term active learning or which gives a critique. This research aims to fill this gap in the current research by interrogating and critiquing the literature on active learning and presenting data which was collected predominantly in the UK (Glasgow) and then in three international settings (occupied Palestinian territories, Iraq and Ghana). The research focuses on three areas: a) critically exploring the term active learning and discussing how useful the term is, b) investigating how active learning relates to good teaching, c) examining how teachers' and students' beliefs about the purpose of a university education influence the understanding and practice of active learning.

1.4 Where the empirical research was carried out

I gathered data from four locations:

i) The University of Glasgow UK (see Appendix 1 for photograph)

ii) An-Najah National University, Nablus, occupied Palestinian territories (see Appendix 2 for photograph)

iii) Hawler Medical University, Erbil, Iraq (see Appendix 3 for photograph)

iv) University of Cape Coast, Ghana (see Appendix 4 for photograph)

1.5 Methodology and Research questions

The frameworks for this research project are interpretivism and critical theory informed by a social constructionist epistemology. The chosen methodology for this project is case study. The University of Glasgow constitutes the case study and the three international settings (1) An-Najah National University, Nablus, occupied Palestinian territories, (2) Hawler Medical University, Erbil, Iraq and (3) Cape Coast University, Ghana, will provide an international perspective on active learning. The research questions guiding this project focused on active learning in higher education and aimed to investigate teachers' and students' opinions and understandings about active learning. I conducted interviews and focus groups with teachers and students in higher education and also conducted observations of a variety of taught classes. In all the interviews, focus groups and the observations the aim was to explore the different interpretations of active learning.

Main Research Question: What is active learning in the context of higher education?

- **Sub Question 1:** Is there a relationship between good teaching and active learning?

- **Sub Question 2:** How do students' and teachers' beliefs about the purpose of a university education influence the practice of active learning?

1.6 Thesis Structure

Chapter two begins by outlining some historical and present day defining theories which have influenced the development of learning and teaching. Chapter two continues by focussing specifically on active learning and identifies key characteristics specifically located with the active learning literature. There is then a general discussion about the current climate in higher education. Following on, there is an exploration of literature in the wider areas of teaching approaches, student learning and conceptions and beliefs about higher education. Chapter two concludes by presenting a synthesis of active learning characteristics from all the literature discussed in this chapter and then a critical reflection to identify where there are gaps and how this research intends to address these gaps.

Chapter three outlines, explains and justifies the research epistemology, theoretical frameworks, methodology and methods selected for this research. Also presented in chapter three are the research questions which guided the project, brief discussions about the settings for data collection and the stages which this research went through. The chapter concludes by identifying some challenges which arose during the project, reflecting on my role as a researcher and presenting the data analysis methods which were used.

Chapter four presents the first part of the findings and discussion section of this project. The findings and discussion are combined and used to answer the main research question and the two sub research questions. Chapter five is the second part of the findings and discussion section which explores the emergent themes which did not necessarily fit neatly into answering the main or the two sub research questions. As this research has been guided by a social constructivist epistemology, the value of emergent themes cannot be underestimated because they reflect some of the unexpected issues which emerged during data collection. Emergent themes add significant value to this project because they highlight participants' own thoughts about active learning which were not led by specific questions.

Chapter six discusses my own personal reflections on undertaking this research project including: presenting a conference workshop, unexpected twists and turns and what it felt like to be an observer.

Chapter seven presents a summary of the key findings as well as two new conceptualisations of active learning in higher education. Chapter seven also presents the conclusions and recommendations of this research project.

1.7 Limitations of this research

There were several limitations which constrained this research. Firstly, the interviews and observations conducted were limited in time (mostly one hour each), therefore they were only a snapshot and not indicative of the general higher education system in that particular context. Secondly, I was limited by time and teaching commitments in the international settings, therefore I was unable to collect a similar amount of data to that collected at the University of Glasgow. If more data could have been collected in the international settings, then these settings could have become case studies in their own right which may have enhanced this research project. However, as will be explained in the methodology chapter, this was not possible. The University of Glasgow is presented as a case study and the data from the three other settings is included to offer a contrast and international perspective.

1.8 Contribution to knowledge

Firstly, this project contributes to the already existing wide body of research which investigates learning and teaching in higher education by offering a critique of the literature on active learning. Secondly, this research presents original empirical findings from a UK setting as well as a smaller sample from three international settings, which offer new understandings and examples of active learning. Finally, this research presents a new conceptual model of active learning based on the combination of both the existing literature and the empirical data.

Chapter 2 – Review of the literature

In the broadest sense, the existing literature and research which investigates active learning gives the impression that it is a learner-centred, progressive and dynamic approach. However, active learning is a contested term and there appears to be no universal, accepted definition in the context of higher education; use of the term active learning often relies more on intuitive understanding than any one common or well-defined theory or practice. Prince (2004: p.223) states that 'active learning can be defined as any instructional method that engages students in the learning process. In short, active learning requires students to do meaningful learning activities and think about what they are doing'. Prince's definition is quite broad and all encompassing, however by being broad, it may be helpful in forming the basis of a working definition which will help guide and frame this research at the beginning.

This literature review is comprised of seven sections which explore and critique the theory and research in the area of active learning and the wider areas of student learning and approaches to teaching. Section one gives a brief history of the philosophy of learning and education. Section two explores the literature on active learning in higher education. Section three gives some context to the current climate within higher education in the UK. Section four presents a discussion on teaching approaches and methods. Section five reviews the literature about how students learn in higher education. Section six investigates conceptions and beliefs about learning and teaching in higher education. Section seven brings this chapter to a conclusion and synthesises the key characteristics of active learning derived from all the literature discussed so far.

2.1 A brief history of the philosophy of learning and education

When exploring historical influences on the development of active learning, I was surprised to find that links could be traced back to the philosophies of Socrates, Confucius and Rousseau. This section examines major figures in the history of education and considers the extent to which their thinking prefigures or resonates with the ideas of active learning today. I have arranged this section in chronological order to help chart the development of what we presently call

'active learning', and I have also attempted to bring together thematically those writers and theorists who share similar learning philosophies.

2.1.1 Thinkers from ancient times

In his lifetime, 551 - 479 BC, Confucius famously shaped ethical, social, political, moral and educational life in China and his work remains important today. Wang (2006) and Zhang (2008) suggest that five main Confucianist ideas influence thinking about education. These are that: education is highly valued and anyone can better themselves through education; high importance is placed on memorisation and recitation; learners should work collaboratively to improve relationships and harmony in society; there is an emphasis placed on hard work and slacking is not tolerated; students should respect teachers, often to the point where teachers are beyond reproach or students should not question them.

Amongst these principles, it is possible to identify several which have a bearing on modern educational practice in higher education. For example, learning by rote or memorisation is still an issue in modern education, including school and university education. Rote learning continues to be a hurdle which many teachers in higher education try to overcome so that they give students the opportunity to create their own understanding of knowledge. Working collaboratively with peers is one of the desired current 'Graduate Attributes' (University of Glasgow (a), n.d.). Showing the greatest respect for teachers by not questioning what or how they teach is an issue which is challenged particularly by teaching approaches such as critical pedagogy. Palmer (2001) claims that Confucianism places value on the instrumental or neoliberal (i.e. wealth of the country, state economy etc.) rather than the altruistic or self-fulfilling purposes of education. When looking at Confucius' writing in 'The Analects' there are certain aspects which resonate with modern understandings of learner-centred pedagogy. For example he said: 'I have brought up one corner and if he [the student] does not return with the other three, I will not repeat' (Huang, 1997: p.88). This suggests that Confucius wanted his students to take the initiative in their learning and explore and research so that they might create their own understandings of knowledge. Although it is helpful to explore the possible links from the historical past to modern day understandings of active learning, it is important not to oversimplify the concept by implying that

it is neither time nor culturally bound. The importance of context must be given special consideration because, like many other philosophies, the philosophy of learning is often rooted in the time and place it was conceived and with time it changes and adapts to better suit the demands of those who use it.

Socrates did not believe in the direct transfer of knowledge, instead he based his teaching on the idea that questions were the best method through which to encourage pupils to learn for themselves or 'see the truth for themselves' (Palmer, 2001: p.6). This aligns with modern understandings of student-centred pedagogy and active learning. Palmer argued that Socrates was a controversial figure and as a result of undermining the Athenian society, was executed by the ruling government who were afraid he was corrupting his young followers and pupils by encouraging them to question their belief in the norms of the day i.e. religion, morality . Socrates proclaimed that learning is equivalent to searching and he developed what we now know as the Socratic Method of questioning. Teachers use Socratic Questioning to probe student thinking and develop their intellectual reasoning by asking particular questions like 'why do you say that?', 'could you explain that further?' and 'what is the counter argument for that?' However, in relation to current teaching approaches, caution must be taken if Socratic Questioning is to be an accepted method of teaching because a teacher could just as easily control and manipulate their students using this method as they would with any other; therefore the Socratic Method may not be as learner-centred as it first appears.

Furthering the links between classical philosophers and modern understanding of active learning is Plato, pupil of Socrates and author of The Republic (380 BC). Plato was an idealist who established an academy in Athens which gave a base to the growing philosophical community. Plato's belief was that knowledge is innate within human beings and it is their duty to develop it (Palmer 2001). He also argued that education 'is not about amassing information or knowledge for its own sake or the acquisition of practical skills, it is "a re-orientation of the mind from twilight to true daylight".'(Republic 521) cited in Palmer (2001: p.12). It becomes clear that as far back as 380 BC, there were educators who believed that learning was not about repeating or regurgitating information. This resonates with current ideas about active learning, the purpose of learning and teaching in higher education, discussions of why people engage in learning, and

how learning and teaching develops to ensure student engagement (Escotet, 2012; McFarlane, 2004).Contradicting part of Confucius' philosophy, Aristotle believed that education should be of intrinsic value and that studying any vocational subjects was for the lower classes (Palmer, 2001). Aristotle is believed to have said that education frees you as a person, however, controversially; Aristotelian philosophy suggested that our minds are a blank slate or 'Tabula Rasa' when we are born. He believed that people predominantly learn through experiences and suggested that the role of the teacher is to provide structure for these experiences so that they can be interpreted (Palmer, 2001). Aristotelian philosophy bears some resemblance to the ideas surrounding active learning in that it suggests that the student learns by experience or discovery and it is the responsibility of the teacher not to simply provide learners with the right answers, but to help support and guide students so that they create their own understandings.

If active learning is understood to be about learners being responsible for their own intellectual development and teachers not simply transmitting information for students to memorise, then arguably active learning is not an entirely new concept. Exploring ancient philosophies of learning is helpful in articulating what we today understand active learning to be because it reveals its historical roots.

2.1.2 Post Renaissance thinkers

Much like Aristotle, Rousseau advocated that learning is achieved through experience and discovery (Palmer, 2001). Rousseau's most famous work 'Emile' or 'On Education' (1762) (translated by Bloom, 1979) looks at the relationship between the individual and society and how a person may retain their integrity when faced with a corrupt society. The novel is regarded as one of the first complete philosophies of education in Western culture and marked a significant turning point in the understanding of education (Byrne, 1996). In Emile, Rousseau paints a picture of education not as 'conformity to authority' or the 'memorising of influential texts' or 'religious truths', instead, education is portrayed as a process of 'personal self-development' and a search for the 'truth within' (Byrne, 1996: p. 191). Rousseau's contribution to educational philosophy is highly important because it signifies a point when the purpose of education was considered and formally written about from a critical standpoint.

Progressive pedagogies, such as critical pedagogy, active learning, student-centred learning etc., often encourage students to actively question why they are learning, what they hope to achieve and how they go about addressing issues of power. It could therefore be argued that Rousseau's work was a starting point for this type of teaching methodology.

2.1.3 Twentieth Century thinkers

John Dewey, American philosopher and psychologist, expressed in 'Experience and Education' (1938) that he believed traditional school education was too authoritarian and concerned with delivering knowledge, and not concerned enough with understanding students' actual experiences. His seminal work advocated that there should be 'participatory democracy in schools' and that 'schools should attend to the interests and experiences of children' (Palmer, 2011: p.180-181). Dewey quoted in Fairfield (2011: p.52) said 'students' experience should be the centre of gravity, not the student themselves'. Dewey was critical of free, student-driven education because he believed that students often do not know how to structure their learning experiences for maximum benefit, thus he stressed the vital importance that teachers play in providing intellectual development. Dewey's philosophy has significant bearing on today's higher educational ideals, especially in the area of progressive pedagogy such as active learning. There is still no real consensus on how far an educator should guide their students, how much they should hold back or how much autonomy and responsibility a student should have over the content and direction of their own learning.

The work of Swiss developmental psychologist Jean Piaget was mainly in the area of child maturation and development, however his comments on autonomy, learner responsibility and the purpose of education are particularly relevant in a discussion concerning active learning. Piaget's comprehensive theory of cognitive development was first understood to be a developmental stage theory, but, in fact deals with the nature of knowledge itself and how people come gradually to acquire, construct, and use it (Gruber and Voneche, 1995). Piaget said that 'autonomy is not anarchy such that learners do what they want, rather, learners should want to do what they do'. Furthermore, Piaget also said 'the aim of intellectual education is not to know how to repeat or conserve ready-made

truths. It is in learning to gain the truth by oneself at the risk of losing a lot of time and going through all the roundabout ways that are inherent in real activity' (Piaget cited in Bresler et al., 2001: p.41). Piaget seems to be warning learners and educators here that immersion in learning can and should be a messy, unpredictable and divergent process. This relates well to some understandings of active learning which indicate that students should be self-directed, responsible for their own learning and take critically approach to knowledge development (Berry, 2008; Bonwell and Eison, 1991; Denicolo et al., 1992; and Rogers and Freiberg, 1994).

In contrast to Piaget who believed that development preceded learning, Russian psychologist Lev Vygotsky believed that social learning preceded development. Vygotsky devoted much of his work to the development of the idea of social constructivism and argued that consciousness and cognition are the end products of socialisation and social behaviour (Vygotsky, 1978). For Vygotsky, culture gives the learner the cognitive tools needed for development and his theory of constructivism is based on the understanding that social interaction and culture play fundamental roles in the process of cognitive development. A constructivist teacher creates a context for learning in which students can become engaged in interesting activities that encourage and facilitate learning. The teacher does not simply stand by, however, and watch the learner explore and discover adhoc. Instead, the teacher may often guide students as they approach problems, may encourage them to work in groups to think about issues and questions, and support them with encouragement and advice as they tackle problems and challenges that are rooted in real life situations. Social constructivism also includes the notion that when someone is learning, there is usually a 'More Knowledgeable Other' present who may be a teacher, older adult or peer who has a better understanding or a higher ability level than the learner and who helps scaffold that student's learning. Following on from this, Vygotsky described the 'Zone of Proximal Development' (ZPD) as the space between a student's ability to perform a task with guidance and the student's ability to solve the problem independently. According to Vygotsky (1978), learning occurs in this zone. Progressive pedagogies such as active learning have deep roots in social constructivism. Social constructivism is often viewed as the antithesis of instructional models of teaching where a teacher or lecturer 'transmits'

information to students, instead, social constructivism provides communicative tools and strategies to help teachers develop learning methods such as, discovery learning and social interactive to develop peer collaboration (Powell and Kalina, 2009). In contrast to instructionalist approaches, Vygotsky's theory promotes learning contexts in which students play an active role in learning. As Adams (2007) suggests, the roles of the teacher and student are shifted, as a teacher should collaborate with his or her students in order to help facilitate the construction of meaning. Learning therefore becomes a reciprocal experience for the students and teacher.

Another key theory which may be helpful in defining active learning is Bloom's Taxonomy of Learning. Benjamin Bloom was an American educational psychologist who published a 'Taxonomy of Educational Objectives' in 1956 which began by outlining the first of what he outlined as three domains of learning: Cognitive, Affective, and Psychomotor - sometimes loosely described as knowing, feeling and doing (Bloom, 1956). Bloom's objective in classifying the three domains was to encourage teachers to consider all three areas so that education would be planned in a more holistic way. His most famous work is in the classification of the cognitive domain, often known as Bloom's Taxonomy of Learning. In the cognitive domain, Bloom outlined that there are many different kinds of knowledge and different ways of learning or acquiring that knowledge, from basic memorisation to higher order thinking (see Fig.1).

Figure 1: Bloom's Taxonomy of Learning (The Cognitive Domain), 1956

Bloom's taxonomy has been influential in the development of education both in school and higher education, especially in the areas of course design and the creation of intended learning outcomes and design of assessment methods. However, Tennant (1999: p.102) suggests that Bloom's matrix of domains and levels of knowledge are 'behavioural objectives' which 'fragment learning into narrowly conceived categories' and that learners' competence cannot easily be measured by these behavioural objectives because people express their competence in a 'variety of imaginative and unpredictable ways'. Despite these concerns from Tennant, Bloom's work resonates with progressive pedagogies such as active learning because his Taxonomy encourages educators to question what it is they want their students to learn and how this can be achieved i.e. is it skills to be developed or facts to be learned.

2.1.4 Twentieth Century thinkers: critical pedagogy and issues of power

Firstly known for his work in the field of psychology and then latterly in education, Carl Rogers is said to have revolutionised the perception of learner-centred pedagogy. Rogers began the treatment of his patients with what he called 'client-centred therapy' which was seen as the antithesis of Freudian or Behaviourist techniques which centred on the idea that only the therapist could

cure a patient (Bresler et al., 2001: p.51). His client-centred approach translated into the field of education where client-centred therapy became learner-centred teaching and by doing this Rogers de-centred the power relationship and this promoted a non-directive approach which ‘denies the authority of the expert’ (Bresler et al., 2001: p.51).

In a revision of his earlier work ‘Freedom to Learn’, Rogers specifically mentions active learning, saying that ‘In active learning environments, students are encouraged to become engaged through co-operative learning activities, peer teaching, learning centers, field trips, projects, and classroom discourse that requires multiple levels of thinking. Students become citizens of the learning environment, taking responsibility for each other and the facility they enter each day’ (Rogers and Freiberg, 1994: p.9). There have been criticisms of Rogers’ educational philosophy, firstly because he was not a teacher but a psychologist, secondly because his theory was very individualistic and overly simplistic. His idea that teachers could act as passive ‘mirrors’ was challenged by those who thought this diminished the role of teachers, taking away their role in promoting what is good and right (Bresler et al., 2001). Despite these criticisms of Rogers, his published work ‘Freedom to Learn’ has been highly influential in the area of learner-centred pedagogy and therefore his contribution cannot be ignored when investigating active learning.

Paulo Freire was often viewed as a radical, a revolutionist and a threat to the establishment which led to his exile from his native Brazil (Schugurensky, 2011). Freire is synonymous with the establishment of Popular Education in Latin America and his most famous publication, Pedagogy of the Oppressed, was first published in English in 1970. Popular Education (where popular is used to mean 'of the people', Kane, 2001) is renowned for its dynamic, active, participatory methodology. On the surface, a link could be made between Popular Education and active learning because of the use of activities and learner participation in the educational process, however to create such a link would be to misinterpret the true meaning and purpose of Popular Education. Freire’s educational philosophy, and the philosophy of Popular Education, was rooted in the belief in the need for political and social change and that all education is a political act. Taking this into consideration, it would be naïve to suggest that just because learners are participating in activities means that they are involved in Popular

Education, or in fact active learning because (as will be outlined later in this chapter) many of the definitions of active learning are based on the ideals of learner autonomy and the development of critical thinking skills. Freire is often referred to as the forefather of critical pedagogy which considers how education can provide individuals with the tools to better themselves and strengthen democracy, to create a more egalitarian and just society, and thus to deploy education in a process of progressive social change (Kellner, 2000). Freire's philosophy and critical approach to teaching began when he embarked on his work in adult literacy in Latin America and continued throughout his life and since then there have been many other educators who have been influenced by the work of Freire (e.g. Henry Giroux, bell hooks, Peter McLaren) especially in the areas of critical pedagogy, teacher-student dialogue and praxis. Freire advocated the need for praxis where a person or educator reflects on an experience, scrutinizes that experience in the light of existing and relative theory and takes subsequent action (Freire, 2000; Schugurensky, 2011). Brown (2011) uncovers several points where there is an intersection between Freirean and Socratic philosophy such as the need for interactive learning and problem-posing education. However, care should be taken in comparing Freire with Socrates or more specifically, Socratic Teaching methods, because although on the surface they may both be advocating that learning is led and directed by the student, in reality a Freirean approach goes much deeper into challenging and redressing issues of power and justice.

Following on from Freire, Giroux was one of the first philosophers to explicitly use the term critical pedagogy. Giroux, like Freire, believed that all education is a political act and that the two cannot be separated (Bresler et al., 2001). Giroux stated that schools (some literature draws explicit connections between critical pedagogy in schools and higher education) should be sites of cultural transformation not reproduction and that education is fundamentally about emancipation (Bresler et al., 2001). Giroux suggested that students must learn the ‘language of critique’ and the ‘language of possibility’ (Bresler et al., 2001: p.281) so that individuals may challenge neo-liberalism, class division and develop a progressive critical pedagogy. His work is often seen as progressive because he insists that the role of the teacher is to advance human empowerment and participative democracy (Giroux, 2011).

Another Freirean inspired educator is American writer and teacher bell hooks, who also argues for her version of progressive and holistic education, or as it has come to be known, engaged pedagogy. She takes a feminist approach to her practice and discusses the nurturing side of teaching which is often viewed as too delicate and too sensitive to have a place in the university classroom. hooks mentions in her book ‘Teaching to Transgress: Education as the practice of freedom’ that 'to teach in a manner that respects and cares for the souls of our students is essential if we are to provide the necessary conditions where learning can most deeply and intimately begin (hooks, 1994: p. 13). She highlights that even when teachers espouse progressive pedagogies, in reality they are often unwilling to take risks. Conversely however, and particularly pertinent to active learning, hooks goes on to suggest that students often feel uncomfortable when responsibility for learning is put upon them and that they are looking for their teacher to be a ‘captain’ and not another ‘crew member’ (hooks, 1994: p.144). In some instances, active learning is defined as teachers no longer occupying centre stage in the learning and teaching process and according to hooks, learners may not be comfortable with this shift in power in which the focus is put on them.

Foucault's work in addressing the issue of power in society and education suggests that within any society or group, there exists negotiated power and hierarchy and that it is not enough to simply say it is the powerful elite versus the disempowered working or lower classes. Foucault’s idea is that power is everywhere and is 'diffused and embodied in ideas, knowledge and regimes of truth’ (Foucault, 1991). For Foucault, power is what makes us what we are, operating on a quite different level from other theories; Foucault challenges the idea that power is wielded by people or groups by way of ‘episodic’ or ‘sovereign’ acts of domination or coercion, seeing it instead as dispersed and pervasive. ‘Power is everywhere’ and ‘comes from everywhere’ so in this sense is neither an agency nor a structure (Foucault, 1998: p. 63). Students and staff must be encouraged to look critically at issues of power if progressive pedagogies, such as active learning, are to fulfil their potential.

These critical thinkers add to the exploration and discussion of the term active learning in the context of higher education because they advocate for the de-centralisation of the teacher in the classroom and the need for the consideration

of the influence of power in the classroom. Learner-centred approaches to learning and teaching, such as active learning, can only operate on a surface level if the wider issues of power and hegemony in society are not redressed. This ‘surface level’ approach to teaching and learning may allude to activities which can be an enjoyable part of the learning and teaching process, but which ultimately do not challenge the thinking of the students or attempt to engage them on a deeper level. Of course, at times these types of activities may be justifiable; however, as will be discussed later in this chapter, engaging in activities which do not ultimately challenge a learner’s thinking is not the purpose of a university education.

2.2 What is active learning in higher education?

This section will explore the literature which specifically focuses on active learning and will include a helpful table (Table 1) which presents the main characteristics of active learning as proposed by the literature. There will also be discussion on the idea of 'passive learning' which is often described as the antithesis of active learning. This section will begin to unravel the many interpretations and definitions of active learning and offer a critique.

2.2.1 Active learning in higher education

Research into active learning includes claims that active learning was needed to combat didactic methods of teaching (Adler, 1982; Bonwell and Eison, 1991; Ericksen, 1984; Chickering and Gamson, 1987; McKeachie, et. al., 1987; Thomas, 1972). Much of this research challenged approaches to teaching which advocated retention of information and regurgitation of facts. Much of the aforementioned research into active learning implied it could be a panacea for pedagogical problems as if it were an uncontested and neutral term. This literature from the 70s, 80s and 90 plus some current research in the field, fails to look critically at the term active learning, and how it may mean different things to different people in different contexts.

There appears to be a variety of different ways in which active learning is presented in the literature. As stated previously in the introduction, Prince's (2004) explanation of active learning is useful as a working definition because it is broad and helps frame this extensive exploration of associated literature and research. To reiterate, Prince (2004: p.223) states that 'active learning can be defined as any instructional method that engages students in the learning process. In short, active learning requires students to do meaningful learning activities and think about what they are doing'. As an overarching definition, this is helpful, however it is necessary to explore other literature which presents specific characteristics of active learning so that this research project has different 'lenses' through which to view active learning and frame the findings. Presented below is a table which details the main characteristics of active learning which are present in the literature:

Table 1: Characteristics of active learning specifically from active learning literature

Characteristics of active learning	Reference
Student responsibility for learning	Berry (2008), Denicolo et al. (1992) and Rogers and Freiberg (1994)
Collaboration between students and students and being involved in co-operative learning	Rogers and Freiberg (1994)
Critical thinking	Berry (2008), Bonwell and Eison (1991), Denicolo et al. (1992) and Rogers and Freiberg (1994)
Learning and developing skills	Bonwell and Eison (1991) and Denicolo et al.(1992)
Engaging students in the learning process	Bonwell and Eison (1991), Prince (2004)
Students are engaged in activities (projects, role-plays, discussions etc.)	Berry (2008), Bonwell and Eison (1991), Chickering and Gamson (1987) and Prince (2004)

The above table offers a synthesis of some of the characteristics presented in the literature; however, it must be pointed out that it is not a definitive or an exhaustive list. Some authors offer further explanations, for example Michael and Modell (2003) argue that active learning involves building, testing and repairing one's mental model of what is being learned. Furthermore, Denicolo et al.(1992: p.3) define active learning as 'a search for personal and academic meaning', and also argue that 'it is more than assimilating information ... it is having a sound grasp of key concepts and being able to apply them in different contexts'.

Bonwell and Eison (1991) suggest that it is the process of learning which is most important and not the content. They argue that if transmitting information from teacher to student is all that matters, then the student may be missing out on developing vital skills necessary to academic inquiry. In contrast however, if learning is simply about undergoing a process then what learners may have at the end is a set of good experiences and transferable skills and graduate attributes with no real content knowledge. In response to what Bonwell and

Eison have said, it may be that a learning and teaching approach where an equal amount of time and effort is spent on developing a) the subject content and b) the appropriate learning activities, may enable the best learning opportunities.

There is a certain amount of power and control which the teacher must relinquish in order to achieve what Denicolo et al. (1992) and Berry (2008) call 'learner responsibility'. It may be necessary to take the discussion of active learning to a deeper level in order to address the issue of power. Discussing issues of power in learning may seem like quite a big leap from some of the aforementioned definitions of active learning which suggest active learning is simply about incorporating activities and discussions into learning. However, critical theorists in education (Freire, Giroux, hooks etc.), would argue that learning and teaching in any context will naturally replicate the power structures in society, therefore if pedagogy is to progress so that ownership and responsibility of the learning is to become more equally shared between teacher and student, then the balance of power must be redressed.

2.2.2 Passive Learning

Some of the characteristics of active learning (collaboration, co-operative learning, students being engaged in activities) imply that learners must be physically active for there to be any active learning occurring, subsequently active learning is often described as the opposite of passive learning (Haidet et al., 2004). Passive learning is often associated with teacher-centred learning (Kain, 2003) where students are spectators rather than active participants or 'citizens of the learning environment' (Rogers and Friedberg, 1994; p.9).

Marton and Säljö's (1976) work on the concept of deep and surface approaches to learning raises the issue of passive learning. Students who adopt a surface approach focus on remembering facts and learning by rote which may ultimately make them more passive learners. Haidet et al. (2004) suggest that passive learning is a negative concept which is associated with didactic lecturing and often denotes ideas of learner dependency and powerlessness. Interestingly, research carried out by Haidet et al. (2004) found that when one group of learners were taught using didactic lectures and another group taught in a participatory active way (group based problem solving tasks), their knowledge

and performance in a related exam was almost the same. However, what they did find was that the group taught in the ‘active session’ perceived the experience to be of less benefit and crucially, these learners also had lower perceptions of their ability to meet the learning objectives. These results show that although passive learning may have a bad reputation, often it is more comfortable because it is what learners are used to and what they expect. Also, the didactically taught group may have really enjoyed what they were learning and engaged with it without having to have discussions or activities.

Similar to Haidet et al. (2004), Struyven et al. (2010) conducted a study in which a cohort of student-teachers were studied; one half was taught by lecture method, the other by student-activating methods (self-discovery learning by means of authentic tasks). Struyven et al. (2010) found that the group who were engaged as ‘active learners’ did not necessarily want to continue this approach in the workplace once they qualified. Many of the student-teachers found that the student-activating methods were uncomfortable, leading many of them to experience a crisis in confidence. Many were upset by other ‘freeloading’ students who allowed other more dedicated students to do the group work. It could be argued that one of the purposes of learning is to give the students opportunity to transform their thinking; therefore the learning has to be challenging and even uncomfortable at certain points. Brookfield (1995) discusses the need for students to be challenged so that they can experience new ways of learning and he also suggests that it is the job of the university educator to encourage students to embrace new learning methodologies in order for them to have opportunities to develop. However, it is equally important for the educator to be able to empathise with learners so as not to push them too far outside their comfort zone and risk alienation.

The passive learning and active learning argument is more complex than many researchers and educators believe it to be. To present these two concepts at polar opposites of the learning spectrum is overly simplistic. Denicolo et al. (1992) and Mayer (2004) suggest, active learning may go beyond these physically active features (e.g. group work, discussion, collaborative projects) and veer into more complex and abstract areas such as learner autonomy, learner agency and the development of critical thinking skills.

Some previous definitions present active learning as a series of physical endeavours undertaken by both teacher and students e.g. discussions, projects, role-plays, pair-share activities (Berry, 2008; Bonwell and Eison, 1991; Chickering and Gamson, 1987; Prince, 2004). If active learning is simply about being involved in 'activities' then there is a danger that the integrity of the learning may be lost, meaning that the activity itself becomes the priority and not the content of the learning. Rather than being behaviourally active during learning, Mayer (2004) suggests learners should be cognitively active, and as Kane (2000: p.5) suggests, 'Passive countenance needn't reflect an inactive brain'.

Student participation in learning can be viewed as a step towards more inclusive and progressive education. Nowhere is this truer than in the philosophy of Popular Education founded by Brazillian Educator Paulo Freire in which learners are valued as equal partners in radical and emancipatory education. Arguably, the 'active versus passive learning' debate could benefit from some of Popular Education's philosophies because within Popular Education, participatory techniques and active learning cannot be solely defined by activities; active learning must be an attempt to increase the greater good for the learners (Kane, 2004). Furthermore, activities should never be gimmicks they must have serious, purposeful and educational aims and objectives (Kane 2004). What Kane (2004) is suggesting here is at odds with the idea of 'edutainment' (which will be discussed later) and the findings of Marsh and Ware (1982) who found that a teacher's performance could at times have a positive effect on learners even if what they were teaching was relatively meaningless.

From a Popular Education standpoint, learning activities are meaningless without underlying principles. Active learning needs to be more than just a set of teaching tools or methods; it has to be interlocked with a guiding set of principles and goals. However, relating back to the discussion of power in learning, Kane (2004) argues that participatory teaching techniques can be just as manipulative if not more so than traditional didactic teaching methods. Kane (2004) argues that educators can quite easily promote their own agenda during 'activities' and quite easily manipulate the learners, but do so it a more subtle way by getting the students on board and getting them to think they are in control.

In summary, active learning in higher education could be more easily explained by its characteristics and the principles it is based on rather than a definition of what it is or what it looks like. It seems that finding a coherent definition of active learning in higher education is challenging. It may be useful to present the two different understandings of active learning which seem to be emerging from the literature. The first is that there is a physical/instrumental understanding which is concerned with physical activities and physical demonstrations of learning. The second is that there is a cognitive understanding of active learning, meaning that it is what goes on inside the learner's mind that is of priority.

2.3 Context of higher education

It is necessary to give details of the political and societal context in which this research is conducted. In the past decade, higher education in the UK has undergone some significant changes in terms of the internationalisation of the curricula (Haigh, 2002; Jackson, 2003), cuts in government funding and subsequent tuition fee increases (England and Wales), a decrease in graduate employment and the changing demographics of the student population (Biggs and Tang, 2007; Collini, 2012). As a result of these changes, there has been a shift in the modus operandi of higher education institutions which means that amongst other changes, many now have adopted a business approach. Current discussions focus on how institutions and their staff have had to adapt their learning and teaching practices to meet these new demands (Biggs and Tang, 2007), moreover there has been increasing discussion around how these changes have impacted on how staff and students view the purpose of a university education.

2.3.1 Preparing staff to teach in higher education

In many universities in the UK, new teaching staff are required to complete formal professional development courses in the area of teaching and learning. Many staff members are experts in their respective fields; however they are not as experienced in the area of learning and teaching (Bamber et al., 2006). The professional development courses are often delivered by Academic Development Units or Learning and Teaching Centres and are often accredited, meaning the

staff member is awarded for example a Postgraduate Certificate in Academic Practice on completion as well as professional recognition from the UK Higher Education Academy. These professional development courses offer an opportunity to ensure staff learn more about active learning and student-centred teaching practice. In the current climate of mass higher education, it is important that teaching staff are given the opportunity to develop their knowledge of effective learning and teaching strategies. Developing an active or student-centred approach to teaching when faced with hundreds of students is particularly challenging. Many teachers are now faced with large cohorts of students who have varying demands and expectations therefore it is necessary that teachers have the right skills to meet these types of challenges.

Bamber et al. (2006) suggest that the multiple disciplinary 'cultures' that exist within universities means that it is difficult for lecturer development programmes to suit or meet the needs of all teaching staff. Bamber et al. (2006) reported that it was often difficult for academic developers to engage teaching staff from some disciplines because teaching staff were resistant to change their behaviours, beliefs and values in order to develop their practice. Some of this resistance may also be related to the widespread perception that research is considered more important than teaching within many research-intensive universities. Trowler and Cooper (2002) describe 'Teaching and Learning Regimes', which they argue exist as a set of rules, assumptions, practices and relationships related to teaching and learning that make up the culture of an academic department. Professional development courses must ensure that discussion of the benefits of student-centred learning and active learning take account of these regimes. Trowler and Cooper (2002) suggest that some teaching staff find it difficult, even resist, having to step outside their 'regimes' which causes difficulty for academic development staff whose job it is to try and encourage teaching staff to consider different teaching and learning approaches.

Clark et al. (2002) reported that a series of discipline specific workshops which built on knowledge gained from more generic academic development, provided new lecturers with a better understanding of the appropriate methods for teaching and learning in their subject area. Clark et al. (2002) are right to suggest that discipline specific academic development should build on and use interdisciplinary academic development workshops as a base. If this was not the

case then there is the risk that new lecturers would not be exposed to teaching approaches which are more prevalent in other disciplines, some of which may challenge and transform their own thinking and beliefs.

Fink (2003) argues that if teaching and learning is to meet the needs of students, then teachers must engage in effective course design. Fink presents a model of course design that aims to promote significant learning. Fink outlines that if students are to achieve learning goals and be successful in assessment, teaching staff must provide them with rich learning experiences. Fink (2003) defines active learning as a threefold approach comprising of: ideas and information; experiential learning; and reflective dialogue. Fink specifically argues that active learning is a way in which students can experience and achieve significant learning as well as have opportunities to reflect on what and how they learn. What this means is that staff have to consider how to design courses in ways that maximise both active learning and therefore significant learning.

Biggs and Tang (2007) draw on Biggs' original theory of constructive alignment (Biggs, 1999) to outline the importance of outcome based education. There are two parts to constructive alignment; first students construct meaning from what they learn, second, the curriculum is designed so that the learning activities and assessment tasks are aligned with the learning outcomes that are intended in the course (Biggs, 1999; Houghton, 2004).It is important that academic staff design courses and tailor teaching strategies so that there are opportunities for active learning. Teachers must create an environment which is encouraging and supportive and which provides a base for what Biggs and Tang (2007) call 'interconnected knowledge' where students actively engage with what they already know and restructure and connect it with new knowledge.

2.3.2 Students as customers

Olsseen and Peters (2005) argue that as a result of changes in technology and the world becoming more connected, globalisation and neoliberalism now dominate the Western political and economic agenda. Neoliberalism is built upon the following presuppositions: the self-interested individual; free market economics; commitment to laissez-faire (minimum involvement of the state); and a commitment to free trade (Olssen and Peters, 2005: p. 314). Burchell

(1996: p. 23-24) suggests that the difference between classical liberalism and neoliberalism is that neoliberalism actually invites state intervention as long as it is providing the individual with the appropriate 'conditions and laws' which are necessary for 'entrepreneurial and competitive conduct'. As a result of globalisation, there is now pressure on higher education institutions to provide opportunities for graduates to develop in ways that enable them to contribute to the 'knowledge economy' where there is greater reliance on intellectual capabilities rather than physical inputs or natural resources (Powell and Snellman, 2004). The knowledge economy is redefining the way society operates so that know-how and expertise are as critical as other economic resources.

In the light of globalisation and the predominance of neoliberal economics, it is little wonder that there has been a fundamental shift in the way universities define themselves. In reality this means all higher education institutions take a corporate approach to their business with importance placed on targets and performativity. Collini (2012) writes explicitly about the dangers of academia taking a business approach to its activities, warning that universities are putting their integrity on the line by trying to act like corporations attempting to measure impact and productivity. Similarly, Lyotard (cited in Bresler et al., 2001) argues against performativity where education is determined by requirements of the political or economic system. He argued that if performativity is embraced then there is no intrinsic value in learning as it has become a commodity. It may be naïve to suggest that in the current political and financial climate, universities and their staff have an option not to adopt a business approach to their activities. However, it is important to note that although the business model is the dominant force currently, it has not always been like this; in the future another less corporate model may emerge as many staff and students resist the degradation of higher educational ideals.

Yorke and Longden (2008) suggest that with rising tuition fees in most of the UK, many students will expect more from teaching staff. This was compounded by the Browne Report (Browne et al., 2010) which recommended the uncapping of tuition fees in UK universities. In Yorke and Longden's (2008) report, students voiced their concerns that lecturers simply read out notes in a lecture and subsequently were delivering a poor learning experience. Students in the report argued that this was not good value for money and that the minimum input from

teachers was accepted by the majority of learners. However, this view suggests the need to educate students and staff that good learning and therefore value for money does not necessarily equate with the amount of lecture ‘delivery’. Many authors discuss the dangers of viewing students as customers (McFarlane, 2004; Naidoo and Jamieson, 2005; Poon, 2006) with Naidoo and Jamieson (2005) highlighting that the relationship between student and teacher can be a very complex one which could become corroded by the confusion between a teacher acting as a teacher or teacher acting as a ‘service provider’.

Viewing education as a commodity has a particular bearing on the discussion of active learning because, as suggested by Naidoo and Jamieson (2005), customers are generally external to the organisation that they are buying from, and therefore if students adopt a customer identity they would perceive themselves to be passive consumers and not feel compelled to engage with, or take responsibility for, their learning which is one of the characteristics of active learning set out by Berry (2008), Denicolo et al. (1992) and Rogers and Freiberg (1994). Ultimately students could view learning as a purchasable product with the assumption of a guarantee, and not as a reflexive process which they themselves help to construct.

2.3.3 Research and Teaching

Brew (2003) discusses the need for teachers in higher education to be practising researchers in order for their teaching to be current and relevant to the needs of an ever changing world and student population. Many institutions are ranked according to their research output, for instance the Russell Group organisation which ranks the twenty four most successful research intensive universities in the UK (Russell Group, 2014). These kinds of league tables have significant bearing on the success and income of universities in the UK so consequently, universities are keen to retain their place in the hierarchy and huge demand is put upon teaching staff to deliver and output research. Research attracts investment and respectability and many staff are under pressure to perform against research targets. Teaching staff may not have the time or motivation to invest in improving teaching within their subject, which in turn would have an impact on the practice and advancement of active learning.

McFarlane (2004) expresses the view that dividing time between teaching and research will force educators to question their own personal self-identity. Furthermore, in order to secure their jobs, many academics are now supposed to become 'educational entrepreneurs' bringing in lucrative research grants. If this becomes the main priority of the academic, they may not have the time to change or develop their curriculum. Conversely, Healey (2005) discusses the positive impact of research on students and student learning. Healey proposes a research-teaching nexus which suggests research-based and research-informed teaching are much more beneficial to student learning because a) the curriculum is designed around inquiry-based activities rather than on acquisition of subject content, and b) the experiences of staff in processes of inquiry are highly integrated into the student learning activities. Healey argues that research-informed teaching means that the division of roles between teacher and student is minimised which is pertinent to the discussion of power and its relationship to active learning.

Research-informed teaching can potentially impact directly on active learning because the research operates as a distinct and separate source of power from both teacher and learner. In this way it can have the effect of minimising the division of roles between teacher and learner and even go some way to putting them on an equal footing. It could provide an empowering 'third space' where teacher and learner can work together, removing the dependency of the latter on the former.

2.3.4 Development of Graduate Attributes

Stefani (2009) suggests that in the competitive workplace, graduates need to arrive prepared by having developed transferable skills such as critical and creative thinking, communication, leadership and inter-cultural competence and these must be fostered in higher education. Furthermore, Stefani (2009) argues that students need to experience authentic learning tasks where the outcomes are not already known and which allow them to construct new knowledge. Due to the emergence of globalisation (Olssen and Peters, 2005) and the need for graduates to contribute to the knowledge economy (Powell and Snellman, 2004), the development of transferable skills related to collaboration, team

work, problem-solving, cooperation, negotiation and sensitivity are particularly vital in current work contexts.

In response to globalisation and the emergence of the knowledge economy, universities in the UK and other countries such as Australia, have placed much emphasis on the relevance of graduate outcomes to employability (Barrie, 2004). Universities in the UK have developed a set of Graduate Attributes which they are attempting to embed into their curricula (Barrie, 2004). Bowden et al. (2000) propose that Graduate Attributes are the qualities, skills and understandings a university agrees its students should develop. Bowden et al. (2000) suggest that these attributes go beyond subject expertise and focus more on the qualities that prepare students for an uncertain future. Barrie (2004) suggests that developing Graduate Attributes allows students to apply not only their subject knowledge, but also their skills and abilities in a range of contexts. 'Graduate Attributes are the academic abilities, personal qualities and transferable skills which all students will have the opportunity to develop as part of their university experience' (University of Glasgow (a), n.d.). In the pursuit of these attributes, students must go beyond just learning to write a good assignment or pass exams, they must be given the chance to develop skills which will enable them to be successful in their professional lives. At the University of Glasgow, graduates are expected to be: Subject Specialists, Investigative, Independent and Critical Thinkers, Resourceful and Responsible, Effective Communicators, Confident, Adaptable, Experienced Collaborators, Ethically and Socially Aware and Reflective Learners (University of Glasgow (a), n.d.).

The emergence of Graduate Attributes at the beginning of the 21st century led some academics to voice their concern and criticism. Holmes (2000) suggested that there was an apathy and even resistance on the part of some colleagues to generic attributes initiatives, while Fallows and Steven (2000) argued that the integration of Graduate Attributes into learning and teaching was too vague and varied to be implemented at an institutional level. Bennett et al. (1999: p.90) claimed that teachers are sceptical about Graduate Attributes because 'the skills demanded lack clarity, consistency and a recognisable theoretical base'.

Graduate Attributes are essentially about preparing students for the workplace which is arguably a narrow and conservative view about the purpose of learning

at university. Furthermore, if learning and teaching is designed around the promotion of Graduate Attributes, students may be more likely to view their studies as ‘training’ rather than education. Graduate Attributes provide an interesting lens with which to view active learning because if students are to develop these attributes, then the learning and teaching experiences would need to be specifically structured so that they allow sufficient opportunities for them to be developed. So the question may be asked, can a student develop Graduate Attributes in a lecture? The answer could be yes depending on which attribute is being discussed, however there are some attributes (e.g. experienced collaborators) which rely on peer or teacher and student interaction. Some approaches to active learning do promote collaboration, therefore it may be key in pursing the development of some Graduate Attributes.

2.4 Teaching approaches and methods

In order to research active learning, it is important to establish which teaching approaches and methods are currently being used in learning and teaching in higher education. This section discusses some of the well-established approaches and methods of teaching such as lectures, seminars and labs and some of the more progressive teaching approaches and methods such as student-centred learning and problem-based learning. By looking at approaches and methods which are already part of the learning and teaching landscape, it may be possible to better locate and understand active learning.

2.4.1 Lectures

There is a variation of teaching methods used in higher education, some of these methods stem from long traditions in teaching in higher education such as lectures, tutorials, and laboratory work. Lectures are a major feature of the learning and teaching landscape at university and have remained a dominant method of teaching for centuries (Bligh, 2000; Butler, 1992; Collier, 1985; Hodgson, 2005; Lammers and Murphy, 2002; Shore et al.,1990). Setting up his research on lectures, Bligh (2000) states that there are four main objectives in learning: acquisition of knowledge, promotion of thought, changes in attitudes and enhanced behavioural skills. Bligh argues that lectures are particularly good

at achieving the first, but not so good at promoting or achieving the latter three. Furthermore, Gibbs and Jenkins (1992) suggest that learning in higher education is not about recall and description, (similar to Bligh's first objective), but is about understanding, applying and evaluating ideas (similar to Bligh's second, third and fourth objectives).

Bligh's (2000) seminal work gives insight into the different interpretations of the use of lectures in higher education. Firstly, there is the view that lectures are an efficient and important way of communicating ideas and information to students. Indeed, Brookfield (1995) suggests that lectures are vital for learners as they set the context and give students time to assimilate new and often complex information. Secondly, another view is that lectures are outdated, they stifle creativity and hinder the learning process. Bligh (2000) argues that lectures can often feel like 'sermons' and that they are not the most effective way of eliciting student contribution because they represent a conception of education in which teachers give knowledge to the students who do not have anything worth contributing. However, it could be argued that if teachers are faced with teaching hundreds of students at one time, lectures do provide a solution to teaching 'en masse'.

In achieving any learning goal in a lecture environment, Bligh (2000) suggests that the effect of physiological issues (such as students' attention span) and psychological issues (such as students' motivation) must be considered. He suggests that any objectives in lecturing can only be achieved subject to the physiological and psychological limitations of the students. With most lectures lasting anywhere between one and two hours, the attention span of students has been the focus of much research, with most studies suggesting the average attention span of a student is between ten to twenty five minutes (Bligh, 2000; Gibbs and Jenkins, 1992; Johnstone and Percival, 1976).

In order to address the issue of attention span of students in lecture style teaching, there have been suggestions that there should be ten minute 'lecturettes' or mini lectures interspersed with group work and discussion (Gibbs and Jenkins, 1992). Exley (2010) discusses the need for lectures to change and incorporate student participation and suggests that with the age of modern technology, simple oral traditional lectures are outdated as podcasts /

narrations can easily replace these. Exley (2010) also suggests that lectures need to incorporate activities such as discussion groups, quizzes and the use of Electronic Voting System (EVS) to elicit student engagement. Similarly, Bligh's (2000) research shows that after a short break filled by a buzz group or group discussion, student attention will recover somewhat. In the light of these suggestions it becomes apparent that the definition of a lecture may be changing; is a lecture still a lecture if it incorporates activities?

The question being asked here is important because it challenges the 'label' of lecture and the question also suggests that this label may be less useful than originally thought. Lectures are often spoken of with disdain, but it is misguided to regard all lectures in this way; some lectures have the potential to be highly engaging and academically stimulating experiences. The number of students present in a lecture is also highly important factor because if a lecture has fewer than twenty students in it and the teacher decides to include activities, then does this mean it has transformed into a seminar or tutorial? Similarly, if a lecture has hundreds of students present but the teacher still incorporates activities, does it remain a lecture? The size of the class may determine what kind of activities are possible and also may determine what kind of relationship there is between the teacher and students. The term 'lecture' is often associated with a didactic teaching style, however, in many instances what is happening is not a 'lecture' at all, and instead it may be an interactive and participatory teaching session.

It is difficult to label any teaching session a 'lecture' or a 'seminar' or a 'tutorial' unless you know for sure what goes on behind closed doors; often teachers have different ways of interpreting what they do and a seminar has the potential to be just as didactic as a lecture. There has been much research conducted on how to make teaching, especially lectures, 'better' (Bligh, 2000; Exley, 2010; Gibbs and Jenkins, 1992; Johnstone and Percival, 1976 and Revel and Wainwright, 2009). A study carried out by Revel and Wainwright on what makes a lecture 'unmissable' states that attendance rates in lectures are significantly enhanced by three key factors: i) a high degree of participation and interactivity, ii) a clear structure which enables integrative links to be more easily made, and iii) a passionate, enthusiastic lecturer, who can bring a subject to life for students (Revel and Wainwright, 2009: p.11).

Penner (1984) and Gibbs and Jenkins (1992) argue that the modification of traditional lectures is one way to incorporate active learning into the classroom. Research conducted by Cavanagh (2011) looks at the impact of 'lectorials' in a pre-service maths teacher course. Lectorials (similar to Gibbs and Jenkins' (1992) 'lecturettes') are a blend of traditional lecture and co-operative tasks which were designed to engage students actively in their learning and provide sufficient time for them to process ideas (Cavanagh, 2011). This study found that the incorporation of collaborative tasks improves student understanding, focus and attentiveness. Cavanagh aligns these lectorials with a constructivist approach to learning where students are encouraged to relate new ideas to previous knowledge and take part in authentic tasks which are reflective of the real world.

In answer to the earlier question 'are lectures still lectures if they incorporate activities?' Meltzer and Manivannan (2002) suggest that yes, they are still lectures. By challenging the conception that a lecture must be a didactic event, Meltzer and Manivannan (2002) maintain that lectures can and should involve student participation and some form of activity. However, Bligh (2000: p. 278) suggest that caution must be taken if this is to happen because 'students expect lecturers to lecture and any sudden attempt to reverse the roles…. [may] require some psychological adjustment'. If there is a shift from the conventional and traditional lecture format where the students listen and the lecturer talks, to a more participatory model of lecturing where students are required to discuss and involve themselves in activities, then understandably there may be the need for a period of adjustment. The questions would also need to be asked; do students and teachers want this change, and furthermore, are they prepared to make these kinds of changes?

Although not originally formed in the context of higher education, Freire's description of 'banking' education (Freire, 2000) is relevant when investigating the lecture method of teaching. 'Banking' education is a term used by Freire to critique traditional education methods which treat students as if they are empty vessels into which teachers deposit knowledge. Freire's concern was the lack of critical thinking, responsibility and ownership of learning that students have in a lecture or other 'one way' communication style of learning environment. Banking education determined that the teacher was the subject or the 'active'

knowing person and the students were passive objects and their pre-existing knowledge was ignored. This sentiment is echoed by Kugel (1993: p.322) who argued that ‘minds are muscles not pails to be filled’. Banking style education reinforced oppressive structures in society. As an alternative to banking education, Freire believed in problem posing education where students are encouraged to think and tackle problems and their prior knowledge is capitalised upon. Freire advocated that learning and teaching should be a dialogue of knowledges where both student and teacher share responsibility, although as Freire alluded to himself, sharing of responsibility would never be completely equal as the teacher would always yield more power.

It would be misguided to think that all lectures operate on a transmission model of education where the teacher talks and the students are passive and that in the exploration of active learning, lectures might as well be written off. If lecturers are to avoid the ‘banking’ trap, then there must be communication and dialogue between student and teacher. Much is done now in higher education to incorporate communication between the teacher and the students in lectures whether with the incorporation of technology such as through the use of EVS and Twitter (Draper and Brown, 2004; Kassens–Noor, 2012) or with breaks for discussion and quizzes (Huxham, 2005).

Bonwell and Eison (1991) suggest that lecture style teaching can still be a useful method for promoting active learning; however, lectures should incorporate various strategies to involve learners more such as think-pair-share activities (where a student is encouraged to partner up with another student and share ideas) and small group discussions. However, when lecturers try to interact with their ‘audience’ it may upset the balance of things because the expectations of many students who come to a traditional lecture is that they are there to listen and not to interact. These expectations are usually formed by preconceived notions of what it is like to learn at university and what are deemed ‘normal’ or ‘traditional’ learning and teaching methods. In most situations the lecture theatre is an amphitheatre style room which can create a ‘them and us’ situation in which the invisible boundary is not crossed by either teacher or student. If teachers were to interact with the learners in the lecture theatre it could result in either appreciative responses from the students or uncomfortable silence. It depends of course upon whether the lecturer’s style is consistent i.e.

do they always do this and are the students are used to it and also if the questioning or activities are appropriate and accessible for the students. To some extent students' and teachers' willingness to change what they are used to depends on their previous experiences of lectures and also their own expectations.

Gibbs and Jenkins (1992) suggest that teachers may actually enjoy the sense of theatre performance which accompanies teaching in a teacher-centred, didactic way. Some styles of lecturing are possibly more akin to public speaking, however, Marsh and Ware(1982) argue that being entertained by an engaging speaker makes learning more enjoyable and therefore, possibly more effective. This may be a suitable point to look at the relatively new theory of 'edutainment' which is the hybrid of the word education and entertainment, the purpose of which Okan (2003: p.255) states is to 'attract and hold the attention of the learners by engaging their emotions'. Buckingham and Scanlon (2000) suggest that edutainment involves an interactive pedagogy which is based on the premise that learning is inevitably fun. Edutainment is a term which can relate to the inclusion of technology in the classroom, but in a broader sense relates to the performance given by the teacher or the inclusion of entertaining learning activities. Revell and Wainwright's (2009: p.218) study of 'what makes lectures unmissable' revealed that some lecturers felt that as well as being 'facilitators', part of their role was to be 'entertainers' or 'performers' and that to a certain degree lecturers have to put on a performance. Their study also found that students like to be entertained, and this can encourage them to keep coming to lectures. This may be true in some cases; however it would be dangerous if the entertainment factor became more important than the teaching.

A study conducted by Marsh and Ware (1982), also known as the 'Dr Fox experiment', suggested that some students responded positively to entertaining lecturers, even when, unknown to the students, the lecturer had been substituted with an actor with a script who had no expertise or academic credibility. Setzer and Monke (2001) add to this argument by suggesting 'sugar coating' of education may lead to students thinking that learning is something bitter which has to have an artificial sweetener added to it in order to be palatable. Conversely, Ramsden (1992: p.90) states 'If we cannot help students to enjoy learning…we have not understood anything about teaching at all'. The

use of technology is often incorporated to make learning more fun and enjoyable, however Okan (2003) argues that learning may be at risk or even compromised when the focus of the lesson is the interaction with technology and not the actual process of learning. It is difficult to say whether enjoyment or having fun is vital for effective learning or vital for effective teaching but the integrity of the learning may come into question when the main focus becomes making the class entertaining.

2.4.1.1 Incorporating technology into lectures

In recent years the use of technology has become an integral part of learning and teaching in higher education (Jones and O'Shea, 2004; Laurillard, 2002; Turney et al., 2009). The use of technology can vary from Virtual Learning Environments (VLE) where lecture material and course timetables are uploaded online for students to access, to technology which is used as part of learning activities e.g. Electronic Voting Systems (EVS), Twitter, Facebook. In some instances, technology is being incorporated into lectures to enhance quality and to make students more active, therefore it is important to evaluate whether or not the technologies and media being used are appropriate, balanced and meet the needs of the learners (Turney et al., 2009). Furthermore, and for the purpose of this research, it is important to consider if the technology being incorporated is contributing to the development of active learning.

To enhance student engagement and to combat the lack of interaction in lectures, some teachers are incorporating Electronic Voting Systems (EVS), (also known as Clickers and Personal Response Systems), into their teaching methods (Beekes, 2006; Draper and Brown, 2004; Kennedy and Cutts, 2005; Keough, 2012). EVS involves students using handsets to register their anonymous votes and opinions on questions posed by the lecturer. Shaffer and Collura (2009) conducted a study on the use of EVS in lectures and found that their students rated the lecture more interactive, interesting, and entertaining. Collura (2009) also found that, compared to another group of students who did not use EVS, students who did use it performed significantly better on exam questions. Similarly, Draper and Brown (2004: p.87) conducted a study on the implementation of EVS at the University of Glasgow in which they concluded that EVS was of 'net benefit' to students if the focus remained on pedagogy and not

technology. Draper and Brown (2004) also argued that the use of EVS in lectures promoted interaction amongst the students and re-energised the teaching approach of some teachers in that they were able to adapt their lesson to suit the needs of that particular group of student rather than sticking to a fixed script.

In a similar study, Ford et al. (2012) explored the incorporation of classroom capture technology as a supplementary resource in a traditional lecture-based course. Classroom capture systems are systems that capture audio and video footage of a lecture and then make it available online for students to revisit (similar to modern TV 'On Demand' services where individuals can watch programmes as and when they like). Ford et al. (2012) used four classes in their research, two were exposed to classroom capture technology and the other two were not. The results suggest that exposure to classroom capture technology is associated with improved study strategies and positive student perceptions of a course. However, this investigation revealed no association between exposure to classroom capture technology and course grade (Ford et al., 2012).

The literature suggests that incorporating technology seems to be a useful way of engaging students more in their learning in lectures. In terms of active learning, technology such as EVS and web based media such as Twitter may appear to make students more active simply because they physically doing something. Although helpful, this example of active learning seems to be confined by such narrow parameters that it may be too limited a way in which to define or accurately reflect the term.

2.4.1.2 Blended Learning and the 'flipped' classroom

Blended learning, which brings together a mixture of e-learning and face to face teaching, has become more popular in recent years (Cockbain et al., 2009; Garrison and Vaughan, 2008; Ginns and Ellis, 2007; Moore and Gilmartin, 2010 and Oliver and Trigwell, 2005). Online resources such as pre-recorded lectures with narrated Power Points and other e-learning activities such as discussion forums, encourage students to engage more with the subject and be more prepared to participate when they are in face to face sessions (Cockbain et al., 2009). Moore and Gilmartin (2010) redesigned their undergraduate geography

course (with the input of experienced students in their department) so that a blended approach was taken to learning and teaching. Moore and Gilmartin retained some of their lectures but altered them to incorporate more interaction with and between students.

The Educause Learning Initiative (2012) and Prunuske et al. (2012) also discuss the notion of student pre-learning through recorded online lectures before actually attending face to face teaching sessions: Educause call this the 'flipped' classroom. In a flipped classroom, activities are repurposed so that class time resembles more of a workshop where students can explore the ideas which were communicated by the lecturer in their video/podcast lecture. The purpose of this approach is to enable students to learn at their own pace by giving them the opportunity to pause and revisit the lecture content. It also encourages students to be better prepared for the face to face teaching/workshop sessions and to work collaboratively. Prunuske et al. (2012) reported that making lectures available online carved out a new role for the classroom where students and teaching staff could interact more. The work that students undertake online frees up time in the face to face interactions for more active forms of learning. Prunuske et al. (2012) noted that the online lectures and subsequent face to face interactive teaching sessions had had a positive impact on the biology student participants of their study.

Blended learning and flipped classrooms offer many significant advantages to students and to teachers; however, there are difficulties in employing such approaches. For example, recording lectures takes time and preparation, student may miss the traditional lecture format and be reluctant to fully participate in the face to face sessions and there may be internet access issues for some students. Despite these possible challenges, blended learning and flipped classrooms have a lot to offer the development of teaching and learning. Blended learning and the flipped classroom may be attractive to academic staff because they develop the teaching approach so that it is more active and participatory without having to completely abolish the lecture.

2.4.2 Seminars, tutorials and laboratories

Seminars and tutorials are widely used in higher education and are usually comprised of a small number of students and one teacher or tutor who is there to guide the session and provide stimulus. Seminars are linked to an assumption of social construction of knowledge (Burnapp, 2012), and as opposed to didactic lectures, seminars and tutorials (in theory) shift the focus from the teacher to the student. Students are expected to prepare and participate in seminars and tutorials and are sometimes graded on their performance in these settings. Montgomery (2008) discusses the physicality of the seminar room and raises an interesting point by suggesting that seminars are not merely rooms in which learning takes place; they are contingent and the learning dynamic in a seminar is influenced by many factors including the physical space and set-up of the room, the subject being discussed and the learners and the teacher.

In adopting activities based on active learning, seminars can offer an excellent space in which to achieve this and to enhance the students' learning process - moving towards a deeper learning where the student transforms information rather than simply regurgitating it (Oldfield, 2008). The quality of what goes on in seminars and tutorials can vary depending on who is leading the session (i.e. experienced/inexperienced tutor) and how prepared, interested and comfortable the students feel in the environment. If students are given the opportunity to work in groups, develop presentations or lead the sessions then their learning may be more active because they may be engaging on a deeper level. Their learning experience may also be of a higher quality because they have to successfully communicate ideas to their peers which often means they have to really understand the concepts they are learning.

Similar to seminars and tutorials, laboratories (or labs) often involve a much smaller ratio of students to teacher than lecture methods of teaching. Labs are an integral part of science, engineering, psychology, computer science degree programmes (Thornton and Sokoloff, 1998), however there are also language labs featured in the study of modern and ancient languages where audio-visual stimuli are used as an aid to learning and teaching. Labs offer students the opportunity to carry out practical experiments and activities related to the subject they are studying. Often students are introduced to new theories and

concepts in a lecture and the labs provide the students with time and space to consolidate their learning, have contact with teaching staff and carry out practical applications of these new theories or concepts (Prince, 2004). The kind of activities which go on in labs may correlate with definitions of active learning which are based on the understanding that students need to be physically active for them to be actively learning.

Seminars, tutorials and labs may provide contexts in which active learning can be enacted because they are all ways in which students can develop skills, demonstrate their knowledge and work collaboratively. The smaller ratio of students to teacher in seminars, tutorials and labs may provide teaching staff and students with an opportunity to develop working relationships. As methods of teaching, seminars, tutorials and labs can allow invisible barriers, such as those created by an amphitheatre style lecture hall, to be broken down and interaction between teaching staff and students to take place.

2.4.3 Student-centred learning (SCL)

As an approach to learning and teaching, student-centred learning (SCL) is a term which is becoming familiar in higher education (Kain, 2003; O'Neill and McMahon, 2005; Richardson, 2005). SCL, much like the term active learning, lacks any one clear definition for its use in higher education. Corrazo (2011) described student-centred learning as 'an active form of surrender' because, due to his experiences as a tutor, he said he felt that he had to surrender the traditionally established pedagogies of his subject (graphic design) and give control over to the students. Armstrong (2012) claims that in didactic teaching, teachers direct the learning process and students assume a receptive role in their education and that in this type of situation learner responsibility is ignored or suppressed. With the advent of progressive education, educators have often tried to replace didactic teaching approaches with 'hands-on' activities and group work, in which a learner determines on their own what they want to do in class (Armstrong, 2012). Key to progressive education is the premise that students actively construct their own learning. Theorists like Dewey, Piaget, and Vygotsky, whose collective work focused on how students learn, are primarily responsible for the move towards student-centred learning. Carl Rogers' ideas about the formation of the individual in client centred therapy and later learner

centred pedagogy, also contributed to developing the idea of student-centred learning.

Student-centred learning often means inverting teacher-centred understanding of the learning process and instead putting students at the centre of the learning process. SCL is often juxtaposed with teacher-centred learning (TCL) in which the learning revolves around the performance, needs and designs of the teacher (Kain, 2003: O'Neill and McMahon, 2005). O'Neill and McMahon (2005) suggest that SCL is a paradigm shift in learning and teaching where power moves from teacher to student. Blackie et al.'s (2010) definition of SCL implies that it is not just a different style of teaching, as it involves a shift for the teacher from measuring individual success by how much of the syllabus is successfully covered, to measuring success by how much the students learn and with what depth of understanding. This requires the teacher to be focused upon the learning of the students, rather than on the transfer of information and to be concerned about the actual process of learning. However, if the focus is solely on the process of learning and not on the transfer of information, students may become great at the process but have little knowledge of the content of the subject they are studying. Prosser and Trigwell (1999) argue that it is important to strike a balance between content and process. They suggest that teachers who adopt an SCL approach to their teaching will encourage students to concentrate on meaning and understanding and not on empty reproduction of knowledge. Furthermore, Kugel (1993) and Reinsmith (1992) suggest that teachers are more likely to adopt SCL as they become more experienced and mature as professionals.

On the surface, SCL may appear a relatively straightforward approach in which the teacher provides activities and the students are active. O'Neill and McMahon (2005) state that some practitioners think that SCL is about students being given some element of choice in their education, whereas other practitioners see SCL as being about the student physically and cognitively doing more than the lecturer. O'Neill and McMahon (2005) also offer a much broader definition of SCL which includes both of these ideas but, in addition, describes the shift in the power relationship between the student and the teacher.

Many authors describing SCL use the word ‘active’ when trying to reach a definition. Gibbs (1995) and Lea et al. (2003) argue that SCL is a reflexive approach which is reliant on active rather than passive learning. They also suggest that SCL is about: deep learning and understanding; responsibility and accountability on the part of the student; autonomy for the learner; interdependence between learner and teacher; and mutual respect. Brandes and Ginnis (1986) argue that SCL: a) takes into consideration students’ experience outside the course and focuses on process as well as content, b) allows key decisions about learning to be made through negotiation between teacher and student, and c) allows the student to see themselves differently as a result of the learning experience.

It is difficult to gauge what SCL actually looks like in practice therefore from an educator’s perspective, SCL could be interpreted in different ways. Firstly, educators may think that SCL simply means to elicit group work, discussions in class and avoid large lectures. For others, as some of the literature suggests, SCL is about the transfer of power and responsibility from teacher to student which may be more complex to understand and implement and could happen in a small group set-up or a large lecture theatre. O’Neill and McMahon (2005) and Blackie et al. (2010) argue that SCL is more than just group activities; it is a completely different way of approaching and understanding learning and teaching. There may be certain approaches to SCL where students are engaged in discussions or activities; however SCL can be more of a subtle shift than this. SCL is about putting students’ needs first in the design and content of a course rather than trying to shoehorn activities or discussions into an already established curriculum.

Interestingly, Prosser and Trigwell (1993) found that teachers may adopt a teacher-centred approach when teaching undergraduates and a student-centred approach when teaching postgraduates, which highlights the influence of contextual factors in teaching intentions such as class size and student capability. Further research carried out by Prosser and Trigwell (2004: p. 419) suggests that when teachers feel that student learning has not been made a priority in their department, then those teachers are more likely to adopt an ‘information transmission/teacher-focused approach’ whereas teachers who have control over what is taught and are happy with their work load and class

sizes are more likely to adopt a ‘conceptual change/student-focused approach’ to their teaching.

There have been several critiques made about SCL. Cousin (2008) argues that for some teachers adopting SCL may be challenging because SCL is a shedding of the self as teacher and that SCL can rob ceremonial, ritual and theatrical dimensions of teaching. Others argue that despite its popularity, SCL is too focused on the individual learner (Simon, 1999). In addition, there are some difficulties in its implementation, i.e. the resources needed to implement it in large undergraduate classes (O’Neill and McMahon, 2005). O’Sullivan (2004) described SCL as a Western approach to learning that may not necessarily transfer to developing countries where there are limited resources and different learning cultures, although recent work suggests that some staff may struggle to understand the significant shifts in thinking and practice necessary for SCL to be implemented, regardless of their cultural and contextual background (Jordan et al, 2014). In addition, Prosser and Trigwell (2002) highlight their concern about the different belief systems held by staff and students; students who value or have experienced more teacher-centred approaches may reject the SCL approach as too radically different from what they are used to.

SCL is often deemed to be a form of active learning in that it involves a shift of focus from the teacher to the student and that with this shift comes more learner responsibility and autonomy. However, similar to active learning, SCL is not consistently defined in the literature nor does there seem to exist a clearly defined set of guiding principles about how educators should enact it. In the light of this, examining the nature of SCL offers a useful contribution to the discussion and articulation of active learning but the contribution is also somewhat limited. There are certain characteristics of SCL (e.g. student being self-directed, teachers taking account of students’ lived experiences, teacher-student interdependence) which appear similar to the characteristics of active learning as outlined in Table 1. However, to present active learning and student centred learning as one and the same thing would be misleading. Active learning appears to be a wider ‘umbrella’ term which certain progressive teaching strategies, such as SCL, can be placed underneath. Arguable, SCL is a form or a way of enacting active learning.

2.4.4 Problem-based learning

As an approach to learning and teaching, problem-based learning (PBL) is not a new concept. Barrows (1986) and Menon (1997) argue that a PBL approach began with the educational pragmatism espoused by Dewey (pragmatism meaning that knowledge only has meaning through the interaction between the learner and his/her environment). PBL is often associated with active learning because it is based on an alternative pedagogical model to that which relies on didactic delivery of content from the teacher (Greening, 1998). Students are encouraged to become self-directed learners when a real life problem is posed and as a group (or individually) they must devise possible answers and solutions (Prince, 2004). Rather than the answers being given by the 'all-knowing' teacher, students must navigate their own way through the problem and provide their own answers (Prince, 2004). Savin-Baden (2003: pp.2-3.) describes PBL as 'a means of educating students to learn with complexity' and that it 'helps students to see that learning and life take place in contexts, contexts that affect the kinds of solutions that are available and possible'.

However, PBL has been criticised because it is not 'real' enough, that the problems are too well-structured, that tutors can be too directive and that PBL relies heavily on students being able to work together harmoniously when in fact many tutorial groups can be dysfunctional (Dolmans et al., 2005). Fenwick and Parsons (1997) argue that PBL presumes the possibility of a detached knower, and that PBL does not take account of real life situations where other elements have significant influence on decision making e.g. time, place, social position, gender, and interpersonal relations. PBL could be viewed as a form of active learning because it de-centralises the role of the teacher and it promotes learner independence and autonomy (characteristics of active learning as outlined in Table 1). Having said this, there are those who would argue that by undermining the role of the teacher, PBL is a risky approach to learning and teaching; however this is refuted by Savin-Baden (2003) who implies that the role of the teacher is not diminished in a PBL approach. This argument suggests that there has to be a critical look at what constitutes 'teaching' and that a newer and more progressive definition is needed to incorporate approaches that view the teacher as more of a facilitator. Spronken-Smith and Harland (2009) suggest that because of its strong philosophical and epistemological foundations,

PBL often challenges traditional teacher-centred approaches in higher education, furthermore, (Kember, 1997) reports that making this kind of change, where the teacher relinquishes some control and becomes a facilitator, can be complex, especially for those who hold teacher-centred or didactic conceptions of learning and teaching.

PBL promotes the ideal of a constructivist learning environment which has become very popular in higher education, especially in the life sciences, medicine and dentistry and is used to promote lifelong learning, open inquiry, teamwork, and critical thinking (MacKenzie et al., 2003). As a response to the General Medical Council's call for new doctors be 'effective, self-directed learners, good listeners and communicators' (MacKenzie et al. 2003: p.13), the School of Medicine at the University of Glasgow incorporated PBL into its curriculum in the late 1990s. MacKenzie et al. (2003) compared two separate cohorts of first year medical students at the University of Glasgow, one learning by problem-based learning and the other learning by the traditional lecture method. MacKenzie et al. found that the PBL cohort's perceptions of learning and teaching at university differed significantly in the following four areas; i) the role of the student, ii) the role of the lecturer, iii) the nature of knowledge and iv) assessment. The majority of students engaged in PBL were inclined to perceive their learning as their responsibility and that knowledge was to be explored and created. The majority of traditionally taught students were unsure of their responsibilities and believed the curriculum to be facts which had to be learned and regurgitated at exam time. However, student participants in MacKenzie et al.'s research voiced their concerns that while a PBL curriculum encourages learners to be self-directed and become creators of their own knowledge, there is still a need for 'reinforcement lectures', which consolidate learning and provide an 'organisational framework' that reassures the students that they are progressing and performing satisfactorily (MacKenzie et al. 2003: p.21).

The University of Glasgow's medical curriculum has since been redesigned and at present there is a mixture of lectures, vocational and clinical classes as well as PBL tutorials in the first and second year and case-based learning (CBL) tutorials in the third year (University of Glasgow, 2011). CBL has its roots in PBL; however the fundamental difference is that PBL requires no prior experience or

understanding in the subject matter, whereas CBL requires the students to have a degree of prior knowledge that can then assist in solving clinical problems (Garvey et al. 2000; Williams, 2005).

As methods of learning and teaching, PBL and CBL try to bridge the gap between what is learned at university and how it may be applied in a real life situation. PBL and CBL may be ways in which active learning is enacted because they give equal attention to both the learning process as well as content. PBL and CBL have quite clearly defined rules and principles, therefore they may be useful examples to use when trying to define what active learning in higher education may be or look like.

2.4.5 Enquiry-based learning

Enquiry-based learning (EBL) is mostly prevalent in medical related and science education (Edelson et al. 1999; Magnussen et al. 2000), however there are signs that it is being implemented in the arts and social sciences (Hutchings and O'Rourke, 2006). EBL may be another way in which active learning is enacted owing to the fact that it describes an environment in which learning is driven by a process of enquiry owned by the student. EBL is similar to PBL in that students work in small groups and are provided with a problem which forms the basis of how they approach their learning. Researchers at the Centre for Enquiry-based Learning at the University of Manchester (2010) propose that EBL is a student-centred pedagogy with an emphasis on group work and that students gain a deeper understanding of the subject-matter. Furthermore, work at the University of Manchester (2010) also suggests that the benefits of EBL are that students are more engaged with the subject, they become self-directed and that working together in groups helps develop a students' employability. However, as with PBL, EBL does not exist in isolation, it depends heavily on the content of the curriculum, the motivation of the staff and students (i.e. do they believe in what they are doing) and the assessment methods of the course.

2.4.6 Collaborative and co-operative learning

The terms collaborative learning and co-operative learning are often associated with active learning because they both promote small group work and student

participation. The two terms are often used interchangeably, however, co-operative learning is usually more structurally defined than collaborative learning (Cooper and Robinson, 1998). Rockwood (1995) characterises the differences between collaborative and co-operative methodologies as one of knowledge and power; co-operative learning is the methodology of choice for foundational, traditional knowledge whilst collaborative learning is connected to the social constructivist view that knowledge is a social construct. Rockwood (1995) also argues that in co-operative learning the tasks are less open ended and the teacher is still an authority figure. In contrast, in collaborative learning the tasks are more open ended and teachers often have to relinquish some of their power to the students. Prince (2004) states that collaborative learning is when students work together towards a common goal and are often assessed as a group. Furthermore, Dillenbourg (1999) explains that collaborative learning strategies involve two or more people learning or attempting to learn something together and that it is based on the model that knowledge can be created within a group where members actively interact by sharing experiences.

Baker and Clark (2010: p.258) argue that co-operative learning is 'learning that takes place in a stable, formal group of two or more students who work together and share the workload equitably as they progress towards assessed outcomes'. They also suggest that if co-operative learning is not properly structured and supported by the educator, it can have a detrimental effect on learning whereas if it is implemented correctly, co-operative learning can encourage intercultural understanding, improve interpersonal skills and most of all prepare students for the participative modern workplace.

Baker and Clark (2010) reveal that there are many challenges to successful co-operative learning in higher education, not least when the cohort is made up of different ethnicities, cultures and languages. Their research shows that for many non-Western students, co-operative learning is both new and alien. Some students who have been educated in countries such as China for example, found it difficult to participate in lively debate or group discussion because their educational experience thus far had prioritised other forms of learning that were more competitive, individualistic and adhered to cultural rules such as respect and non-confrontation of peers. So in this case it is clear that co-operative learning is not a one-size-fits-all approach to good teaching. There are many

things which need to be taken into consideration when attempting co-operative learning such as the language ability of students, the cultural differences and the attitudes of all students to group work. Baker and Clark (2010) suggest that teachers and students must spend time discussing the processes and potential pitfalls of group work before embarking on co-operative learning. Each student must be aware of what is required and expected of them and equally the teacher must be clear on their role as facilitator and guider in the process.

As a form of co-operative learning, the jigsaw technique (which was first used by Elliot Aronson in the early 1970s) is an approach that makes students dependent upon each other for acquiring important information. This technique has been successfully applied in a higher education setting through an Higher Education Academy funded Jigsaw teaching project carried out by Honeychurch (2012) who reported that when assessed, students who were involved in jigsaw learning consistently outperformed those who were not by more than 5%. Aronson's idea was that, because each student has a part to play, then each student's individual work becomes essential for the completion of the task. If each student's contribution is essential, then each student is essential; and that is precisely what makes this strategy so effective (Jigsaw Classroom, 2013).

There have been criticisms of co-operative and collaborative learning; in particular Vreven and McFadden (2007) said there was no real additional benefit from co-operative learning in their study of a three week psychology course. Furthermore, Van Dijk et al. (1999) argued that the skills of the lecturer are more crucial than collaborative tasks. However, Sharan (2010) argues that because co-operative learning calls for pairs or small groups of students to exchange ideas and information about a topic or to plan how to study something together, this allows students to make their experiences and knowledge a vital part of the learning process. Sharan also argues that teachers need to embrace the space in which learners are enabled to bring themselves and their own lives into their learning, this encourages learners to make immediate sense of what they are learning and engages them on a level which they can understand. Therefore, when there is a diverse student population, students should be allowed to bring their own knowledge and ways of knowledge making with them, which means they are more likely to be successful.

To summarise, collaborative learning usually takes place when learners are given the freedom to come together to work on a task. It is less structured than co-operative learning. Collaborative learning is based on the premise that learners come together naturally and take control and ownership of their learning in conjunction with other learners. Co-operative learning usually happens because the person responsible for the teaching has orchestrated and structured the learning in that way. Learners are often, but not always, put into pre-determined pairs or groups and are given a specific task with specific end goals or outcomes. In exploring the term active learning, collaborative and co-operative learning are useful concepts from which some insight can be drawn. They present some key characteristics (e.g. peer interaction, learner responsibility and interdependence) which pertain directly to some of characteristics of active learning outlined in Table 1.

2.5 How students learn in higher education

This research explores the term active learning, therefore it is important to try to define what is meant by the term 'learning' before putting the word 'active' in front of it. Of course it would be nearly impossible to attempt to synthesise all the research which exists on the topic of learning, so what follows is a selection of theories which are most helpful in defining learning in higher education, these include: andragogy, learning styles, deep and surface approaches to learning, student engagement and transformative learning. It also must be made clear that some of the theories used in this section are not predominantly located in higher education literature; however, they are perceived useful for this piece of research.

2.5.1 Andragogy

Knowles' (1980) theory of adult learning, 'andragogy', suggests that adults need to know what relevance learning will have to their immediate lives, to their circumstances, needs and aspirations. The theory of andragogy also suggests that the process of learning is just as important as the content of learning which directly links to the characteristics of active learning as outlined by Bonwell and Eison (1991) and Price (2004). If students are to be engaged in the process of what they are learning (e.g. discussions, activities etc.), then appropriate learning and teaching methods must be chosen to produce optimum conditions for this to happen. Kolb (1984) suggests that students learn through experience, reflection and application, supporting Knowles' (1980) theory that learners want to know how they can apply their new knowledge. The concept of developing skills-based knowledge is supported and accentuated by Kolb's (1984) model of the learning cycle which contains four connected stages; 1) Concrete Experience (having an experience, 2) Reflective Observation (reviewing that experience), 3) Abstract Conceptualisation (learning from that experience, 4) Active Experimentation (trying out what has been learned from that experience).

According to Kolb's model, the ideal learning process engages all four of these stages in response to situational demands. From the work of Knowles and Kolb, it could be inferred that students learn best when allowed to contextualise their educational experiences and apply them in situ. Brown et al. (1989) explain this

theory in terms of ‘situated cognition’ where learning has to take place in real-time and be of immediate relevance in order for students to have optimum conditions for learning. Brown et al. (1989) suggests that learners must have the opportunity to observe, reflect and practise the skills which they are learning in order to master knowledge and techniques and subsequently internalise and apply them in different contexts.

However, Tenant (1999: pp. 91-92) argues that Kolb’s learning cycle is ‘too abstract’ and that at best, it is a ‘classification scheme and not a model of learning’. Tennant also critiques Kolb by arguing that the empirical support for this theory is weak and that it does not take into consideration cultural learning differences. Tennant (1999: p.7) argues that the ‘self-directed’ aspect of Knowles’ theory of andragogy is flawed because the term self-directed has ‘limitless interpretations’. Brookfield (1985) argues that self-directedness needs more explanation and should be more closely associated with the development of criticality and critical insight in learners. Tennant (1999: p.9) continues his critique by arguing that some andragogical assumptions are ‘untenable’ because there is a lack of supporting evidence and that as a concept, andragogy has conceptual and ideological limitations. Knowles’ theory of andragogy is said to be manipulative and paternalistic because a) it implies that learners are not self-directed when they first approach their learning and b) learners are trusted to have input into the process of learning but not the content (Tennant, 1999). Knowles’ work originates from the client-therapist relationship in behavioural therapy and is said to be too manipulative because at its heart it is seeking to change learners (Tennant, 1999: p. 17). Furthermore, Pratt (1993) argues that andragogy has done little to expand or clarify understanding of learning and that at best it is a theoretical position and not a theory.

Despite these criticisms, the theory of andragogy and Kolb's learning cycle may be of value when investigating active learning. Both Knowles and Kolb outline the importance of learners being self-directed and being given opportunities to experience something new, reflect on it and then apply it which directly links to some of the characteristics of active learning as proposed by authors outlined in Table 1.

2.5.2 Learning Styles

One of the most common and widely-used classifications of learning styles is Fleming's (2001) Visual, Auditory and Kinaesthetic (VAK) model which built upon an earlier neuro-linguistic model by Eicher (1987). Fleming (2001) defines learning style as an individual's characteristics and preferred ways of gathering, organising, and thinking about information. Fleming (2001) claimed that there are three main categories of learning styles: i) Visual learners; those who have a preference for seeing (think in pictures; visual aids such as overhead slides, diagrams, hand-outs, etc.), ii) Auditory learners; those who learn best through listening (lectures, discussions, tapes, etc.) and iii) Kinaesthetic learners or tactile learners; those who prefer to learn via experience—moving, touching, and doing (active exploration of the world; science projects; experiments, etc.). The VAK model may be of value when exploring the term active learning because it offers a unique interpretation of how students learn, and more specifically it suggests that being actively engaged in learning may be expressed in three different ways: looking, listening or doing.

Honey and Mumford's (1982) Manual of learning styles identified four different types of learner: 1) Activist (prefers doing and experiencing), 2) Reflector (observes and reflects), 3) Theorist (wants to understand underlying reasons, concepts and relationships), 4) Pragmatist (likes to have a go and try things to see if they work. Pertaining to active learning, 'activist' learners may benefit the most from learning which is physically 'active' in the sense that it could be collaborative and participatory because according to Kanninen (2009), the 'activist' learner likes to work in groups and learns best when they are involved in new experiences, problems and opportunities. One of the flaws of Honey and Mumford's learning styles model is that it suggests that only 'activists' are predisposed to succeed in an active learning environment whilst the three other types of learners are not. Therefore, attempting to label a learner an 'activist' or a 'reflector' may be an unhelpful 'pigeon-holing' exercise.

Goldfinch and Hughes' (2007) research using Honey and Mumford's Learning Styles questionnaire suggests that those undergraduate learners who have an activist learning style are more likely to drop out during their first year. Goldfinch and Hughes (2007) suggest this is because some didactic teaching

styles in higher education cater for ‘listeners’ and ‘contemplators’ rather than ‘do-ers’. Bonwell and Eison (1991) suggest that teachers should incorporate a variety of strategies into their teaching so that they offer a balance which suits the needs of all their learners. It has been suggested (Fleming 2001) that all students should be encouraged to evaluate their own learning style and this should be discussed in collaboration with the teacher so that everyone has a chance to influence how the learning and teaching process develops, and if this is done it can help to produce better learning strategies (Nesbit et al. 2004). This idea may seem a utopian model of what learning and teaching should be in higher education and, if this were to be implemented, it would take significant skill to assess the learning styles of a large cohort of undergraduate students. However, realistically it could be built in to the curriculum that students evaluate their own learning styles in smaller seminar, tutorial or lab groups.

Conversely, Coffield et al.(2004) critique the learning styles research and assert that learning styles approaches could actually hinder individuals’ learning experience by forcing them to pigeon hole themselves into a certain category of learner. Coffield et al. suggest that learning style inventories are not rigorous enough when tested and scrutinised and are therefore unreliable and subsequently unhelpful for both student and teacher. University educators are usually aware that people learn in many different ways and are often marginally better at applying their skills in particular ways. However, what Coffield et al. suggest is that teachers must be careful not to do is label students as ‘reflectors’ or ‘activists’ and assume they learn this way all the time regardless of the context or content of the learning. Similarly, Hall and Mosley (2005) conclude that labelling students with learning styles risks placing limits on their ambitions and others’ expectations of them. Hall and Mosley (2005) argue that learning styles are only useful if they lead to effective learning strategies. Schank (1997:p. 48) argues that ‘contrary to common belief, people don’t have different learning styles. They do, however, have different personalities…everyone learns in the same way…through failure and practice’.

However, Rayner (2007) refutes Coffield et al.’s critique by arguing if learning styles are to be useful then there needs to be more evidence based research into the relationship between learning styles and pedagogy, assessment and curriculum content. Sternberg and Zhany (2001) also suggest there is a

difference between learning styles (how a person prefers to learn), thinking styles (how a person prefers to think whilst learning) and cognitive styles (which is how a person knows, perceives and recognises what they are learning). It is perhaps ironic that learning styles, as a way to personalise learning and overcome supposed preconceived ideas about students, are providing teachers with yet another way to stereotype and to form damaging expectations of students. Scott (2010: p.14) argues that learning styles are consistent with the individualist value system of Western culture and that the 'continuing endorsement of learning styles has no place in education theory and practice that claim to be scientifically based'.

2.5.3 Deep and surface approaches to learning

Empirical research by Marton and Säljö (1976) suggests that there are two key approaches that students take to their learning – a deep approach and a surface approach. This research has since been elaborated upon by several other researchers in education (Entwistle and Ramsden, 1983, Ramsden, 1992; Richardson, 2005). Marton and Säljö's (1976) theory of deep and surface approaches to learning was based upon research into the different levels at which students process information. Ramsden (1992) describes a surface learning approach as one where a student uses short term memorising and where the learner is focused on content and superficial aspects of learning. Ramsden asserts that a surface learning approach is not authentic; it is an exercise in memory and imitation, it encourages learners to study without reflecting on either purpose or strategy and to treat knowledge as unrelated pieces of information. Ramsden (1992) describes a deep learning approach as more long-term, something which happens when there is an understanding and internalisation, and possible application, of concepts. Deep learning is about creating logical connections between pieces of knowledge so that patterns emerge and the learner can begin to relate this knowledge to their experiences.

Following on from Marton and Säljö (1976), Säljö's (1979) five classifications of learning also add to the approaches to learning discussion. Säljö's five different conceptions of learning are: i) Learning is a quantitative increase in knowledge and learning is acquiring information or knowing a lot, ii) Learning is memorising and storing information that can be reproduced, iii) Learning is about acquiring

facts, skills and methods that can be retained and used as necessary, iv) Learning is making sense or abstracting meaning and involves relating parts of the subject matter to each other and to the real world and v) Learning is interpreting and understanding reality in a different way which involves comprehending the world by re-interpreting knowledge. It could be said that conceptions one, two and three underpin surface learning approaches whilst conceptions four and five relate more to a deep learning approach.

Furthering the work done by Marton and Säljö (1976), Entwistle and Ramsden (1983) discovered what they believed to be a third approach to learning, namely a strategic learning approach. Richardson (2005) outlines a strategic approach to learning as one involving a very well-organised and structured approach where learners are concerned and motivated by grades and will pick and choose only what is necessary to gain maximum grades in assessments that count. Arguably, strategic learning could be interpreted as a logical approach to learning where there are significant time pressures or the student has core modules which they must take as part of their course but in which they do not have a specific interest. Marton and Säljö (1976) argued that approaches to learning are dynamic and content specific, and similarly Richardson (2005) also argues that it is important to clarify that although approaches may be classified as deep, surface or strategic, they are not fixed and one person may use any of these approaches at different times depending on certain factors such as context of learning and motivation for learning.

There seems to be a correlation between how a learner approaches their learning and how they view the construct of knowledge (Land et al., 2008), furthermore, Baxter Magolda (2009) has suggested that the development of students' beliefs about knowledge and learning is extremely important when investigating how students learn. William G. Perry's Developmental Scheme is also relevant when discussing how students come to understand what knowledge is. Perry's scheme, which he published in 1970, is a model for understanding students' conceptions of knowledge which proposes that students pass through a predictable sequence of positions of epistemological growth. Perry (1970) mentions explicitly in his Developmental Scheme that there are different ways in which a learner views knowledge. These are: i) knowledge as answers, known as dualism where knowledge is either right or wrong, ii) knowledge as answers

which can always be reached but those answers are contestable, and iii) knowledge is not about answers- knowledge is constantly reconstructed and never static. There may be parallels drawn between Perry's (1970) Developmental Scheme and Marton and Säljö's (1976) work on deep and surface approaches to learning. Firstly, if, as Perry (1970) suggests, knowledge is understood to be 'getting the right answer' then this may correspond to a surface approach to learning. Secondly, if knowledge is still about getting the right answer but with some room for reconfiguration and flexibility, then this may correspond to a strategic approach to learning. Finally, if knowledge is constantly reconstructed, fluid and cannot 'be learned' then this may correspond to a deep approach to learning. However, it must be pointed out that making links between Perry and Marton and Säljö's is tentative because Perry's scheme suggests students develop in their way of thinking about knowledge, whereas there is no implied development in the surface, strategic and deep model, they are approaches adopted at different times in response to context.

Mann (2001) discusses the issue of alienation and how this affects how students learn and she argues that entering higher education for the first time can be like entering a foreign land, with new customs, languages and bureaucracy. She argues that students may adopt a surface or strategic approach to their learning, both of which can lead to alienation because both approaches rely on external responsibility and not that of the self (Mann, 2001). Mann adds that it is less risky for students to adopt a strategic or surface approach to learning because these approaches are less likely to expose them to anything which may trouble or upset them or the way they view the world. Mann also argues that higher education often aims to develop the critical being, one who has a deep and transformative approach to their learning experience and that universities must promote an engaged instead of alienated experience of learning for students.

In defining active learning, Marton and Säljö's theory of deep and surface approaches to learning is helpful because it provides a useful framework. The term 'active learning' is perhaps linked more strongly with deep approaches to learning because it suggests that students are more engaged with what they are learning. It is important when discussing deep, surface and strategic approaches to learning to reflect on it critically, for example Marton and Säljö fail to acknowledge that learning and teaching is influenced by teachers' beliefs or

contextual factors therefore the theory itself appears apolitical in nature. Furthermore, any of these approaches (surface, strategic or deep) could be adopted in learning any subject, therefore there has to be a connection between the course or programme content (or knowledge/information being presented) and what a teacher wants their students to be able to do with this newly developed knowledge.

Both Brookfield (1995) and hooks (1994) agree that adopting a critical approach to teaching could be a way in which educators could encourage students to adopt a deep learning approach to learning. hooks (1994) suggests that learners construct knowledge in their minds, depending on which context they are in, and internalise it. hooks (1994) also states that the teacher who fosters critical thinking also fosters reflectiveness in students by asking questions that stimulate thinking which is essential to the construction of knowledge.

2.5.4 Student engagement

Active learning and student engagement are often closely associated because both terms suggest commitment to improving students' learning experiences. In recent years there has been much research which investigates and seeks to explain what is meant by the term student engagement (Bryson and Hardy, 2011; Coates, 2007: 2009; Kuh, 2009; Kuh et al. 2007:2008; Trowler, 2010; Trowler and Trowler 2010). Student engagement has also become a widely used term within many higher education policies, and like active learning, is defined in many different ways.

Kuh (2009: p.683) defines student engagement as 'the time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to induce students to participate in these activities'. Moreover, Coates (2007: p.122) describes student engagement as 'a broad construct intended to encompass salient academic as well as certain non-academic aspects of the student experience'. Coates (2007) highlights active and collaborative learning as one of the main factors which shape student engagement and Coates (2009) explains that active and collaborative learning were one of the main facets which formed the basis for the National Survey of Student Engagement (NSSE). As highlighted by Bryson and Hardy (2011: p. 3-4),

active and collaborative learning means that ‘students actively construct their knowledge’ which includes ‘asking questions in class and contributing to class discussion; making presentations, working with other students on projects during and outside of class; tutoring or teaching other students; and discussing ideas from reading outside class’.

When trying to define active learning, there may be some lessons to be learned from the student engagement literature and research, because active learning seems to be one vehicle in which student engagement can be defined and/or achieved. Bryson and Hardy (2011: p. 1-2) argue that student engagement is a socially constructed concept because it encompasses ‘perceptions, expectations and experience of being a student’. Furthermore, Bryson and Hardy (2011) emphasise Fromm’s (1978) notion that higher education should offer students an opportunity of ‘becoming not having’ meaning that learning is more than developing subject knowledge, it is about how a student changes as a result of the learning. With much emphasis upon the importance of the educational ‘experiences’ and ‘purposeful activities’ (Kuh et al., 2008), student engagement and active learning may intersect. This intersection is also outlined by Trowler (2010) who argues that a progressive conception of teaching, as often associated with active learning, has implications for student engagement because it involves a conceptual shift for educators to a student-centred approach in which the autonomy and self-direction of students are paramount.

Self-direction, being aware of and taking control of one’s own learning is described by Biggs (1985) as ‘Meta Learning’. Biggs further explains Meta Learning as an awareness and understanding of the phenomenon of learning itself as opposed to subject knowledge. Biggs’ work on Meta Learning suggests that the learner’s perception of the learning context is crucial as is their knowledge of the specific expectations of the subject and associated learning tasks. Using Biggs’ theory, Norton et al. (2005) carried out research which investigated what students thought made a really good student. Norton et al. (2005) found that learners who has a high level of Meta Learning awareness are able to assess the effectiveness of their learning approach and regulate it accordingly whereas, learners who are low in Meta Learning awareness will not be able to reflect on their learning approach and consequently they will be

unable to adapt successfully when studying becomes more difficult and demanding.

There may be a link between what Purnell (2006) (cited in Knox and Wyper, 2008) identified as the signs of signs of student engagement and some of the characteristics of active learning. Purnell (2006) argued that student engagement is evident when students share similar values and approaches to learning as their lecturers, spend sufficient time and energy on educational tasks, learn with others inside and outside the classroom, actively explore ideas with other people and learn to value perspectives other than their own. Some of Purnell's signs correspond with characteristics of active learning such as critical thinking and working with peers.

Students' motivation to learn has huge impact on the process and outcomes of learning. According to what they believe is the purpose of gaining a university education, students may take a particular course only to gain a certain amount of credits (extrinsic motivation) or they may take it simply because they are interested to learn more (intrinsic motivation). These issues have a significant impact on judging the successfulness of learning and whether or not students are engaging on a deep or superficial level. Bonwell and Eison (1991) argue that there is a danger of education falling into the trap of being viewed as a means to an end where learners are there simply to take advantage of the qualification they will gain. Furthermore, McFarlane (2004) suggests that the impact of 'massification' on universities means that students now come with very different agendas. Many come to university later in life and require their learning to be career specific and they are not engaging in education simply for the love of it.

Marsh and Ware (1982) examined the role of expressiveness (how animated and interesting a person is to listen to) in effective teaching and found that if students were motivated to learn content for the purpose of passing exams and getting good grades, then expressiveness had very little influence. However, they also found that if student motivation is simply to be entertained whilst learning, then expressiveness is of higher importance, even if the content of the teaching is relatively meaningless. Marsh and Ware (1982) suggested that if students were extrinsically motivated, the way in which they are taught is of little significance. This suggests that ultimately the learning and teaching

process is in the hands of the learner and the learner's motivation; this could subsequently render a teacher powerless when trying to control what happens in the classroom. Biggs (1995) suggests that to overcome this feeling of powerlessness, teachers need to first work with the students on an extrinsic motivation level by offering rewards and then, through time, develop good relationships in which they can help their students to move through different stages of motivation such as social (pleasing others), achievement (competing against fellow student) and finally intrinsic (personal curiosity).

2.5.5 Transformative education

There is a body of research in education literature (originating from the work of Mezirow, 1997), which suggests that education should be about more than skills and knowledge acquisition, it should emancipate people and the purpose of education should be to challenge what the learner thinks and how they see the world (Rogers in Nesbit et al., 2004). This type of claim, which uses transformative language, may seem quite ambitious for some educators working within the tightly regulated world of higher education; however, it may be that the purpose of engaging in higher education is for the learner to be fundamentally changed in some way, whether that is by developing new skills or acquiring knowledge which results in them seeing the world in a new way.

Jarvis (2010) argues that learning is done in either a reactive or a proactive way. In a reactive learning situation, students learn by adaptation, imitation and instruction. Jarvis argues that in a proactive learning situation, students learn by practice, planning, exploration and experimentation. Jarvis continues by saying that for a learner to have agency they must choose between the passive ‘me’ and the proactive ‘I’ associated with self-determination and autonomy. Learners must distance themselves from the ‘me’ who is reactive and a recipient of information and knowledge, and move towards the ‘I’ who is proactive and creates new meaning and understanding.

Learning is not just memorising content, it is an experience, it can be transformative and is more than the sum of all course readings (Bonwell and Eison, 1991). Of course, how transformative any learning can be depends on the content of what is being taught, the method in which it is taught and the

predisposition of the learner. Mezirow (1997) explains that transformative learning is the process of effecting change in a frame of reference and that adults have acquired a coherent body of experience—associations, concepts, values, feelings, conditioned responses—frames of reference that define their life world. Critical thinking has been outlined as one of the main characteristics of active learning (Berry, 2008; Bonwell and Eison, 1991; Denicolo et al.,1992; Rogers and Freiberg,1994) and if students are encouraged to adopt a critical approach to what they are learning, then this may be vehicle for achieving Mezirow's transformation in which there is a change in a student's understanding of the world.

It may be unrealistic to suggest that learning in higher education should or could be transformative in the sense that Mezirow suggests. Indeed, transformative education itself has come under scrutiny in recent years. Newman (2012) critiques the literature on transformative learning which he argues has grown repetitive. Newman suggests that the theory of transformative learning has been leeched of meaning because it is overused and generalised. He argues that all good learning should be transformative in that it will change the way the learner thinks.

2.6 Conceptions and beliefs about learning and teaching in higher education

How much a teacher is willing to engage in active learning or any type of progressive pedagogy is dependent on their conceptions and beliefs about learning and teaching. Investigating the literature on active learning has led to discussion around the issue of power and how that influences the transfer of responsibility for learning from the teacher to the student This section will also discuss issues around the teacher and student relationship and how that influences or is influenced by active learning. There will also be discussion around the constraints which educators believe hinder their ability to implement more progressive teaching strategies.

2.6.1 Power, politics and educators' beliefs

Teachers' ways of thinking and understanding are vital components of their practice (Nespor, 1987). Kagan (1992) argues that research into teachers' beliefs about teaching is the only way in which we can come to understand how good teachers are made. Kagan (1992: p.65) suggests that teacher's beliefs about teaching are often 'tacit' and 'unconsciously held assumptions about students, classrooms and the academic material to be taught'. Kagan also argues that even if teachers are aware of their own beliefs, they are often reluctant to espouse them publicly. Sharan (2010) suggests that teachers not only teach what they know, but also teach who they are. If this is true then teaching cannot be separated out from the person who teaches and their beliefs, assumptions and politics. Sharan's (2010) statement is similar to that of Freire's (2000) who said that education is never a neutral process and that no matter what subject or context, all education is political. Rowland (2000) argues that in the context of higher education, it would be naïve and potentially dangerous to think education is politically neutral. Rowland (2000: p.53) also argues that teaching approaches which place students at the centre cannot be considered without reference to power; to do so would be to miss the 'educational significance of what is being discussed'.

In higher education, it is usually the educators and policy makers who hold the power and not the learners. Mann (2008: p.5) suggests that higher education is

'neither neutral or natural' and that the way in which universities are organised is reflective of historical and social practices. Policy makers and educators make decisions about what is to be taught and how it is to be delivered, and as Freire and Sharan have stated, then the values and beliefs of those educators and policy makers will be implicit in the decisions they make. Montgomery (2008) argues that it is important to note how interactions and social constructions inherently raise issues of power within the classroom. Freire suggested that power dynamics in any learning and teaching environment must be acknowledged and recognised by both the teacher and the student in order for the learning to be authentic and for both parties to be able to engage in dialogue. He also suggested that an educator should not reinforce the values of oppression. Kugel (1993: p.322) argues that there has to be a 'dissolution of the Atlas complex' where teachers recognise that they do not have to do all the work. Teachers need to question what they teach and how they teach, they also need to be aware of their own values and stance and be careful not to impose these on their students. It may be acceptable for teachers to voice their own political/moral views but care must be taken to ensure they give breadth to their teaching and consider other views, especially those views which do not simply repeat or reinforce the conventional views of society.

It may be unrealistic to suggest that power can or should be addressed in the classroom or that teachers and learners should have discussions about the push-pull of power dynamics in the classroom because in some situations, educators and learners may not feel that it is appropriate or condoned by their department or institution. Institutional policies and rules often, but not always, determine what goes on inside the university classroom therefore it may be difficult for teachers and students to be open and honest and identify their own politics. However, for progressive learning and teaching practices to evolve and develop, especially practices which are associated with active learning, issues such as power must be explored because some definitions propose that for active learning to happen, learners must assume control of their learning.

2.6.2 Relationship between teachers and students

If it is true that teachers hold the most power in the university classroom, then their interaction and relationship (or lack of) with their students could

significantly influence the learning and teaching process. A teacher who adopts a didactic approach to their teaching may not interact much with their students and he/she may remain elusive and separate from the students. A teacher who adopts an inclusive, student participatory approach to their teaching may have more cause to interact with their students and get to know them. This is not to say that the didactic approach cannot be inclusive, but arguably it would be much more difficult. Of course there may be some middle ground between the didactic and the inclusive approach to teaching, as with any interaction between people there are many variables which can influence the situation especially in a teaching environment (i.e. class size, under/post graduate level, willingness of students to engage). Active learning often, but not always, denotes participation of students in the learning and teaching process, this may be in the form of peer collaboration, group discussion or some form of teacher and student interaction. Therefore it is important to explore the role of relationships in the university classroom, especially those between teachers and students.

Rogers (1993) discussed the role of the educator as one of a facilitator who possesses ‘a transparent realness ... a willingness to be a person’ someone who has ‘care, trust and respects for the learner’ (Rogers, 1993: p.241). The use of the term ‘facilitator’ rather than teacher raises questions about what the teacher’s role in the classroom is. Teachers may call themselves ‘facilitators’ rather than teachers simply because they do not want to be cast into a stereotypical role where the teacher dictates what goes on in the classroom. However, facilitator is possibly too weak a term to describe the work done by a competent, experienced and qualified teacher; maybe there should be a re-definition of what a teacher’s role, or indeed a facilitator’s role, should be in order to bring about a new understanding that being a teacher does not mean being dictatorial in the classroom. McWilliam (2009) argues that there is a middle ground between a teacher being either a ‘sage on the stage’ or ‘guide on the side’ as suggested by King (1993), this middle ground is referred to as ‘meddling in the middle’. Meddling, according to McWilliams, is necessary so that teachers give the proper support to students so that there is room for creative capacity building.

Kugel (1993: p.323) argues ‘teachers who want to get their students actively involved in their own learning don't just hold back, they have to work actively as

facilitators of their students' learning, doing some telling, some showing, some asking and some encouraging. They have to raise good questions and guide student activity into productive directions…and they have to listen'. The job of a teacher is to 'facilitate' learning; however a teacher must bring their own knowledge about the subject to the learning environment and is therefore more than a facilitator.

Gibbs (2012: p.14) argues that 'close contact with teachers' significantly impacts student performance and learning gains. Furthermore, Gibbs and Jenkins (1992) and Rogers (1993) report that relationships between educators and students are crucial to teaching and that it is also important for these relationships to be developed by both teachers and students. This is also emphasised by Freire (2000) who argues that there should be dialogue and critical partnership in the classroom. Didactic teaching methods (methods which have an instructional focus on the passing and receiving of information) may not allow student and teacher relationships to be nurtured because i) the culture of the learning environment suggests there is a knower who is to be revered and who is unapproachable, and ii) there may be a high ratio of students to teachers which may result in students feeling very anonymous and isolated.

Brookfield (1995) and Rogers (1993) both strongly advocate that learning and teaching is rooted in the construct of relationships and power dynamics. Brookfield (1995) discusses the importance of building a relationship in order to achieve successful learning and teaching and suggests that the role of the teacher in the adult classroom cannot be underestimated. Brookfield vehemently expresses his dislike of teachers pretending to be the equal of their learners or even more insultingly, trying to be their friend. This type of situation can lead to boundaries becoming blurred. It is important to acknowledge that in almost all learning situations, the educator is also the course assessor/examiner, and therefore a completely equal relationship may never be realised. However, it may be possible for the teacher to lessen the impact of this by being skilful in classroom management (Brookfield, 1995). Rogers (1983) explains that a good teacher is someone who is perceived as an authority figure but who instils a trust in their students to think and learn for themselves.

hooks' (1994) theory of engaged pedagogy encourages teachers to see learners in a holistic way and acknowledge that they bring life experiences with them. The underlying principle is that educators must construct a relationship with the learner, get to know them and eventually build up trust. Engaged pedagogy follows a Freirean approach in that it strives to create participatory spaces in which knowledge can be shared. hooks (1994), echoing Rogers (1993), suggests that educators must be willing to share experiences and show vulnerability in order to gain trust of the students. This type of approach would be reliant on trust and respect from both teacher and learner, as advocated by Rogers (1993), but crucially, both hooks and Rogers report that developing this kind of student-teacher relationship depends entirely on the teaching context.

Constructing a meaningful and effective teacher and student relationship is not an easy thing to do, there must be time dedicated to its development. In small class set-ups such as tutorials, seminars or labs, there may be more opportunity for students and educators to get to know each other; however this may be on a superficial level which really has no significant bearing on the learning and teaching process. Developing a teacher and student relationship which is genuine and respectful involves commitment from both parties. Freire (2000) emphasises the need for teachers to recognise that learners come with prior knowledge (of the subject, life etc.) and that the learning must start from where the students are at in terms of their knowledge and capability. Typically in an undergraduate course at university, less attention is paid to what the learners already know and students are treated as one homogenous group, however, where class sizes are smaller, educators may be more able to get to know their students, engage with them and evaluate the level of support and guidance they require.

Connectivity between the curriculum and what the teacher wants the students to be able to do is imperative. However, connectivity between the teacher's intentions and what the students are actually learning is just as imperative. Knewstubbs and Bond (2009) discuss the need for 'communicative alignment' in education in which what the teacher thinks they are teaching matches up with what the student is actually learning; often there are times where one does not match the other. It is very difficult for teachers to control what their students learn; in fact it may be almost impossible to control this. A teacher may share their learning intentions with the students via Intended Learning Outcomes

(ILOs), therefore they may think that the students are on the ‘same page’ as them and will learn exactly what they intended. However, there are often miscommunications and misinterpretations of what is said in classrooms which result in very different outcomes being achieved than were originally set. With the various teaching methods and environments used in higher education (lectures, tutorial, labs, problem-based learning etc.), communicative alignment may be difficult to achieve in every situation, especially when there is only one way communication with no interaction or dialogue.

Educators’ beliefs about learning and teaching can ultimately shape their teaching methodologies and methods; however, as argued by Argyris and Schon (1974) often there is a difference between what teachers believe they do and what they actually do in practice. Hallett (2010) mentions that the constraints of a tightly packed curriculum often mean that teachers cannot match their ideology to their pedagogy; time and curricular constraints may just be convenient excuses and in fact the real reasons why teachers often have a mismatch between what they say they do and what they actually do is more complex. Pajares (1992) argues that the lack of a clear definition and inconsistent use of terminology has been a major impediment to progress in research into the beliefs of teachers. Several terms have been used including orientations, conceptions, beliefs, approaches and intentions, but few of the studies give a definition of the terms used. The most commonly used term is ‘conceptions of teaching’ (Kember, 1997). Pratt (1992: p.204) suggests that ‘conceptions are specific meanings attached to phenomena which then mediate our response to situations involving those phenomena … we view the world through the lenses of our conceptions, interpreting and acting in accordance with our understanding of the world’.

Exploring how conceptions or beliefs about teaching influence curricular and methodological decisions may help in unravelling the term ‘active learning’. Kugel (1993) and Kember (1997) both set out five distinct stages of university teacher development and both of these models have a similar structure. Kugel (1993) suggests that there are five stages of development for university teachers. Stage one is when teachers focus their concern primarily on their own role in the classroom. Stage two is when teachers focus on understanding the subject they teach. Stage three is when they begin to focus on their students

and their ability to absorb what they have been taught. Kugel suggests that with stage three comes a more general shift of focus from teaching to learning. Stage four is when teachers begin to focus on helping their students learn to use what they have been taught. Finally stage five is when teachers try to help students become independent learners. Kugel warns that stage five is the most risky for teachers and students because it requires courage for the teacher to let go of some control and the students to venture into things alone.

Kember (1997) defines five conceptions of teaching: i) imparting information, ii) transmitting structured knowledge, iii) interaction between teacher and student, iv) facilitating understanding on the part of the student, v) bringing about conceptual change and intellectual development in the student. Kember (1997), and later Richardson (2005), believe that conceptions one and two are more teacher-centred conceptions and conceptions three to five are more learner-centred. Richardson asserts that teachers' approaches may change from teacher-centred to learner-centred the more experienced and confident they become. Richardson (2005) presents a model which synthesises the different influencing factors which determine teaching approaches. In his model, Richardson suggests that conceptions of teaching as well as discipline and environmental factors influence the teaching approach.

What can be gleaned from this discussion about student and teacher relationships is that it is not enough for teachers to be knowledgeable and well prepared when teaching their students, they must be willing to show vulnerability, their humanness and also be willing to adopt an inclusive, holistic approach to their teaching which values the experiences and prior knowledge of the student. This kind of approach to teaching may align itself more readily with active learning or progressive teaching strategies because there may be cause for more student and teacher interaction and interdependence.

2.6.3 Perceived constraints in learning and teaching

Toohey (1999) suggests that there are issues facing educators in higher education which can make change or development extremely difficult to achieve, these include: heavy workloads, high class contact hours, excessive course materials, emphasis on coverage of content not understanding,

assessment which focuses on recall not understanding, lack of learner choice on method of study, negativity and cynicism.

Assessment has a huge bearing on what strategies and methodologies are adopted by educators in higher education and it is said that assessment often falls back on old fashioned tests where all that is tested is accumulated knowledge (Kane, 2004; Toohey, 1999). Sambell et al. (2012) agree by arguing that most assessment in higher education focuses on testing what a student knows or can do and then this process ends with the teacher giving the student validation in the form of a mark or grade which is known as summative assessment. In response, students may naturally work towards learning which is required to pass the test, adopting surface or strategic approaches to learning as suggested by Marton and Säljö (1976), rather than engaging at a deeper level or applying their critical thinking skills.

Often used alongside summative assessment is formative assessment, which does not result in a grade but can be equally helpful for the student as it often takes place in real-time so that the students and the teacher can react and adapt as the situation requires. Formative assessment involves teachers sharing success criteria with learners, comment-only marking, peer- and self-assessment (Black and William, 2006; 2009). Black and William (2009: p.8) also advocate formative assessment as a way to encourage students to act as ‘instructional resources’ for one another; and to be ‘owners of their own learning’.

Research carried out by Nicol and McFarlane-Dick (2006) shows that if students are exposed to and engaged in formative assessment then they are more likely to take control of their own learning and become self-regulated learners (characteristics of active learning). Nicol and McFarlane-Dick (2006) also say that they believe students are already assessing their own work and generating their own feedback, and that higher education should build on this ability. Furthermore, they argue that by shifting the focus and encouraging students to have a proactive rather than a reactive role in generating assessment and feedback, the learning experience will be significantly improved.

Assessment for Learning (A*F*L) is becoming a well-known term in higher education. A*F*L combines both summative and formative assessment methods

and Sambell et al. (2012) assert that underpinning A*F*L is the principle that all assessment methods should contribute to better learning. Assessment should include effective feedback and the active involvement of students in their own assessment; this could be simply evaluating their own work as they go along or take a more progressive approach such as student involvement in setting assessment criteria. Race (2009) also argues that there should be a move from assessment of learning (A*O*L) to assessment for learning (A*F*L). This A*F*L approach signals a progressive move in which assessment is a strategic part of curriculum design and not simply a by-product or end goal. A*F*L has been used widely in primary and secondary schools in the UK (known commonly as AiFL, Assessment is for learning) for a number of years and focuses on formative assessment at every stage of the learning process (Scottish Government, 2005). Race (2009) suggests that in higher education, assessment should be the learning, meaning that as part of their learning, students should be making the assessment criteria and evaluating its effectiveness. Race suggests by doing this, students would have a much more transparent picture of what is expected of them and ultimately they would be more successful in their learning. Sambell et al. (2012) provide an excellent guide to A*F*L where they describe it as a holistic approach whereby formative assessment such as giving feedback is not simply bolted on to other assessment methods , but in fact is the basis of the learning itself. Tying in with the discussion of active learning, it could it be said that A*F*L is a form of active assessment because to some extent learners are involved in or have ownership of the assessment process.

Changing the format or dynamics of the curriculum, learning and teaching, or assessment methods can mean that more time and effort is required from all those involved (Bonwell and Eison, 1991; Bovill et al., 2010; Michael, 2007), however, Bovill et al. (2010) and Bonwell and Eison (1991) confirm that the results of student participation in pedagogical decisions are ultimately more rewarding for both the staff and students. Bovill et al. (2008; 2011) specifically discuss the inclusion of students in curriculum design. Bovill et al. (2008) suggest that there may be some barriers for teachers and students to overcome when working collegially on curriculum design; for teaching staff this may relate to reluctance to relinquish their power, and for students there may be a reluctance to think they have a valuable contribution to make. The participatory and

partnership approach to curriculum design as outlined by Bovill et al. (2008; 2011) may help in tackling what Brookfield (1995) calls the ‘mysterious cloak’ in which many institutions choose to shroud their teaching. Zahorski (1990) quoted in Millis (2012) also talks about this and calls it the ‘Oz screen’; referring to the movie 'The Wizard of Oz' and meaning that students rarely know what goes on ‘behind the curtain’ of the teaching and learning process. Brookfield (1995)and Zahorski (1990) both suggest that by demystifying the process of teaching and allowing learners to take an active role in curriculum design, implementation and evaluation, the level of student engagement and success could be enhanced.

Bonwell and Eison (1991), Nesbit (1998) and Sambell et al. (2012) discuss the element of risk when a teacher chooses to involve their students in the learning and assessment process: risk that the teacher will not feel in control of the class and also the risk that students will not be receptive to a change in the learning and teaching style. Michael’s (2007) study reports that teachers feel that they will lose control of the learning and teaching if they were to introduce more participatory learning and teaching strategies into the classroom. However, Michael (2007: p. 45) also suggests that the ‘linear model’ of teaching in which the teacher delivers information and the students receive it should become a ‘highly branched’ model which allows for diversions. Michael and Modell (2003) suggest that the teacher creates a roadmap for the start and destination point of their lesson and usually have at least one path between the two. Michael (2007: p.45) argues that active learning does not mean that the teacher loses control; instead it means that the’ control is just exerted differently’.

2.7 Summary of Chapter 2 - Literature review

The messy, complicated and complex nature of active learning is beginning to emerge; there still exists no single clear definition of what it should look like or how it could be implemented in the university classroom. However, as this literature review has suggested, the principles and characteristics of active learning can be traced as far back as Confucius and Socrates and that, although it may not have had the same name, active learning has indeed been present for centuries.

More recently, learning and teaching has had to adapt as a consequence of the massification and internationalisation of higher education, not to mention the pressure from marketisation. As the student population has diversified and motivations for coming to university have changed, learning and teaching have had to adjust; this has resulted in what may appear to be more 'active' teaching approaches such as student-centred learning, problem-based learning and other approaches which promote the development of skills. Similarly, the literature also suggests that there has been an increased focus on the modification of lectures so that they too appear more active and participatory.

There exist several attempts by researchers to define active learning in the context of higher education. Much of what has been published, especially literature from the latter part of the 20th century, rests on the idea that active learning is the opposite of passive learning and that for learning to be active it is necessary for students to be physically engaged in learning activities. However, as it has been argued, this explanation is an over simplification of quite a complex term. Active learning requires more in the way of critique in order to have a helpful and more contemporary definition. There are many factors which affect students' engagement with learning (and specifically, active learning) and teachers approaches to teaching; therefore, if active learning is to be defined, these factors need to be taken into consideration.

The factors affecting the conceptualisation, practice of and engagement with active learning are often elusive and intangible in nature; e.g. the construction and impact of the student and teacher relationship, constraints in learning and teaching and issues around student motivation. A synthesis of the literature has highlighted that there are many influences which need to be considered when investigating conceptions and practice of active learning in the context of in higher education. I offer below a table (Table 2) which presents a synthesis of all the characteristics of active learning which have emerged during this literature review.

Table 2: A synthesis of active learning characteristics

Characteristics of active learning specifically from the active learning literature		Characteristics of active learning informed by other literature	
Characteristic	**Reference**	**Characteristic**	**Reference**
Student responsibility for learning	Berry (2008), Denicolo et al. (1992) and Rogers and Freiberg (1994)	Deep approach to learning	Marton and Säljö (1976)
Collaboration between students, being involved in co-operative learning	Rogers and Freiberg (1994)	Power and political implications	Freire (2000), hooks (1994), Mann (2008), Sharan (2010)
Critical thinking	Berry (2008), Bonwell and Eison (1991), Denicolo et al. (1992) and Rogers and Freiberg (1994)	Modification of lectures and incorporation of activities	Bligh (2000), Exley (2010) Gibbs and Jenkins (1992), Johnstone and Penner (1984), Percival (1976) Meltzer and Manivannan (2002), Revel and Wainwright (2009)
Learning and developing skills	Bonwell and Eison (1991) and Denicolo et al.(1992)	Socially constructed	Dewey quoted in Fairfield (2011), Vygotsky (1978)
Engaging students in the learning process	Bonwell and Eison (1991), Prince (2004)	Student-centred	O'Neill and McMahon (2005)
Students are engaged in activities (projects, role-plays, discussions etc.)	Berry (2008), Bonwell and Eison (1991), Chickering and Gamson (1987) and Prince (2004)	Strong relationship between student and teacher	Brookfield (1995), Freire (2000), Gibbs and Jenkins (1992), hooks (1994), Rogers (1993)

I have identified several areas / gaps which warrant investigation in this research project. These areas / gaps will form the research questions which will guide the collection of data. The main gaps I have identified are: i) there is no agreed, consistent or coherent definition of active learning in the context of higher education, ii) there is very little research which explores the links between good teaching and active learning and iii) there is no research which investigates how students' and teachers' beliefs about the purpose of a university education influence the practice of active learning. The following chapter outlines the theoretical frameworks, methodology and methods of data collection which underpin this research project. The chapter also explains why data was collected in four different settings and how I approached the analysis of the data.

Chapter 3 Methodology

3.1 Introduction: what is being researched?

This chapter explains why I chose particular methodology and methods for this project and how those choices were influenced by larger theoretical and epistemological beliefs. I understand that all the methodological terms I use in this chapter are contestable and are in no way definitive. The main question guiding this research is 'what is active learning in the context of higher education?' In order to answer the main question there are also two sub questions; 'is there a relationship between good teaching and active learning? And 'how do students' and teachers' beliefs about the purpose of a university education influence the practice of active learning?' In order to explore these questions, I chose to use case study methodology informed by interpretivism and critical theory.

This research project began as a case study investigation of active learning across different disciplines at the University of Glasgow; however, as the project progressed and I was involved in a range of international teaching projects, I began to consider the cultural influence upon people's opinions of active learning. I decided to take advantage of the locations in which I was teaching to collect data opportunistically (with ethical approval) as a way to offer alternative international perspectives upon definitions and conceptualisations of active learning. As a result, data was collected from four separate institutions; The University of Glasgow, UK, An-Najah National University, Nablus in the occupied Palestinian territories, Hawler Medical University, Iraq and The University of Cape Coast in Ghana. However, the majority of data was collected in Glasgow.

Active learning in higher education is an area which has been investigated previously by many other researchers (Adler, 1982; Berry, 2008; Bonwell and Eison, 1991, Chickering and Gamson, 1987; Denicolo et al., 1992; Ericksen, 1984; Exley, 2010; McKeachie, et. al., 1987; Michael and Modell, 2003; Prince, 2004 and Thomas, 1972). However, to the best of my knowledge no one has attempted to explore active learning in the specific UK and international contexts which I have chosen. It is my intention that my research will build

upon existing work and will offer new insight and unique contribution to the understanding of active learning in the context of higher education.

3.2 Epistemology

‘An epistemology ... is a way of understanding and explaining how we know what we know' (Crotty, 1998: p.3). Epistemology focuses on the nature of knowledge and how we can come to know something. In turn epistemology raises issues around the context of research, generalisability and transferability of 'results' and the role of the researcher. As with other underlying elements of paradigms, epistemological beliefs and assumptions will overlap, influence and be influenced by, many other elements (Hedge, 2009). The ability to identify the relationship between the epistemological foundation of research and the methods employed in conducting research is critical in order for it to be truly meaningful.

My epistemological beliefs are rooted in social constructionism. Crotty (1998) argues that reality is a construct of human interaction and that ‘social constructionism emphasises the hold our culture has on us; it shapes the way in which we see things … and gives us a definite view of the world’ (Crotty, 1998: p.58). By being explicit about my social constructionist epistemology, I infer that the area being researched (active learning) is a phenomenon which only exists because people give it meaning.

I am drawn to social constructionism rather than positivist or post-positivist epistemologies because I believe it best suits not only the research work being carried out, but my own beliefs about knowledge. Initially my research was guided by one question; ‘Does active learning produce more successful and engaged learners?’ However, I felt that this question leaned towards a ‘yes/no’ answer and suggested that there was something to be proved, therefore the question stemmed from a more positivist epistemology. On reflection, it was clear this was not the kind of approach which suited the kind of research I was hoping to conduct because of my own epistemological beliefs about how knowledge is created. According to Crotty (1998), positivist epistemologies are based on the premise that the truth exists in and of itself whether or not people are there to make sense of it. Positivist epistemologies are often more common

in the ‘hard’ sciences where the researcher attempts to be objective and as removed as possible from the object being studied. From my perspective, positivism and post- positivism appear incongruent and difficult to apply to research which looks at human nature and human interaction. For the purposes of this research project, I believe it would have been impossible for the subject being researched (active learning) to be considered as existing independently of either me as the researcher or the participants of this study. I have a more natural affinity with a relativist approach such as social constructionism.

3.3 Theoretical Frameworks

My epistemological beliefs (social constructionism) guided my choice of theoretical frameworks which were interpretivism and critical theory. The interpretivist paradigm or hermeneutic approach to researching and understanding social science was advanced by Peter Winch (1926–1997) and hermeneutic scholars such as Wilhelm Dilthey (1833–1911) and Hans-Georg Gadamer (1900–2002) (Travers, 2007). Dilthey highlighted that the subject matter investigated by the natural sciences was different to the social sciences, where human beings as opposed to inanimate objects can interpret the environment and themselves (Travers, 2007). In contemporary research practice, this acknowledges that facts and values cannot be separated and that understanding is inevitably prejudiced because it is situated in terms of the individual and the event (Cousin, 2005; Elliott and Lukes, 2008).

Interpretivists believe that reality is not objectively determined, but is socially constructed (Husserl, 1965). Researchers recognise that all participants involved, including the researcher, bring their own unique interpretations of the world or construction of the situation to the research and the researcher needs to be open to the attitudes and values of the participants or, more actively, suspend prior cultural assumptions (Mackenzie & Knipe, 2006). I chose interpretivism as one of my theoretical frameworks because I concur with Cousin (2009) that objectivity is impossible in the human sciences and that as the researcher I am part of the setting and not outside it. I wanted to explore the depths of human understanding about what active learning is and I was keen to delve deep into the worlds of my participants, albeit for a very limited time, and therefore I

tried to understand and subsequently interpret what they said and what they did.

Interpretivist research is recognised for its value in providing conceptual depth; however, it is often criticised in terms of its validity, reliability and generalisability (Kelliher, 2011). In response to this type of critique, it is arguable that interpretative research using qualitative methods does not require the same levels of validity, instead researchers should be concerned with understanding (Wolcott, 1994) and trustworthiness (Jones et al, 2006). Furthermore, the detail and effort involved in interpretive inquiry allows researchers to gain insight into particular events as well as a range of perspectives that may not have come to light without that scrutiny (MacDonald et al., 2000).

My second theoretical framework was critical theory. I wanted to evaluate active learning in higher education by taking a critical look at underpinning theories that inform our understanding of active learning and how these translate to real-life situations. Originating in the Marxist Institute for Social Research at the Goethe University in Frankfurt in Germany, critical theory is a school of thought that sets out to critique society and culture (Geuss, 1981). Critical theory contrasts with traditional theory by attempting to not only understand or explain society but to change it. Critical theory is commonly associated with research which is sensitive to questions of power and which also aspires to put research in the service of social justice (Cousin, 2009). Alvesson and Skoldberg (2000) and Crotty (1998) argue that social science research is never value-neutral and critical theory keeps the spotlight on power relationships within society so as to expose the forces of hegemony and injustice. Progressive and radical pedagogies are associated with addressing the imbalance of power in the classroom (Brookfield, 1995; Bovill et al. 2008; Freire, 2000).

There exist certain criticisms of critical theory. For example, critical theory makes a sweeping assumption that most neoliberal policies and practices are inherently wrong, whereas in reality nothing is ever that simple. Furthermore, Kincheloe et al. (2011: pp. 163-167) argue that it is difficult to ‘package’ critical theory as it goes against the very nature of its wariness of ‘historical blueprints’.

Lincoln et al. (2011: p.93) suggest that 'getting mad is no longer enough, we must learn how to act in the world in ways that allow us to expose workings of an invisible universe'. My own reservations about employing critical theory were that in order to meet expectations, this research must result in grand notions of emancipatory and radical action. I was unsure that this research could fulfil any of these notions completely; however, I certainly aspired to critical theories ideals and values. Following the suggestion of Horkheimer (1982) who argued that critical theory is adequate only if it is explanatory, practical, and normative, this research will explain: how power shapes conditions and practices (such as active learning) within the university classroom; who can act to change it so that power distribution is more equal (i.e. teachers, students, or both); and finally, suggest how transformation can be achieved.

Using both interpretivism and critical theory allows me as the researcher to go in-depth into participants' understandings of active leaning, but more than this, it uncovers how and why participants' understandings are shaped and influenced by power structures both inside and outside the classroom. Advocates of interpretivism and critical theory argue that, in research, facts cannot be separated out from values. This particular point is relevant for research which investigates active learning because active learning only has meaning because people give it meaning; it exists because people attribute their understanding and values to it. Interpretivism and critical theory share a similar goal; to actively challenge interpretations and values in order to bring about change. This leads to a common criticism of critical research that the aim is to support a political agenda (Hammersley, n.d.). However, Creswell (2003) argues that this is a necessary consequence because politics and inquiry are intertwined or inseparable and, by having an agenda of reform, all participants' lives can be transformed for the better.

Active learning is often understood to be about changing the dynamics of the classroom so that students may have more say in the content and processes of their learning (O'Neil and McMahon, 2005). In order to achieve this there is a need to address the balance of power between the learner and the teacher. The main aim of this research project is to investigate active learning in the context of higher education, and in investigating this issue the research may possibly uncover how active learning approaches can influence the balance of power

within a university teaching environment or how power within the university teaching environment can influence definitions and practices of active learning.

3.4 Main Research Question: What is active learning in the context of higher education?

My first research question is an attempt to address a gap in the literature. There is no agreed definition of active learning in higher education and furthermore, there is no existing critique of active learning in the literature.

In order to answer this research question I had to consider the following factors:

- What does active learning look like?
- How do teachers and students enact or experience active learning?
- Is it possible to be actively learning in a lecture?

3.4.1 Sub Question 1: Is there a relationship between good teaching and active learning?

I asked this question because the literature often seems to connect active learning with good teaching; however, I am unsure if active learning does always link to good teaching and will investigate further how these concepts relate to each other. I believe this sub question will help to unpack the underlying ideals which underpin the concept of active learning.

The following factors were considered when trying to answer this research question:

- Is good teaching reliant on active learning?
- What does good teaching look like in an active learning environment?
- Does active learning promote a better relationship between student and teacher?

3.4.2 Sub Question 2: How do students' and teachers' beliefs about the purpose of a university education influence the practice of active learning?

I asked teachers what is the purpose of a university education because I believe this is what drives many decisions which are made in the classroom. I did not have this in mind when I started this research, however as I formed my ethics application and my guiding research questions, I began to realise that this question was probably the most powerful of all those I asked. Teachers' philosophy of teaching and students' beliefs about learning could possibly be the most significant influences on why they engage in the profession or undertake studying for a degree. Understandings about active learning may rest on why students and teachers think they are there in the first place.

The following factors were considered when trying to answer this research question:

- What do teachers and students consider the purpose of a university education to be?

- How do their views on the purpose of a university education influence whether or how they enact active learning?

3.5 Methodology

Informed by interpretivism and critical theory, the methodology I have chosen to use for this research is case study. Although some scholars argue that case study research is not a methodology but a choice of what is to be studied (Stake, 2005), others present it as a methodology (Denzin and Lincoln, 2005; Merriam, 1998 and Yin, 2003). By examining the literature on case study methodology, I found that it can be both contradictory and confusing. Merriam (1998) suggests that there is little consensus about what constitutes a case study or how exactly this type of research is done. In the field of qualitative research methodology, many authors discuss case study as a methodology along with phenomenology, ethnography, and grounded theory (Crotty, 1998; Creswell, 1998; Denzin and Lincoln, 2005; and Guba and Lincoln, 1994).

Case study methodology is differentiated from other research strategies because the focus of the research is a bounded system or case. Merriam (1998: p.27) maintains that the single most defining characteristic of case study research lies in delimiting the object of study: the case, and that 'the case is a unit, entity, or phenomenon with defined boundaries that the researcher can demarcate or 'fence in', and therefore, can also determine what will not be studied'. Merriam (1998) also argues that the case study does not claim any specific data collection methods, but focuses on holistic description and explanation. There are different kinds of case studies; Merriam's (1998) explanation of 'heuristic' case studies, where the focus is on the understanding and gaining new insights and meaning about phenomena (for this research the phenomenon would be active learning), seems relevant to this research.

Yin (1984: p. 23) defines the case study research methodology as 'an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used'. My use of case study methodology allows the researcher to draw similarities and differences without having to make direct comparisons, this is extremely useful given that data was collected across disciplines. Choosing case study methodology seemed an approach consistent with my research aims because it is the preferred strategy for research which asks how and why questions (Yin, 2009) and systematically explores a setting in order to generate understandings about it (Cousin, 2009). Critics of the case study methodology believe that the study of a small number of cases can offer no grounds for establishing reliability or generality of findings, although it can offer lessons that may be adaptable in other settings and contexts. In principle, I do not wish to generalise my research because I believe human experience is not generalisible and as said by Stake (2005: p.8), case studies are about 'particularisation not generalisation'. However, I do believe case study research can bring about a better understanding of the complex issue which is active learning and add strength to what is already known through previous research.

3.6 Methods of data collection

My choice of qualitative methods for this research came quite naturally as I believe my epistemology, theoretical frameworks and my methodology guided me. Qualitative research methods allow the researcher to access complex layers of meaning and interpret human behaviour and experience beyond surface appearance (Cousin, 2009). Furthermore, qualitative methods support the idea that there is no 'one' truth and that reality is in the construct of the human mind. Interviews (and I would argue other qualitative methods) can bring understanding, interpretation and meaning to description of social interactions (Lichtman, 2006).

Ravallion (2001) states that the greatest barrier to mixing quantitative and qualitative methods is the resistance of researchers to step outside their own discipline boundaries. Most literature agrees that it is helpful if researchers first set out clearly the scope of their research and their research questions and then use them to decide which methods would be most appropriate. However, from my own experience, research is not always so linear, and many researchers, myself included, begin their project with a predetermined idea of how they will collect their data and only part way into the project become more aware of the different research design alternatives that are possible. Social constructivist epistemology lends itself more easily to qualitative research methods because it acknowledges that there can be multiple and complex meanings that need to be qualified with explanations.

In this research, I collected data predominantly from the University of Glasgow and subsequently and opportunistically from three other setting; An-Najah National University, Nablus, occupied Palestinian territories, Hawler Medical University, Iraq and the University of Cape Coast in Ghana. I was granted ethical approval for UK and International data collection from the College of Social Science at the University of Glasgow in October 2010. I also sought permission from all three other institutions where my research was carried out. Every participant was given a plain language statement to read (see Appendix 5) and a consent form to read sign (see Appendix 6). Financial rewards were not offered to any persons involved in this research project. There are ethical implications to be considered when conducting in-depth qualitative research. In my plain

language statements I outlined that any information collected and used in this thesis would be anonymous. I identified participants by their discipline and their location so that I could highlight the differences and similarities between contexts and disciplines. No names were used in any part of this thesis and I would continue to adhere to this same protocol if I were to publish from this thesis.

The data was collected using a) semi-structured interviews with lecturers (see Appendix 7 for the semi-structured interview questions), b) observations of 'active' learning (see Appendix 8 for observation schedule), and c) student focus groups (see Appendix 9 for focus group questions). I subsequently reviewed my semi-structured interview questions which were used for interviews with academics in the UK, in preparation for the second stage of my research which was international data collection. I made minor changes as I believed that some of the original questions were no longer relevant or appropriate (see Appendix 10 for revised semi-structured interview questions).

My interview questions were comprised of a mixture of specific questions about active learning and some more general questions about teaching and learning in higher education. In the semi-structured interview questions for UK teachers 5/19 questions asked specifically about active learning. In the revised semi-structured interview questions for international teachers, 1/7 questions asked specifically about active learning. In the student focus group questions, 3/14 asked specifically about active learning. I was keen to explore other factors which affect and influence the practice of active learning therefore I asked questions pertaining to other issues such as: teaching philosophy, taking risks in teaching; and what makes a good teacher. I believed that by asking these types of varied questions it would allow me to make connections to other influencing factors and help in constructing a new conceptualisation of active leaning.

Scheurich (1995) suggests that interviewing as a research method can be artificially separated into two parts. The first part is actually doing the interview; the second is interpreting the interview. In the conventional one-to-one interview, the researcher asks the participant some questions, which may be predetermined (close-ended interviews) or developed within the interviewing process (semi-structured interviews) and records the answers, usually on audio

tape (Bogdan & Biklen, 1982). The audio tape is transcribed and then treated as a text. This text is analysed and coded to support or develop some themes. My semi-structured interview questions were designed to encourage participants to enter into a conversation with me and for them to feel free to express their opinions without inhibition. However, as argued by Scheurich (1995: p.240), interviews are not objective in that the researcher has 'multiple intentions and desires, some of which are consciously known and some of which are not'. Scheurich (1995: p.240) also suggests the same is true of the interviewee and that the language out of which the questions are constructed is not 'bounded or stable; it is persistently slippery, unstable, and ambiguous from person to person, from situation to situation, from time to time'. This more subjective, interpretivist account of the interviewees' experiences was consistent within my social constructivist framework.

I used observations as another of my data collection methods. Stake (1995) argues observations are part of a qualitative and interpretivist approach. Observations also require that the researcher must place themselves in the field to observe the working of the case and objectively record what is happening and simultaneously examine its meaning and then refine or substantiate those meanings. I disagree with Stake's statement that the researcher can be objective (as argued by Cousin, 2009) or record what they see objectively because the entire premise of a relativist epistemology is that there is no one truth nor one way of seeing things. Hammersley (1992: p.28) argues that there is not a single objective description of the particular phenomenon being researched; he suggests that how we describe an object 'depends not just on decisions about what we believe to be true, but also on judgements about relevance'. Hammersley (1992: p.28) also notes that the same is true for explanations: 'what we take to explain a phenomenon depends not just on our ideas about what causes what, but also on the purposes for which the explanation is being developed'.

I arranged my observation schedule (see appendix 8) to include as many prompts as possible which would help to uncover whether active learning was happening, for example some these prompting questions included: do the students appear to be engaged in their learning?; does the tutor use activities as part of the lesson?; and is there any independent work going on? I found these prompts very helpful

when carrying out the observations. I conducted the observations at a time convenient for the participants and asked them to choose a class which they thought was appropriate for me to observe for my research. I produced an observation schedule which I completed at the time of the observation and then further annotated afterwards. I was aware that during the observation my presence might alter what would normally happen in that class. Stake (1995: p.12) suggests that by carrying out observations 'we try not to disturb the ordinary activity of the case' but inevitably 'the interpretations of the researcher are likely to be emphasized more than the interpretations of those people studied, but the qualitative case researcher tries to preserve the multiple realities, the different and even contradictory views of what is happening'.

I was introduced to the students in most of the classes I observed and most of them were informed of the purpose of my presence there. On reflection, I am aware that this may have upset the normal balance of things in the classroom. Similarly, the teacher who was kind enough to allow me access to his/her class, was obviously also aware of my being there and may have consciously or unconsciously altered their normal teaching approach. The Hawthorne effect is described by Jones (1992) as altered behaviour during the course of an experiment because of the subject's awareness of participating in the experiment and Davies and Shackleton (1975) describe the tendency for people to behave differently when they know they are being studied. I was aware that by my presence in the classroom I had to power to change what went on simply by being there.

My decision to include focus groups in this research was made in order to capture collective student perspectives on active learning. At the simplest level, a focus group is an informal discussion among a group of selected individuals about a particular topic (Wilkinson 2004). Kitzinger (1995) argues that focus groups capitalise on communication between research participants in order to generate data. Kitzinger (1995) also suggest that although group interviews are often used simply as a quick and convenient way to collect data from several people simultaneously, focus groups explicitly use group interaction as part of the method. This means that instead of the researcher asking each person to respond to a question in turn, people are encouraged to talk to one

another: asking questions, exchanging anecdotes and commenting on each other's experiences and points of view. In my research, I not only wanted to explore students' knowledge, perceptions and experiences about active learning, I also wanted to examine why students thought about active learning in these ways.

The focus groups included students who were currently studying at the University of Glasgow and whom I had already observed in class. My understanding of group dynamics and of the power held by the interviewer/facilitator was at the forefront of my mind, therefore I was vigilant of the effect of age, gender, ethnicity, social power, expertise and environment as suggested by Cousin (2009). It was my intention to create a space which allowed me as the researcher to progress my understanding through a problematized narrative with the participants of this research. Problematization as defined by Crotty (1998: p.155-156, citing Freire, 1977) is 'a critical and pedagogical dialogue or process and may be considered de-mythicisation. Rather than taking the common knowledge (myth) of a situation for granted, problematization poses that knowledge as a problem, allowing new viewpoints, consciousness, reflection, hope, and action to emerge'. This was consistent with the critical theoretical underpinning to my study.

Cousin (2009) suggests that objectivity in entirety is impossible, but as researchers we must be mindful of honesty and plausibility, and it is to this end that my intention was to try to find different truths through dialogue. I audio-recorded the interviews and focus groups and transcribed them. Using semi-structured interview questions, I asked a series of questions which asked the participants to reflect on and articulate what they believed active learning to be. I allowed the participants time to think and respond and, although very difficult, I tried not to fill silences. By adopting a critical theory framework it was important that I as the researcher was also critical of my own presumptions and opinions. I was all too aware that my assumptions and knowledge are bound up in my values and I am a reproduction of the class, race and systems which I live in.

3.7 Settings: Part 1

3.7.1 University of Glasgow, Glasgow, Scotland, UK (Data Collection: Nov 2010 – March 2011)

Using my home institution seemed a natural place to begin my data collection. Via my own contacts (as a student and staff member) and the contacts of my PhD supervisors, I had access to teaching staff and students. I conducted nine interviews, nine observations and three focus groups.

3.7.2 An-Najah National University, Nablus, West Bank, occupied Palestinian territories (Data Collection: May – June 2011)

As part of the Zajel International Rays of Justice programme, I travelled to Nablus to help undergraduate students develop skills in the areas of academic writing, working in groups and effective communication in English. Using my own teaching philosophy of participatory learning, I provided learning opportunities for the students to engage in discussion and activities relating to relevant issues which affected their studies and their lives. I also spent time visiting the refugee camps in an around the West Bank and spoke to youth and activist groups which gave me a better understanding of life under occupation and the role that education could play in transgressing oppression. Whilst there, I conducted one interview.

3.7.3 Hawler Medical University, Erbil, Iraq (Data Collection: September 2011)

I was involved in a student-centred learning teaching programme which was organised by the University of Glasgow and funded by the British Council. I travelled to Kurdistan in Northern Iraq and delivered a series of student-centred learning workshops for medical educators at Hawler Medical University. Whilst there, I conducted one interview and one observation.

3.7.4 University of Cape Coast, Ghana (Data Collection: Oct 2011)

I have travelled twice as a volunteer to help develop learning and teaching in Let Us Shine Girls School, Kpandai, Northern Ghana. Having taught in the same school in Ghana in 2010 and gained an insight into a Ghanaian and African

approaches to learning and teaching, I believed it would be a very interesting addition to my research if I could collect data from a university there. In preparation for return visit to Let Us Shine in 2011, I contacted a lecturer at the University of Cape Coast and asked if I would be allowed to visit and collect data. He agreed to host me and put me in touch with staff who would agree for me to interview them and observe their teaching. I conducted two interviews and four observations.

3.8 Settings: Part 2

My initial round of data collection was at the University of Glasgow from 2010-2011. The opportunities to collect data from other institutions in the occupied Palestinian territories, Iraq and Ghana were opportunistic rather than a formally planned part of my initial research proposal. However, I realised that including data gathered from these three other international settings made it possible to explore understandings of active learning through an alternative set of cultural and contextual lenses. I wanted to investigate whether or not there were different international understandings of active learning that overlapped or contrasted with understandings held by Glasgow staff and students.

The three international settings were culturally very different from one another and could have formed separate cases in themselves if I had had the opportunity to spend more time and collect an adequate amount of data. The limited data collected in each of these settings and the need to try to provide in-depth data for each setting meant that these international settings could not be presented as individual cases nor, as previously mentioned, formed into one case study. They do, however, provide an alternative set of international perspectives to the views from Glasgow.

At the University of Glasgow, I conducted observations, interviews and focus groups with participants from all four colleges of the University of Glasgow: social sciences, medical, veterinary and life sciences, arts, and science and engineering. I chose to conduct my research across different disciplines in higher education in the hope that it would allow me to synthesise these different interpretations of active learning.

In the international settings I conducted data collection through opportunistic approaches where in some cases I was guided to specific teachers and classes by the person who was my contact or host at that particular university. This resulted in data being gathered from geography in Nablus, from dentistry and medical science in Iraq and from arts and social sciences in Ghana.

3.9 Educational Contexts for Data Collection

3.9.1 Case Study: The University of Glasgow, Glasgow

Scotland has a population of approximately 5.2 million and Glasgow 592,820 (Scotland. Org, n.d.). Scotland has a long tradition of liberal, public education and currently, Scottish and EU students can undertake undergraduate degrees at any Scottish University and it will be funded by the Scottish Government. There are currently nineteen Higher Education Institutions in Scotland, including fifteen universities and in the academic year 2011-2012 there were 281,630 students enrolled in Scottish universities (Scottish Government, 2013). Established in 1451, the University of Glasgow is the second oldest university in Scotland and the fourth oldest in the English speaking world. It is ranked in the top 1% of universities in the world and prides itself on its internationalisation and widening participation achievements. The University is research intensive with an annual income of over £400 million (University of Glasgow, 2012). The University is made up of four Colleges (Arts, Social Sciences, Medical, Veterinary and Life Sciences, Science and Engineering) and within these Colleges are twenty different Schools. At present the University of Glasgow has over 23,000 students from 120 countries and 6,000 staff (University of Glasgow (b), n.d.).

3.9.2 International setting (i): An-Najah National University, Nablus, occupied Palestinian territories

'The historical background of Palestine is an important frame of reference for understanding contemporary educational issues because the roots of many current educational issues can be traced through successive layers or strata of colonial experiences going back to the Ottoman period in the 19th century and have existed since then on different levels of magnitude and significance' (Abu-Saad and Champagne, 2006: pp.1035-1036).

Palestine, or as it is now known the occupied Palestinian territories, was ruled by the Ottoman Empire from 1516 to 1917 and then by Britain 1917-1948 and from 1948-1966 most of Palestine was under occupation from the newly formed state of Israel, with Jordan taking control of what is now the West Bank and Gaza Strip (Abu-Saad and Champagne, 2006). After the 1967 'six day war' where Israeli forces occupied the West Bank and Gaza Strip, the UN Security Council demanded that these areas be returned to the Palestinians. What has followed has been decades of conflict, war and atrocity which have resulted in the West Bank and Gaza Strip becoming a political pawn between the state of Israel (backed by the USA) and the occupied Palestinian territories.

The turbulent history of the occupied Palestinian territories has resulted in significant struggle for the Palestinian people and provision of and access to higher education has proved difficult. Financial barriers currently prevent Palestinian students with the required skills and motivation from attending higher education programs. These inequities in access to higher education in the occupied Palestinian territory are reinforced by the conflict situation, increasing poverty and overwhelming unemployment (UNESCO, 2010). However, 'despite the difficult economic and political conditions prevailing in the Palestinian territories particularly since the Intifadas [conflicts], impressive results have been achieved in HE… [however] because it is relatively new and [because of] the difficulties it faces due to the occupation, Palestinian HE is struggling to exist. However, its recency has made it … ready to embrace change. It is this fact which explains its relative dynamism even in the face of adversity' (Al Subu', 2009: p.2).

My data collection was conducted at An-Najah National University situated in Nablus in the West Bank which has a population of around 125,000 (Wikitravel, 2013). An-Najah National University was established in 1978 and currently is the largest of the thirteen Universities in the West Bank. An-Najah is funded by both donations and government funding from the Palestinian Authority. The language of instruction at An-Najah is Arabic and it has over 800 professors and educates over 20,000 students across its four campuses and is home to nineteen faculties (An-Najah National University, 2013).

3.9.3 International setting (ii): Hawler Medical University, Erbil, Kurdistan, Iraq

The city of Erbil is in the Kurdistan region of northern Iraq and has a population estimated at 1,471,053 (USA AID Iraq, 2012). Kurdistan has had periods of autonomous and semi-autonomous rule dating back more the one hundred years. In Kurdistan most people speak Kurdish, with Arabic and English also being widely spoken. In 1970, the Baghdad Government gave the Kurdish language official status and granted Kurdistan domestic autonomy (New Internationalist, 2005). However, there has been much political and social unrest in the region and Kurdistan has witnessed huge upheaval including atrocities carried out by Saddam Hussein with the use of chemical warfare during the Iran-Iraq war 1980-88 (New Internationalist, 2005). Kurdistan prides itself on having a unique identity and culture which separates it from the rest of Iraq.

In Kurdistan there is a mixture of both private and public universities; these vary significantly in reputation with the private universities the least desirable as many students gain entry and subsequent qualification through payment alone. Hawler Medical University in the city of Erbil in Kurdistan, was established in 2005.The University has five colleges (Medicine, Dentistry, Pharmacy, Health Sciences and Nursing), four of which originally belonged to Salahaddin University in Erbil (Hawler Medical University, 2013). The overall aim of establishment of Hawler Medical University was to improve the medical education in the region as well as to establish better management of the four colleges. The language of instruction for Hawler is English and the University is governed by the Ministry of Higher Education and Scientific Affairs of the Kurdistan Regional Government in Erbil (Hawler Medical University, 2013).

3.9.4 International setting (iii): The University of Cape Coast, Ghana

Teferra and Altbach (2004: p.21) claim that higher education is a ‘key force for the modernisation and the development of Africa’. They discuss the many challenges which African universities currently face such as finance, access and the legacy of colonisation. Africa currently has 54 countries and only 300 universities (Teferra and Altbach: 2004, p.22) which makes this continent the least educationally developed in the world. Africa lays claim to one of the oldest

universities in the world, Al-Azhar University in Egypt which still operates using ancient Islamic traditions. However due to extensive colonisation, most universities in Africa now operate under a Western model. Currently in Ghana only 3% of the eligible age group are actually enrolled in university which is reflective of the crisis in post-secondary education across the country (Teferra and Altbach, 2004, p.26).

Ghana is on the West Coast of Africa, it is a developing country with an estimated population of 21,832,963, a life expectancy age of 57.9 years and a poverty rate of 44.8% (New Internationalist, 2005). Ghana was inhabited by the Dutch and Portuguese from the 15th century who traded on its wealth of gold resources. Ghana, previously named the 'Gold Coast', proved to be a major trading hub for European merchants. The Ghanaian coast was also the point of departure for many of the Africans who were enslaved and sent to the Americas at the height of the tobacco, cotton and sugar slave trade. In 1896, the northern and coastal regions of Ghana were colonised by the British (the central region remained in the hands of the Ashantis). Coastal and northern Ghana remained under British rule until Ghana gained full independence in 1957.

The area of Cape Coast in Ghana (where my research was conducted) has a population of 169,894 (City Population, 2012). The University of Cape Coast Ghana was originally a University College and was established in 1962. In 1971, the College attained the status of a full and independent University, to provide much needed teacher training. The University has grown significantly and now boasts eight faculties (Arts, Education, Social Sciences, Agriculture, Biological Sciences, Physical Sciences, Business, and Medical Sciences). The University has a total student population of over 35,922: 14,815 regular undergraduate students, 2,146 sandwich students and 18,018 distance learning students (University of Cape Coast, 2013).

3.9.5 Sample: Who were the participants?

In keeping with case study methodology, I selected participants using a combination of purposeful, opportunistic and snowball sampling. Purposeful sampling is when the researcher selects individuals and sites for study on purpose because they can specifically inform an understanding of the research problem and central phenomenon in the study (Creswell, 2007). Purposive sampling demands that the researcher think critically about the parameters of the population they are studying and choose carefully (Silverman, 2013). I considered that purposive sampling better suited this research than for example random sampling, because I wanted to identify specific 'individuals, groups and settings' where active learning was 'most likely to occur' (Denzin and Lincoln, 1994: p.202).

At the University of Glasgow, I selected the lecturers purposefully via contacts I have with staff and fellow students, and particularly targeting some staff who had received institutional 'Teaching Excellence Awards'. I purposefully did not distinguish between university teachers and university lecturers. I am aware that in certain institutions such as the University of Glasgow, teachers and lecturers fulfil different roles and remits. However, for the purpose of this research into active learning I did not feel it was necessary to make a distinction because both university teachers and university lecturers have teaching commitments.

I asked the lecturers I interviewed to recommend two or more students from their cohort whom I could interview as part of a focus group. This is a method called 'snowballing' or 'chain referral' sampling which is widely used in qualitative sociological research (Biernacki and Waldorf, 1981). This method yields a study sample through referrals made among people who share or know of others who possess some characteristics that are of interest to the researcher (Biernacki and Waldorf, 1981).

In qualitative research the design needs to remain sufficiently open and flexible to permit exploration of whatever the phenomenon under study offers for inquiry (Lincoln and Guba, 1985). When I travelled to the occupied Palestinian territories, Iraq and Ghana, this was not originally for the purpose of my research; therefore, when I decided to gather data during these visits, I had to

be quite opportunistic in my data gathering approach. Opportunistic sampling involves the researcher following new leads and taking advantage of the unexpected (Creswell, 2007), as Patton (1990) suggests it is taking advantage of whatever unfolds as it unfolds. In the occupied Palestinian territories, I was directed to a lecturer of geography who had a particular interest in active learning and was a very prominent member of staff with an overtly political background. In Iraq, I interviewed one medical science lecturer and observed another lecturer give a lecture on dentistry (both were participants on the British Council DelPHE Iraq student-centred learning academic development programme on which I was teaching). In Ghana I was directed to several different teachers across the arts and social sciences. In all the international settings, I was unable to set up any focus groups with students. On reflection, I believe this was because I was reluctant to burden my already very accommodating contacts at the university by asking them to organise these groups for me within tight time schedules. This was one of the drawbacks of collecting data within opportunistic visits that had been organised for other purposes. This was disappointing and the lack of international students' opinions gave me less scope to analyse active learning from the learners' perspective.

The table below (Table 3) outlines the specific details of the participants of this research:

Table 3: Participants and locations

Location	Participants					
	Lecturers				Students	
	Semi-structured Interviews		Observations		Focus groups (3-6 students)	
	Course	Total	Course	Total	Course	Total
University of Glasgow	Adult Education (Spanish), Veterinary Medicine, Dentistry, Physics, Urban Planning, English Literature, Classics, Archaeology, Biology	9	Adult Education (Spanish), Veterinary Medicine, Dentistry, Latin, Archaeology, English Literature (x2), Biology, Physics	9	Adult Education (Spanish), Physics, Biology	3/1*
An-Najah National University, Nablus, occupied Palestinian territories	Geography	1	-	0	-	0
Hawler Medical University, Erbil, Iraq	Medical Science	1	Dentistry	1	-	0
University of Cape Coast, Ghana	Music, Film and TV Studies	2	Music, English, Sociology Film and TV Studies	4	-	0
Total		13		14		3/1*
* Student studying Latin was interviewed individually as she could not make it to any of my focus groups)						

3.10 Research Stages

At the beginning of this project I planned how I intended the research project process to proceed, but as with all projects of this size and scope, it did not follow a linear pattern. When dealing with human participants, it may even be suggested that to imagine the research following a linear structure would be extremely difficult. Investigating human interaction or a social construct such as active learning is inherently a fluid process involving constant reflection and praxis. Below I present a table (Table 4) which outlines the stages of this project:

Table 4: Research Stages

From	To	Research Activity
September 2009	August 2010	• Literature searches • Formulating methodology and research questions • Constructing interview, focus group questions and observation schedule • Applied for ethical approval from the University of Glasgow.
October 2010	-	• Granted ethical approval for data collection UK and International settings
November 2010	March 2011	• Interviews and observations conducted at the University of Glasgow
May 2011	-	• Review of interview questions in preparation for international data collection • Interview conducted in the occupied Palestinian territories
September 2011	-	• Presented workshop at the Researching, Advancing and Inspiring Student Engagement (RAISE) conference in Nottingham to explore a question that was emerging from my data collection which was 'do you have to be active to be actively learning?' • Interview and observation carried out in Iraq.
October 2011	-	• Observations and interviews carried out in Ghana
November 2011	February 2012	• Coded interview and observation data using NVivo.
March 2012	June 2012	• Writing up the findings section of the thesis
July 2012	Aug 2012	• Wrote up the discussion section of the thesis.
September 2012	December 2012	• Re-worked and re ordered the literature review and then decided to combine the findings and discussion sections.
January 2013	July 2013	• Worked on bringing everything together for a first draft of the thesis.
August 2013	December 2013	• Worked on revisions of the first draft and prepared a second full draft.
January 2013	March 2014	• Worked on a final draft of the thesis for final submission.

3.11 Challenges of data collection

I was able to collect data from my three chosen international institutions because either the medium of learning and teaching was English or in the case of the occupied Palestinian territories, the lecturer spoke English. However, there were specific challenges I faced in other situations such as; the unfamiliarity of

the institution, some language barriers, participants being unfamiliar with some of the education terminology I used and some cultural barriers. For example, in Iraq the co-ordinator of the teaching project I was working on (an Iraqi male) wanted to be present during the interview between the female lecturer and me. I had to justify several times why this would not be necessary or helpful.

At the University of Glasgow, all my data collection took place during the working day and usually within the University buildings. However, in the occupied Palestinian territories I interviewed a lecturer at 11.30 pm in a busy restaurant in downtown Nablus. After I got over this initial change in setting, I was able to relax a bit more and I realised that I would have to be flexible and adaptable when it came to interviewing international participants.

3.12 My role as the researcher

Alvesson and Skoldberg (2000) suggest that adopting a self-reflective stance is important when using a critical theory framework in research. My reflection on this research process is as important to me as the findings. I came to this project with a clear idea of what I thought I would find. My initial proposal was to ask if active learning produced more successful and engaged learners; however, I soon realised this was not a question easily answered by a yes or no answer. The term itself 'active learning' is inconsistently defined in current literature, therefore to research this concept, I had to first understand what people meant by it.

Choosing to research in other disciplines outside my own realm of experience (i.e. arts and social science) filled me with both trepidation and excitement. My experiences of undertaking observations in the University of Glasgow's Dental Hospital and Veterinary Medical School forced me to go into settings which I was not familiar with.

My decision to include an international element for this research came from my desire to investigate cultural differences in the understanding and practice of active learning in the context higher education. I am extremely glad I decided to do this as I feel new perspectives on active learning were opened up for discussion which were specific to those contexts and this will be presented later on in the thesis.

One issue that I reflected on whilst conducting my research overseas was the issue of privilege. I was more than aware of my preferential treatment when I was in the occupied Palestinian territories, Iraq and Ghana. Being a white, well-educated Western female did undoubtedly give me more access to senior staff than possibly a home research student would have. For example, in Nablus I was invited to the Principal's office at An-Najah National University and given generous amounts of time and attention. I am, and always will be, extremely uncomfortable when I believe I am treated preferentially because I am white and Western.

Coming from a social constructionist and relativist standpoint, I am aware that this research is subjective because I, the researcher, have created it and I am part of it and cannot be separated from it. I may have even changed the situation I was observing simply by just being there. The researcher's values are inherent and I would be naïve to think that I did not come with bias and pre-conceived ideas about what active learning is. I realised that as I observed a class I may have interpreted something completely differently from the reality experienced by the teacher and the students.

3.13 Data Analysis

Creswell (2007: p151) argues that often data analysis is not something which can be bought 'off the shelf' but rather that it is something which a researcher must 'custom build' in order to have a good fit. Creswell also argues that it remains difficult to find the perfect predetermined data analysis tool because the researcher has a vast array of choices. For the purpose of this research, I used case study methodology, interpretivism and critical theory to frame the analysis of the data for specific themes, to aggregate the information collected into large clusters of ideas and provide details that support these themes (Creswell, 2007). I also tried to establish patterns and look for correspondence between themes (Stake, 1995).

Using NVivo software, I attempted to code the data freely, however the coding was influenced by literature and previous research in the area of active learning and therefore some of the codes and subsequent themes were 'a priori' (Creswell, 2007). Strauss (1987) and Maxwell (1996) explain 'a priori' themes as

themes which originate from definitions found in literature, from researchers' values, theoretical orientations, and personal experiences.

In my data analysis I used, as much as possible, an inductive approach which generates new concepts and allows for the development of emergent themes. Inductive analysis allows a goal-free approach with more freedom in the analysis process and to explore effects and understandings of a specific concept and not just planned or anticipated ones (Thomas, 2006). Furthermore, Williams (2008) suggests that emergent themes are a basic building block of inductive approaches to qualitative social science research and are derived from the life worlds of research participants through the process of coding. Williams (2008) also mentions that emergent themes correspond with social constructionist paradigms because qualitative researchers believe that emergent themes are part of the process that lead to generalisible theories of human society. However, aiming for generalisible theories is not the intention of this project as case study methodology instead highlights the importance of in-depth and contextualised findings for enhancing our understandings.

Throughout the analysis process I shared my emerging themes with both my research supervisors. The first step was to present the NVivo 'nodes' which I had created during the coding of my observation notes and the transcripts of my interviews and focus groups. In the early stages of data coding I created 41 NVivo nodes (see Table 5).

Table 5: Original 41 nodes coded in NVivo

1	Active learning and active teaching	15	Cultural Influences	29	Destroying the fourth wall
2	Clinician versus academic	16	Collaboration	30	Commodity
3	Politics	17	Constraints	31	Edutainment
4	Power	18	Discipline specific	32	Freedom in learning
5	What makes a good teacher	19	How students learn	33	Lectures
6	What students expect	20	Motivation	34	Passive
7	Relationship	21	Preaching	35	Observer's involvement
8	Reflecting	22	Responsibility	36	Risk
9	Storytelling	23	Teaching as performance	37	The unexpected
10	Freedom in teaching	24	Threshold Concepts	38	Tradition
11	Transferable Skills	25	Transformational	39	What is active learning
12	Tutorials	26	What does active learning look like	40	Philosophy
13	Purpose of a university education	27	What makes a good learning experience	41	Routine
14	Class set-up	28	What teachers would like to do		

The nodes were a mixture of ‘a priori’ themes (themes present in other literature or answers to direct questions asked in my interviews or included in the observation schedule) and emergent themes (ideas, thoughts and opinions which were expressed by participants or myself which emerged organically and were not pre-determined). I also allowed for some ‘In vivo’ themes (Creswell, 2007) to emerge where a participant responds in a way which was particularly unique I then used their explicit words to develop a new node of that name e.g. ‘destroying the fourth wall’.

After lengthy conversations with my supervisors, my first attempt at making sense of these nodes led me to write each of the 41 nodes onto post-it notes and then place them into groups according to their commonalities. I work best when I can visualise what I am working on therefore I decided to use my dining room table as a space to set out these categories (See: Fig. 2, Fig.3, Fig. 4).

Figure 2: Analysis Visual - 41 nodes on post-its

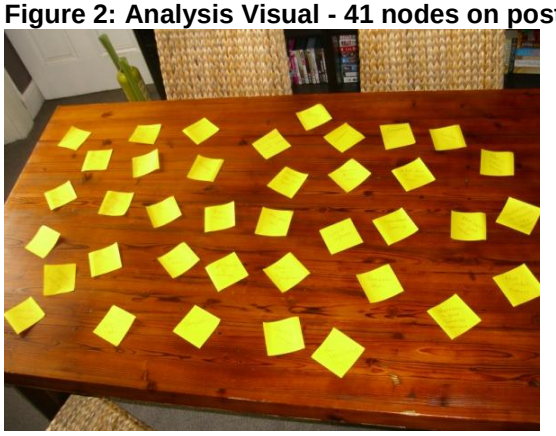


Figure 3: Analysis Visual - 11 categories

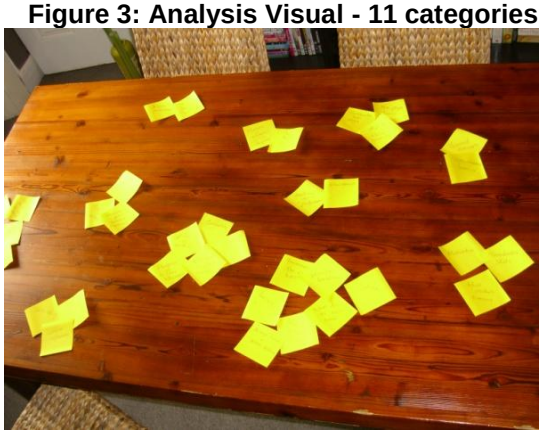
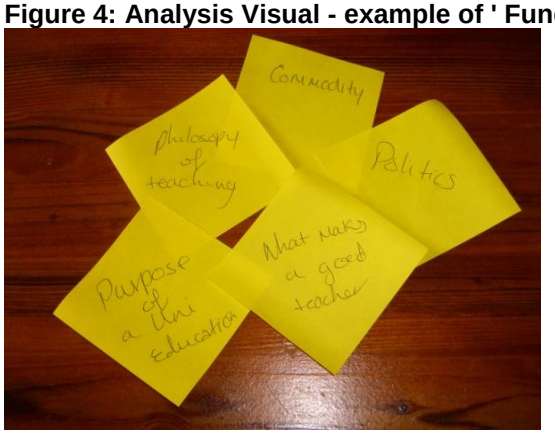


Figure 4: Analysis Visual - example of ' Fundamental Issues' category



The table below is a more thorough presentation of which nodes went into each category (see Table 6).

Table 6: Original 11 categories

Category		Nodes attributed to that category
1	What hinders progressive learning and teaching?	17,36,10,14,38,4,32,41,28
2	The shared space between teacher and student	7, 22, 27
3	Fundamental issues	30, 40, 3, 27, 13
4	Transformational aspects of learning and teaching	24, 25
5	Highlighting discipline specific issues	18, 2
6	Performance and entertainment in teaching	31, 23
7	Cultural issues	15, 21, 9
8	Dealing with the unexpected during data collection	37, 35
9	Learning in higher education	8, 16, 19
10	Student experiences and outcomes	11, 20, 6
11	Investigating active learning and current teaching methods and methodologies	39, 34, 1, 26, 33, 29

These 11 categories were very loosely formed and were inconsistent in terms of size and relevance to the research. Deciding on how to finally present the findings was not an easy process and I made many changes and re-interpretations of the findings and the discussion sections of this thesis. Naïvely, I believed that as I had adopted an interpretivist and critical approach to this research I should ensure that every theme or issue which was discussed by participants or which I had observed in my observations should be included in the final findings and discussion section. As an interpretivist researcher with a social constructionist epistemology, I was keen not to edit or manipulate the responses of participants; I wanted the research to be an accurate reflection of the conversations I had with teaching staff and students. However, on reflection, to try to cover every issue which was discussed or identified during the data collection would have led to the data being under-analysed and unfocused.

A joint decision was made between my supervisors and myself not to embark on rigorous cross-checking or multiple coding of data. Cross-checking or multiple coding is a way of ensuring that data which has been coded is reliable, this is normally done during supervision sessions or by independent researchers (Barbour, 2001). Although Barbour (2001) argues that cross-checking has the capacity to furnish the research with alternative interpretations, I purposely did not share the transcripts or observation notes with my supervisors. I was not working to a tight analysis framework therefore I wanted the freedom to explore the data in an inductive way. Furthermore, Mauthner et al. (1998) suggest that researchers' original interpretations may shift when they revisit previously collected data.

Although I was aware of the possibility of triangulating the data from my observations, interviews and focus groups, I decided against it. Triangulation relies on the notion of a 'fixed point, or superior explanation, against which other interpretations can be measured' (Barbour, 2001: p.1117). Qualitative research is usually carried out from a relativist perspective, which acknowledges the existence of multiple views of equal validity (Popay et al., 1998). The aim of my research was not to present an account of competing perspectives; it was to present the similarities and contradictions around participants' understandings of active learning and use them to provide further insight.

Using the 11 categories (see Table 6) as an initial structure, I began to write up my findings and discussion chapters. I reviewed the 11 categories in order to decide: a) which could be used to directly answer the main and secondary research questions, b) which were emergent themes which did not fit neatly into the research question heading but were still relevant and c) which had to be discarded as offering no significant contribution to the research.

Table 7 outlines how the initial 11 categories were re-ordered and arranged into either chapter 4 (answering the 3 research questions), chapter 5 (emergent themes) and chapter 6 (personal reflections).

Table 7: 11 Categories as presented within final structure of findings and discussion chapters

Initial Category		Place within final structure
1	What hinders progressive learning and teaching?	5.1, 5.2, 5.3
2	The shared space between teacher and student	4.4
3	Fundamental issues	4.3, 4.4, 5.1
4	Transformational aspects of learning and teaching	4.4
5	Highlighting discipline specific issues	5.5
6	Performance and entertainment in teaching	4.2
7	Cultural issues	5.6
8	Dealing with the unexpected during data collection	6.2, 6.3
9	Learning in higher education	4.3
10	Student experiences and outcomes	5.4
11	Investigating active learning and current teaching methods and methodologies	4.2, 4.3

Chapter 4 – Findings and discussion Part 1: Addressing the three research questions

4.1 Introduction to findings and discussion

This chapter and the next will combine the findings and discussion elements of this research. Both chapters will bring together data from observations, interviews and focus groups from the University of Glasgow case study and the three international settings. There were significant similarities in the themes which emerged from the University of Glasgow case study and the international settings so being able to refer to data from Glasgow and the international settings simultaneously allowed for a better overall picture of how active learning in higher education is perceived and practised.

Chapter four will address the main research question 'What is active learning in higher education?' and the two sub questions 'Is there a relationship between good teaching and active learning?' and 'How do students' and teachers' beliefs about the purpose of a university education influence the practice of active learning?' Chapter five will present the themes which emerged unexpectedly from the data. These did not fit neatly under the research question headings; however, they do provide an informative and divergent account of active learning which adds to an overall understanding of the concept. Chapter six presents my own personal reflections on being involved in this research project. In the summary in chapter seven, I offer two new conceptualisations of active learning in higher education which have been informed by both the literature and the data collected for this research.

In order to help frame the following sections, it is helpful to have a reminder of the definitions and characteristics of active learning as were outlined in chapter two. The working definition of active learning which was used at the beginning of the thesis was taken from Prince (2004: p.223) who said 'active learning can be defined as any instructional method that engages students in the learning process. In short, active learning requires students to do meaningful learning activities and think about what they are doing'. The table below re-presents the synthesis of active learning from the end of the literature review (see Table 2),

this has been done to help form a basis from which the findings of this research can be explored.

Table 2 re-presented

Characteristics of active learning from the active learning literature		Characteristics of active learning informed by other literature	
Characteristic	**Reference**	**Characteristic**	**Reference**
Student responsibility for learning	Berry (2008), Denicolo et al. (1992) and Rogers and Freiberg (1994)	Deep approach to learning	Marton and Säljö (1976)
Collaboration between students and students and being involved in co-operative learning	Rogers and Freiberg (1994)	Power and political implications	Freire (2000), hooks (1994), Mann (2008), Sharan (2010)
Critical thinking	Berry (2008), Bonwell and Eison (1991), Denicolo et al. (1992) and Rogers and Freiberg (1994)	Modification of lectures and incorporation of activities	Bligh (2000), Exley (2010) Gibbs and Jenkins (1992), Johnstone and Penner (1984), Percival (1976) Meltzer and Manivannan (2002), Revel and Wainwright (2009)
Learning and developing skills	Bonwell and Eison (1991) and Denicolo et al.(1992)	Socially constructed	Dewey quoted in Fairfield (2011), Vygotsky (1978)
Engaging students in the learning process	Bonwell and Eison (1991), Prince (2004)	Student-centred	O'Neill and McMahon (2005)
Students are engaged in activities (projects, role-plays, discussions etc.)	Berry (2008), Bonwell and Eison (1991), Chickering and Gamson (1987) and Prince (2004)	Strong relationship between student and teacher	Brookfield (1995), Freire (2000), Gibbs and Jenkins (1992), hooks (1994), Rogers (1993)

4.2 Main Research Question: What is active learning in the context of higher education?

This question was formed in response to a lack of any apparent definition of active learning in the literature. Varying terminology has been used to describe active learning in previous literature, but there is no agreed definition. Furthermore there appeared to be no real critique of active learning. My own understanding and belief about active learning was challenged throughout this project. Initially I considered active learning a radical departure from 'traditional' 'didactic' forms of teaching, including lecturing. This initial understanding is apparent in some of my observation notes, which, with hindsight, I can see were slightly naïve. The notes reflect how I felt at the time of the observation so they have been included, though discussion and critique of these observation notes have since been added.

This section will present themes which emerged from the data which will help address and answer the main research question, what is active learning in the context of higher education? This section will discuss themes of passive learning, active teaching, what active learning looks like, teaching as a performance and the role of lectures and tutorials in active learning. At the end of this section there will be a summary of active learning as informed by the research data.

4.2.1 Active learning and passive learning

For my interviewees, active learning was quite difficult to explain. Some lecturers in particular suggested that active learning was the opposite of passive learning and that passive learning was about students being given a set of facts rather than students exploring a subject for themselves. It was also suggested that passive learning was about pouring information into students' minds and it was the students'job to absorb it. Participants, especially lecturers, offered examples of what active learning was not, rather than being able to clearly define what it is. However, one lecturer said that he thought all learning is active and that there was no such thing as passive learning; he seemed to believe that learning is inherently active, therefore placing the word 'active' before 'learning' makes no improvement. This is an important point because the lecturer believes there is no such thing as passive learning; this is a departure

from what most of the academic literature and the other participants said about active learning.

Furthermore, I was confronted by an idea that active learning may not look all that active. The word ‘active’ often has connotations of movement, activity and discussion. However, as I noted in one observation:

> *'In terms of active learning, the question still remains, can students be actively learning in these traditionally run classes? There certainly wasn’t any movement around the room or ‘visible’ active learning which is not to say active learning wasn’t happening in a more subtle/internal way.'* (Observer notes, Latin class, Glasgow)

There were participants who suggested that active learning is indeed learning which is demonstrated physically. One group of students said that active learning is doing different things and not sitting listening. They also said it was not learning by rote; it is about getting up off your seat and working with different people. Similarly one lecturer asked:*” ... but active, does that also mean leaping up and down?”* (Interview with archaeology lecturer, Glasgow). It is clear that some participants believe that physical activity is an inherent part of active learning.

In the focus group with physics students from the University of Glasgow, they equated active learning with certain structured types of learning, like problem-based learning, which they believed was more prevalent in Medicine. For them the only ‘real’ active learning they undertook was when they were working and studying in labs, again indicating that they related the term to some type of activity. The veterinary medicine lecturer also felt that active learning occurred when students were physically active whilst on rotation in an animal hospital or farm setting. It may be that what veterinary students perceive to be the ‘active’ part of active learning is actually a form of experiential learning when they are physically engaged in hands-on activities.

However, active (in the sense of being active physically) could be quite a restrictive and limiting interpretation of active learning . If active learning is to be defined in this way then how can it be possible to be actively learning in a

lecture? In Nablus, the geography lecturer stated that he did not use active learning because he taught using mainly classical lecturing. He qualified this by saying that he thought sometimes classical lecturing was needed because educators have to present basic ideas and basic knowledge. His statement suggests that for him, active learning means not learning in a lecture environment. However, not all lectures are conducted in the same way; some lecturers lecture in a didactic way, some choose to incorporate activities, teacher-student or peer discussion into their lectures. As the geography lecturer argued, sometimes there is a need for the didactic lecture format because it is an efficient way of communicating information when it is needed.

Some of the academic disciplines and classes I observed appeared to align themselves more comfortably with the notion that active learning is something physical. In one of my observations I noted:

> *'In terms of active learning, I believe that the students were 'active' in so much that they were moving around, talking and handling the skulls.'* (Observer notes biology lab, Glasgow)

Furthermore, the Iraqi biology lecturer I interviewed had a similar understanding; she said that for her active learning means active participation and that the teacher must be active as well by questioning the students and incorporating quizzes to test students' knowledge.

However, there were participants who said students can be actively learning without there being any physical demonstration. One lecturer at the University of Glasgow gave a philosophical definition of active learning which suggests that the 'active' part of active learning is whatever the student chooses to do with the knowledge they develop. She said *"[Active learning is] learning that is shaped and given life to by the learner" (*Interview with urban planning lecturer, Glasgow). This lecturer seems to be saying that active learning is more of a philosophical approach to learning and teaching or a methodology of teaching rather than the tools, methods or exercises a teacher employs in the classroom. Furthermore, biology students in one focus group said that active learning did not just happen in labs, that they had been in lectures and thought there had been active learning going on because for them active learning was about

engaging your brain and being inspired to find out more about what you had heard in previous days. Similarly, one lecturer said:

"…whereas [with] active learning you are much more protaganistic, you're engaged in lots of different ways potentially, you're engaged mentally. Your mind is engaged, [you're] not just trying to absorb information; it's thinking, it's processing, it's analysing it, so in a sense active learning could just be going on in your head." (Interview with Spanish and adult education lecturer, Glasgow)

This takes the term active learning in a new direction from what the majority of previous research suggests because it proposes that active learning is a cognitive process rather than a physical one. This aligns with what O'Neill and McMahon (2005: p.29) have written about student-centred learning: that there is a 'cognitive view which supports the idea that the activity of learning is computed in the head, or as often described 'in the mind'.'

There seemed to be some cross-over between active learning and what could be described as student-centred learning. Consider my observation of a physics class:

'This was unlike any of my other observations to date. The lecturer called the class a 'meeting' rather than a tutorial which did change the focus for me slightly I feel. I understand that some curriculum areas lend themselves more neatly to student-centred and/or active learning, and this class was one of them. However, I cannot take away the fact that the entire session, and indeed the entire group project, was put together by the students (five of them in total). The purpose of the class was for the students to chart their progress so far with their physics-based group film making project and also to receive help and guidance from the lecturer. The students have chosen to make a film about a current piece of research which is being conducted by the physics dept. at the University of Glasgow…the students really seemed in control of what they were doing.' (Observer notes, physics tutorial, Glasgow)

In another observation I was initially impressed with the 'student-centredness' of what was going on but then became slightly disappointed that it was short lived:

'I am unsure of whether or not the students were supposed to interact, but to me it seemed quite dry and 'staged'. I was expecting the student led tutorial to be more student led. Why couldn't the presenters pose the discussion questions and lead the analysis and feedback? Am I expecting too much? Should they be capable of this at honours level?' (Observer notes, English literature tutorial, Glasgow)

By asking lecturers if I could observe their classes where they thought I may see some active learning, I had in fact set myself up (in some instances) to be disappointed. My expectations of what I would find during my observations were possibly not realistic. It is difficult to articulate exactly what I was expecting to see, but I did expect there to be more physical or visible active learning. As mentioned by Prince (2004), my pre-existing ideas about active learning led me to believe that it is a way of learning and teaching which is quite radically removed from didactic teaching. At the beginning of the observation of the English literature tutorial, it initially looked like the students had responsibility for running part of the class. Berry (2008) and Denicolo et al. (1992) all suggest that one of the main characteristics of active learning in higher education is that students have responsibility over what and how they learn. Of course, this may be aspirational as much of what goes on in the university class room is pre-determined by curriculum and other factors. Nespor (1987) suggests that teachers may think active/progressive/student-centred learning is a utopian alternative to the reality of the classroom; it is not reality, it does not exist.

4.2.2 Active learning and active teaching

As a concept, active teaching is not widely written about in academic literature; however, I decided to address this directly in my data collection to see if it could help answer or define active learning. During my interviews, there were some people who agreed that the two concepts (active learning and active teaching) can stand alone and be thought of and addressed separately. The archaeology lecturer said that he believed there could be such a thing as passive teaching and that this would be when a teacher just regurgitated what they had done on previous occasions. He also thought he was an active teacher because he did not read from scripts when he lectured. The English literature lecturer

discussed ‘facilitation’ as a way of actively teaching, saying that active teaching was the inverse of passive teaching.

Several of the interviewees believed that active learning could not exist without active teaching. The veterinary medicine lecturer believed that a teacher had to actively teach in order for students to actively learn. In a similar vein the classics lecturer at Glasgow said:

“… surely both of them must be because if my active teaching falls on deaf ears then there is no active learning. So you have to be a student receptive to my teaching and of course I have to be receptive to their needs, so yes active learning and active teaching reciprocates.” (Interview with classics lecturer, Glasgow)

The International Studies Association Compendium Project (n.d.) states that ‘active teaching involves the use of instructional techniques designed for meaningful student engagement in the discovery of knowledge’. In a way this is what these lecturers appear to be saying, however it could also be true that using instructional techniques to promote student engagement in the classroom is what teaching is all about and this is not necessarily exclusive to active teaching.

Some participants said that a learner does not have to be specifically taught by someone to learn and that active teaching did not necessarily promote or inspire active learning. The English literature lecturer commented that students can, if given the right kind of tools, actively learn or receive the benefit from actively learning even if they are in a seminar where teaching is quite traditional. She went on to say that her understanding of active learning was that it is about skills that are developed and can be applied in different contexts. The physics lecturer, the archaeology lecturer and the urban planning lecturer all believed that people can actively learn without being taught actively or even, as the archaeology lecturer said, if the teaching is done in a passive way. Conversely however, the physics lecturer was adamant that there can be no teaching without learning. The Spanish and adult education lecturer at Glasgow did not actually believe active teaching existed at all as a standalone concept; he said that active teaching was really just about promoting active learning.

What can be deduced from the responses in this section is that for some practitioners, active learning does and should incorporate active teaching. However, in common with the term active learning, active teaching is not clearly defined in the literature, therefore understandings and conceptions will undoubtedly vary. For example, what may be active teaching for one teacher may simply be the provision of meaningless learning activities which have no real substance or underlying principles.

4.2.3 What does active learning look like?

The literature which tries to define active learning ranges from that which suggests it is the incorporation of discussion groups and activities into the classrooms (Baker and Clark, 2010; Bonwell and Eison, 1991; Dillenbourg, 1999 and Prince, 2004) to those who argue it is about students building, testing and repairing their mental model of what is being learned, students taking responsibility for their learning and the development of critical thinking (Denicolo et al., 1992; Berry, 2008 and Michael and Modell, 2003). I asked the interviewees what they thought active learning might look like, there were different interpretations and responses varied from one teacher to another and from one discipline to another.

My observation of an archaeology class at Glasgow explains how the lecturer used his skills to alter the traditional lecture format . He encouraged his students to participate and constructed the lecture around what the students already knew:

'The lecturer takes the student responses to his first question 'what is a castle' and types them up onto the PowerPoint. Student responses (military fortress, power status symbol etc.) are then displayed on the screen. The PowerPoint is blank at the start and the students are the ones who are setting the agenda and what they want to find out. The lecturer finds out student knowledge first before he begins his teaching. The PowerPoint was not already produced; the students are part of the production and construction of the knowledge…The lecturer returns to the original Power Point slide which was made up using the students' responses to the first question 'what is a castle?'. He asks the students if they want to add or change anything. They readily want to add their

new knowledge and expand on original concepts.' (Observer notes, archaeology lecture, Glasgow)

Furthermore, during another of my observations I noted that the lecturer was also starting from what the students knew, therefore incorporating their prior existing knowledge into his lesson plan:

'The lecturer tried to draw the teaching points and the answers out from the students themselves. He used the students' initial thoughts and contributions as a 12 point lesson plan, going through each point and addressing it/discussing it with the students … I really liked how the lecturer structured the lesson around the answers that the students gave at the beginning of the lesson. He used their 12 points to make a list of issues they would discuss regarding which aspects may affect the treatment of an orthodontics patient (i.e. age, cooperation, income, gum disease etc.). This seemed a very student-centred approach.' (Observer notes in dentistry lecture, Iraq)

To a certain extent, these two examples echo some of the principles which guide critical pedagogy; placing the learner's experiences and prior knowledge at the centre. From my reflections in these observations, active learning seemed to be happening and the students appeared to be engaged in the learning, however I was aware that the voices I heard the most were the lecturers'.

During my interviews, some lecturers also used teaching in a lecture as a context to describe what active learning looked like. The physics lecturer said that using EVS, doing demonstrations or using quizzes during a lecture which stimulates student participation is what active learning looks like. The dentistry lecturer also said something similar to this. Her example of what active learning looks like referred to her posing questions during lectures and encouraging students to talk to the person sitting next to them. With reference to lectures, Bligh (2000) suggests that changing direction or pace in a lecture can help stimulate the learners. Bligh talks about factors which affect students' attention, arguing that including breaks or introducing a variety of audio or visual stimuli will increase student attention and then hopefully create a better learning environment. These responses from the physics and dentistry lecturers mostly focused on how active learning is implemented in a lecture environment, which is discussed in

length in some of the earlier literature on active learning (Adler, 1982; Bonwell and Eison, 1991; Ericksen, 1984; Chickering and Gamson, 1987). Furthermore it appears that both these lecturers seem to concentrate on what *they* are doing to promote active learning and their focus is on *their* actions and not so much the students'.

Moving away from describing what active learning looks like in a lecture, other participants gave more general responses such as active learning is *"… quite chaotic and noisy"* (Interview with biology lecturer, Glasgow). Two lecturers from Glasgow suggested that active learning is a social thing and it can be seen when students are working together and bonding with each other. In particular one said it *"would involve discussion. You are taking the information and engaging with it, you test your theories your reactions with other people"*. (Interview with Spanish and adult education lecturer, Glasgow).

In archaeology, active learning was equated with the outdoor experiences which make up the field work part of the curriculum. The lecturer spoke about students being able to make connections between what they learn in the classroom and how that relates to the outside or 'real' world. Parallels might be drawn between what the archaeology lecturer said about field work and what some of the other lecturers said about the clinical and practical side of vocational degrees and what I saw during my observations. Field work, clinical work and practical work link theory to practice for students in a very overt way and therefore may look more like active learning. In the dentistry observation, the gap between theory and practice appeared to be narrower:

> *'This observation highlighted the ease with which the vocational subjects lend themselves to the general conception of active learning. Theory is very much put into practice and the students can make the transition from one to the other in just one morning session.'* (Observer notes, dentistry, Glasgow)

In my observation of an open studies Spanish class, active learning looked like: the use of humour, participation, discussion, interaction and activities:

' … The teacher, along with a guest tutor, acted out humorous/satirical drama sketch based on the life of 'Guy Fawkes II' introducing the past tense which was aided by the displaying of vocabulary on the board ... Teacher and guest tutor (staying in character) interacted with the students and asked their advice about the fictional dilemmas they were facing … This class was very 'active' in the sense that there was a lot of moving around, changing learning partners and interaction between the students and the tutor. Students seemed quite used to the interaction and the pace of the class.' (Observer notes in Spanish class, Glasgow)

The observation of this class felt different from some of the other classes I observed because it was held in the evening and was part of the open programme for adults at the University of Glasgow. Having spoken to the lecturer, I found out that most of the learners came to the class after working in their various jobs during the day. The lecturer said he felt it was his duty to always provide a stimulating and active class, especially when the learners had done a full day's work beforehand. This observation was really fun and I felt very engaged with what was going on. There was very little didactic teaching; almost everything that went on solicited student participation.

4.2.3.1 Responsibility

Active learning is often viewed as an approach which relinquishes teacher control and encourages learners to take more responsibility over their learning. Berry (2008) and Denicolo et al.(1992) suggest that students taking responsibility for their learning is one of the guiding principles of active learning and some of the data from this project supports this claim. For example, the urban planning lecturer said active learning happens when students take responsibility for their learning, when they ask their own questions and figure out ways in which to answer those questions. Another lecturer said something similar: *"… by and large I could have gone in there [*the classroom*], written a question on the board, and walked out for two hours and they wouldn't stop for a break. People are engaged and active learners"*. (Interview with Spanish and adult education lecturer, Glasgow). The idea that active learning happens when students take responsibility for their learning was also mentioned in a student focus group: *" I think you have to actively learn and that's when you take ownership and take*

*on further reading. Active learning hurts; no pain no gain. The effort and the time needed, effort from yourself." (*Student focus group, physics students, Glasgow). In the observation of the physics class I noted that the students were in control of their learning and they more or less ran the session:

> *'The entire session was led and facilitated by the students. They discussed their impending group project … The session was facilitated by a member of the student group who acted as the chairperson. The lecturer's role was very interesting to me, he really did not say much until 11.30 which was half way through the session. I was amazed at this! The students had so much to say that there was little need for him to intervene … At the very end of the session the lecturer negotiated with students when they will present their film. I felt this was very democratic and highlighted that the students truly have ownership over what they are doing. The session gave the impression that there was real autonomy on the part of the learners.'* (Observer notes, physics tutorial, Glasgow)

Drawing on the literature which discusses assessment in higher education (Entwistle, 1997; Entwistle et al., 2003; Entwistle and Ramsden, 1983; Kain 2003) and the constructive alignment of learning and assessment(Biggs, 1999; Biggs and Tang 2011) it may be possible to suggest that what I witnessed in the physics tutorial was perfect alignment. The physics lecturer seemed to have overcome what Kain (2003: p. 104) suggested was the theoretical implications and difficulty in aligning 'classroom issues, theories of composition, and teaching strategies'.

Learner autonomy appears to be one of the defining characteristics of active learning; however, are students really free to learn how they wish? In the end they are all assessed in the same way. The biology students said that having freedom was important but students ultimately have to *"fit in to that pattern. We are still learning to be marked …you still feel you are learning to get that number on the paper rather than for your own gain. It may change later on, playing the game"* (Student focus group, biology students, Glasgow). 'Playing the game', which was also mentioned by a lecturer in my interviews, suggests that these students are aware of the rules of engagement within university, they know that ultimately they will be graded and these grades will either lead to a

degree or not. This response from the biology students possibly gives a new insight to the term 'freedom in learning'; how can students have freedom in their learning if in the end they are all examined using the same set of criteria?

The classics student said that *"freedom is a very tricky concept, you think you want it, but you don't actually. I think it's good that you are guided and have rules otherwise you would be lost"* (Interview with classics student, Glasgow).

There seems to be a balance between freedom and guidance which this student feels is delicate; if students are not given appropriate support and guidance then they may easily falter. The film and TV studies lecturer said that he liked to give his students *"freedom to explore"* (Interview with film and TV studies lecturer, Ghana) in what they choose to study in assignments because otherwise they would be restricted. However he also said that it is his job to provide appropriate help and support.

I observed in the biology lab that some more informed/capable students chose to work on their own:

> *'Some students chose to discuss the skulls with other students around them and approached the lesson as a group problem-solving exercise, others worked on their own. The demonstrators acknowledged this and told me that those with previous biology experience (i.e. Advanced Highers) often prefer to work through the tasks at their own pace… I was unsure about this and wondered if their expertise could have been put to better use by assisting those with less knowledge? (Peer assisted learning?)'* (Observer notes, biology lab, Glasgow)

The lecturers and graduate teaching assistants left the more able students to work on their own and I did think there seemed to be a divide in the class by the 'can do-ers' and the 'need helpers'. This gap might have been narrowed a little if all the students were involved in peer group activities with the more knowledgeable taking a leading role. But it is also true that by giving learners choice over how they learn, it opens up the possibility that they will choose not to work together.

Participants mentioned that there may be tension over who is actually responsible for learning in an active learning environment, especially if the roles of teacher and student are changed or challenged. The physics lecturer said that it is the responsibility of the learner to ensure they are learning well:

"My view is that there may be some distant cultural influence. The responsibility is on the learner ... because in [my] culture learning is good no matter what you are learning ... a big part of it is a selfish act because you are gaining is betterment of yourself so what you are actually doing is developing yourself so why should anyone else take responsibility?" (Interview with physics lecturer, Glasgow)

However, during our interview, the same lecturer said that although it is the student's responsibility to learn well, it is the teacher's responsibility to provide the best environment and conditions for the students to learn. He said that a teacher's remit is about *"adding value, adding entertainment and making that process slightly more enticing, those are the areas that I think is my responsibility. It's our responsibility to make them [students] be engaged and do something productive"* (Interview with physics lecturer, Glasgow). Both of these responses are from the same lecturer, demonstrating that the issue of 'responsibility for learning' is not straightforward. There appears to be a sharing of responsibility with the teacher providing the optimum conditions for learning and the student taking full advantage of what is provided.

The archaeology lecturer also believed that lecturers must provide help and guidance, but he said *" … how far along the line do you have to relinquish responsibility? ... sometimes this can be frustrating ... I think you do have to draw a line and say 'guys it's your responsibility'"*(Interview with archaeology lecturer, Glasgow). The biology students had a very interesting insight relating to this split between learner responsibility and teacher responsibility. At first they said that learning at university is the student's responsibility, however, the same students also mentioned that the lecturer has a huge influence on what level of responsibility or ownership a student takes over their own learning. They said that if a lecturer is enthusiastic and passionate, then learning does not feel like an obligation and they feel like they are choosing to take the reins of their own learning. From what students and the lecturers said, arguably there should

be shared responsibility from both parties because if lecturers do not assume any real responsibility or show that they are committed to what they are doing, then this will have a knock-on effect on how the students proceed with their learning.

In summary, active learning can mean several things; students taking responsibility for their learning, incorporation of student participation in lectures and students having choice and freedom over some aspects of their learning. Freedom in learning may, at best, be a utopian ideal of education and of course it all depends on what is meant by freedom; freedom to choose subjects and modules, freedom to learn independently or as part of a group, or freedom to choose how and what is learnt. The film and TV studies lecturer commented that his understanding of 'learner freedom' was students being given a choice in what film they chose to focus on for their assignment. This is very different from the kind of 'learner freedom' I observed in the physics class. Although comments from some participants agreed with the principle put forward by Berry (2008) and Denicolo et al. (1992) that learner responsibility, freedom and ownership are important characteristics of active learning, it is also the case that participants' conceptions of what 'learner freedom' varied significantly.

4.2.4 Teaching as performance and Edutainment

Teaching is viewed by some as an art form, something of a performance given by teachers who take their place on the 'stage'. King (1993: p.30) proposed that if teaching is to progress then teachers must become a 'guide on the side rather than a sage on the stage'. King refers to teaching as facilitating learning and advocates a constructivist approach in which students are encouraged to use their existing knowledge and prior experience to help construct new understandings. Likening teaching to 'giving a performance' was not an area I set out to address explicitly in my data collection, however it was commented on by a few of the interviewees and I also commented on it during my observations. In some of my observations, the teacher was a larger than life character who dominated the room, whereas in other instances the lecturer was quieter and more introverted in their approach.

Some lecturers said that teaching is a performance where they must assume another identity or at least become a magnified version of their own self:

"I do want the students to have a good time in the class and I want them to enjoy what they are doing. Teaching is a bit of a performance you are a performer … it's a bit of an art form sometimes you get it right and sometimes you get it wrong." (Interview with Spanish and adult education lecturer, Glasgow)

This Spanish and adult education lecturer appears to equate students enjoying their learning with the notion of lecturers giving a good performance. Moreover, the biology lecturer I interviewed suggested that entertainment in the classroom is not necessarily a bad thing and can inspire learners:

"I think if you have a lecturer who is an entertainer and who can suck you in you are more likely to remember things because you are interested in it. You can be interested in a subject and you can have someone who has the personality of drying paint and suddenly you think 'I have just wasted an hour of my life'. Or you could have somebody who is an inspiration and you think wow! I had no idea that you could do that I want to go and find out more." (Interview with biology lecturer, Glasgow)

It could be suggested that if a teacher has a charismatic personality, then somehow they are a better teacher. Buskist et al. (2002) developed a 'Teacher Behaviours Checklist' (TBC) which consisted of twenty eight qualities and behaviours of 'master teachers', two of which were the qualities of creativity and enthusiasm. Although creativity and enthusiasm do not equate to giving a performance, a teacher's personality and charisma may influence how good a teacher they are perceived to be.

Contrary to this however, Marsh and Ware's (1982) study (known as the Dr Fox effect) suggested that if a learner is intrinsically motivated then the teacher's behaviour and performance has little bearing on their ability to learn successfully. One student focus group pointed out that they thought teacher performance does not always equate to the best learning:

"I don't think it has to be fun because I think people enjoy things so much themselves that they will want to do it anyway, but it [the learning and teaching] has to be varied because people learn in different ways…if you are really interested in something you might be enjoying yourself without leaping about." (Student focus group, Spanish students, Glasgow)

These Spanish students seem to believe that enjoying learning is really up to them and 'enjoyment' cannot be forced upon them by the teacher. Innovative teaching may be rendered useless unless the students are intrinsically motivated to engage. One student in the Spanish students' focus group mentioned 'leaping about' which was also a phrase used by the archaeology lecturer I interviewed in Glasgow. This phrase is very revealing because it appears that, for some, active learning is perceived to be frivolous or it could signify the distrust of activities which devalue the content of the learning.

Within Setzer and Monke's (2001) theory of edutainment, the 'edu' part of edutainment may always be a constant e.g. the substance and quality of what is taught never changes, however the 'tainment' part of edutainment could take the form of the teacher's individual performance or the activities and methods that they choose in the attempt to maximise interest without sacrificing substance. The theory of edutainment suggests that there can sometimes be a merging of what some may consider more serious learning with fun and enjoyable aspects. Whether or not 'real' learning and 'fun' learning are mutually exclusive is debatable; however, for the purpose of this research investigating active learning, edutainment is a useful term to explore. Active learning could be perceived as a strand of edutainment because it is often portrayed as a diluted form of 'real' learning in that emphasis is put on the lecturer's performance and the learning activities rather than the substance and content of a given subject. Having read the edutainment literature I kept this in mind during my observations.

I noted in my observation of a sociology lecture in Ghana:

'This was a two hour lecture and the teacher looked exhausted when he finished. It felt like a performance, his voice had to be very loud and

commanding to fill the large lecture hall … He gave a lot of personal opinions about corruption and the way in which the Ghanaian government deals with it. It felt very much like his 'show'.' (Observer notes, sociology lecture, Ghana)

In my opinion, the lecturer in the sociology lecture in Ghana performed a monologue for most of the session. Although this may not be uncommon in most traditional lecturing environments, there did seem to be an air of drama which was in the room. The lecturer seemed to use grandiose statements about moral corruption in Africa to get the students' attention and his tone of voice rose and fell in a very dramatic fashion.

There were many examples from my research data that suggested teaching was considered to be a performance. In helping define active learning, it is important to consider where the focus of the teaching rests. For example if the teacher concentrates on giving a good performance, the learners may feel they are spectators rather than participants in their learning. However, the performance aspect of teaching may be enjoyable for both teacher and learner and a good performance may result in deep or active learning on the part of the student.

4.2.5 The role of active learning in lectures and tutorials

Lammers and Murphy (2002) argue that lectures are the mainstay of university education, however, if we take the view of many of my research participants, active learning is considered to be based principally on physical activity and exercises therefore, as suggested by Exley (2010), didactic lecture methods of teaching are outdated and do not allow for students to be actively learning. However, not all lectures are run the same way or follow the same format, and it is true that not all lecturers lecture the same way. This means that it is entirely dependent on what the interpretation of active learning is as to whether or not a student can be actively learning in a lecture. I was keen in my interviews and observations to explore what actually goes on in a lecture and ask if active learning can be planned for, or where it can take place at all in a lecture environment.

Millis (2012) suggests that lectures can prove masterful when offered by inspiring teachers who are also gifted orators who can stimulate students. One lecturer suggested that lecture style teaching is enjoyable for those lecturers who embrace the performance element of teaching. She said *"I prefer lecturers because I'm a bit of a show off and you can quite easily be quite creative with a lecture."* (Interview with English literature lecturer, Glasgow). Cousin (2008) said that lectures are a form of identity in that they provide 'roles' for teachers and students to play. Cousin also mentions that lectures delineate a space, a space which some view as 'sacred', but as a cautionary note, Bonwell and Eison (1991: p.53) argue that lecturers must be careful not to become 'self-enchanted' when lecturing which can lead to them being resistant to change.

The English literature lecturer also said that it can be more comfortable for lecturers to teach in a lecture style format because they remain in control. The notion of control may allude to the idea that as a lecturer she feels she is in control of her environment. Teachers are very much in control (or at least appear to be on the surface) during a lecture. There may be a link between the idea of control in a traditional didactic teaching environment with the possible loss of control in a more student-centred, student participatory or active learning environment. However, it could also be countered that students hold just as much control in a traditional didactic lecture environment, demonstrated through actions such as not turning up, looking bored etc.

Consistent with Brookfield (1995), participants said that lectures are extremely useful because they provide a good starting point and framework for learning. The classics lecturer was keen to point out that "*When I started I thought I have to say everything in a lecture. Now I see a lecture as a starting point … a start for the student to go on … "* (Interview with classics lecturer, Glasgow). Also, the geography lecturer said that lectures are a good way to present basic ideas and basic knowledge. MacKenzie et al.'s (2003) research proved that even within a progressive medical curriculum using a problem-based learning approach, lectures were still important because they provide an organisational framework so that students can check they are 'on track'. Furthermore, both students and lecturers said that lectures should have their place in higher education because they are effective when faced with teaching large numbers of students. However, it was also said by one participant that lectures should only be used

when they add value and they should not be the default or fall back method of teaching.

I asked my participants directly whether or not active learning could exist in a lecture environment. One lecturer believed that active learning was not possible in a lecture environment, he said *"I think sitting in a lecture learning the theory, I wouldn't describe that as active learning; that is passive, being spoon feed information."* (Interview with veterinary medicine lecturer, Glasgow). This lecturer seems to assume that lecturing equates with learning key disciplinary theories and concepts. Of course this may be true for his or other vocational degree courses; however this is not true for all lectures.

Some participants disagreed with the views of the veterinary medicine lecturer and said that it was possible to be actively learning in a lecture. The physics students said "*I have been in lectures where I thought there has been active learning … it doesn't have to be labs to be active learning."* (Student focus group, biology students, Glasgow). A lecturer discussed a situation where she encouraged a colleague to include some activities in his lectures, with some positive results:

"… a colleague of mine … was landed with some teaching, not only teaching that he didn't want; it was unpopular teaching. He came to me and said 'I don't know what to do, I looked at the lecture notes and they're rubbish. The students are unengaged they are not interested; it's just like talking to a brick wall'. [So I said] 'You need to do little quizzes at the beginning and the end, ask them questions and get them to answer the questions ... he came back to me and said 'I did the quizzes, the students are waiting to go into the lecture and putting their hands up when the quiz is on and even through the lecture they will stop me to ask questions, they are all fighting to answer the questions and they are getting to know me and I'm getting to know them'. So at the end of the year he got an email from the course co-ordinator [saying] … 'we don't often get this and we don't often tell individual lecturers, but your lectures were highlighted at the staff student committee, your lecture was highlighted as being the best lecture of the whole course and we would like to thank you for that'. Now he has been made the course co-ordinator." (Interview with biology lecturer, Glasgow)

It is apparent that this biology lecturer believes that these small changes, additions and activities made a huge improvement to the quality of the teaching in the lectures which concurs with research which suggests that incorporating quizzes and activities significantly improves student experiences in lectures (Bligh, 2000; Bonwell and Eison, 1991; Exley, 2010; Gibbs and Jenkins, 1992 and Penner, 1984). Incorporating activities and quizzes into lectures could be seen as a form of active learning because students appear to be actively engaged rather than sitting listening, however, this is only one interpretation of active learning and ultimately it is still the lecturer who holds the control and the responsibility for what happens. Further to this, there was discussion that it is the responsibility of the teacher to make the lecture 'active':

"I'm hoping that my students are learning through lectures and I obviously know there are limitations of active learning that you can expect to happen if you were to stand up and talk all the way through. So in that case I think it's our responsibility to make the material exciting and relevant …" (Interview with physics lecturer, Glasgow*)*

However, the urban planning lecturer said that sometimes students can just sit and listen and simultaneously actively learn. She *said " I do think there is a role for the lecturer… who comes in and says 'this is how it is' … I think we are mistaken about our understanding of learning and teaching of content if we don't marry them up together".* She also said that she *thought "… there is something very active about being engaged and listening to somebody."* (Interview with urban planning lecturer, Glasgow). From what this and other lecturers said, it could be interpreted that in a traditional, even didactic, lecture then there is still scope for the students to be actively learning. Again, this would depend on the interpretation of what active learning is and how it manifests itself; is it the physical demonstration of learning or is it a cognitive process which is more difficult to identify? Lectures are more in keeping with the idea of active learning where students are cognitively active, but small groups are more in keeping with ideas of active learning where there is physical movement. So it could be concluded that active learning does not equate to any one particular teaching method (e.g. lecture, seminar), but rather to the higher level aims and thinking of teachers and students.

Whilst considering the influence of lecture style teaching on the definition and exploration of active learning, it is equally important to consider the influence of smaller scale teaching methods such as tutorial or labs. I noted in an observation that labs and tutorials are usually a more interactive environment for learning, however this is dependent on the direction given by the teacher:

'The students seemed comfortable with their lab partners as they keep the same ones throughout this course. The students and the staff interacted quite freely and a lot of humour was used, especially by the lecturer. One of the demonstrators seemed to prefer to talk 'at' the students and his use of questioning was quite limited. He didn't really give the students a chance to identify what the features of the skull were; instead he went around the room giving mini 'lectures'.' (Observer notes, biology lab, Glasgow)

The activities and the 'interactive-ness' I observed in this lab are possibly examples of some of the characteristics of active learning expressed by Bonwell and Eison (1991), Berry (2008). They identified that for active learning to happen students must be involved in more than listening, there must be less emphasis placed on transmitting information and more on developing students' skills, and the teacher should be organising learning activities. However, there was still an element of teacher-centred-ness about this lab. This may have hindered some of the other characteristics of active learning from being developed such as student responsibility for learning, students being involved in higher-order thinking (analysis, synthesis and evaluation) and emphasis being placed on students' exploration of their own attitudes and values (Bonwell and Eison, 1991).

Whilst conducting observations for data collection and my subsequent reflections, there appeared to be a paradox emerging. Lectures are often perceived to be the antithesis of active learning, evidence of which is found in the literature (Bonwell and Eison, 1991; Exley, 2010 and Gibbs and Jenkins, 1992) and the responses of my participants. However, as I discovered myself lectures (and everything that lectures symbolise) can sometimes create a safe and possibly more comfortable learning environment for some students:

'I was struck by how much more comfortable I felt in the lecture as compared to the tutorial. The lecture theatre was very traditional with wooden benches and desks and a place for the lecturer to stand at the front which made me (the observer) feel much more at ease. I think this is because from the layout of the room, I knew that the responsibility for the learning and teaching would most probably lay firmly in the hands of the lecturer ... I was surprised at my reaction and felt I had somehow betrayed my own beliefs about good learning and teaching and active learning. I wonder if the students feel the same 'comfortableness' about lectures and come in knowing that they can just drink in all the knowledge without being put on the spot or having to articulate their thoughts?. Furthermore, I reflected on the lecture as a means of learning and teaching and I wonder if it is really possible to break the mould of teacher talks - students listen? How would students react if the 'comfortableness' of the lecture was shattered and instead, lecturers were coming amongst the students and asking them to participate? The lecture offers relative safety for the student and indeed the lecturer because everyone knows their place and the role they must play. I have come to understand that the lecture theatre symbolises something quite powerful in education and it would take quite a bit of courage to change how it is used.' (Observer notes, English literature lecture, Glasgow)

In another class I noted there were apparent expectations from both the teacher and the students:

'The lecture theatre definitely played its part in the one way communication. The set-up of the room did not lend itself to interaction. Possibly the students did view this class as a 'lecture' and did not think it appropriate to interact with the lecturer. There is a certain expectation when a class is held in a lecture theatre which leads me to think of semiotics i.e. what a lecture theatre symbolises. Students may feel that the boundaries are clearly defined in a lecture theatre and the responsibility for the learning rests with the lecturer. Lecture theatres provide 'protection' for students both literally (i.e. the benches and desks to hide behind) and metaphorically (not having to participate or contribute). Maybe the class could be more interactive if the room was

different or the furniture was adaptable.' (Observer notes, Latin class, Glasgow)

In reading these observation notes, there appears to be a paradox emerging as to whether or not lectures are themselves a barrier to active learning. Lecturing can be viewed in several ways: as an effective method of introducing a subject where active learning can happen if students are engaged in what they are listening to, or as a passive way of learning where lecturers give monologues and students have no ownership over what is going on and are expected to absorb information for regurgitation at exam time.

It is likely that lecturing will remain a staple method of learning and teaching in higher education in the near future, therefore this presents conceptual difficulties in understanding if active learning (which is usually seen as a shift away from didactic teaching methods) can happen in such an environment. Lecturers who continue to teach in a didactic way may take a long time to change, furthermore the worthiness of changing those didactic traditions must be considered carefully because for some, lectures are a useful and effective means of educating students, especially when a cohort can be as large as 200-600 students. It may be possible that any teaching environment, whether a lecture, lab, tutorial or otherwise, possesses the ability to become student-centred or active. Often it is more about how the teacher views that environment (e.g. the lecture theatre) rather than the actual environment itself which stops active or progressive teaching methods. What may be needed is a redefinition or a reinterpretation of active learning which does not use lecturing as its antithesis.

Freirean theory suggests that education is about 'dialogue', or a dialogue of knowledges, and that as long as that is taking place, the format (i.e. lecture or small group teaching) might not be so important. In some active learning or student-centred learning situations the teacher may not be involved in or directing the learning. Alternatively, in other active learning or student-centred learning situations, students might only be engaging with concepts/knowledge which have been pre-determined by the teacher beforehand so the discussion is student-centred, on the one hand, but the teacher maintains control over the agenda.

4.2.6 Summary of main research question - What is active learning in the context of higher education?

This research aims to go beyond the semantics of the term ‘active learning’ and highlight the real-life processes and practices currently taking place in higher education under the ‘active learning’ banner. While previous definitions of the term have been useful, they have tended to be broad, slightly naïve and open to interpretation: this research aims to provide a more critically informed and empirically researched definition. While teachers’ and students’ definitions of active learning lacked clarity, it was important for this research to identify areas of consensus. Active learning is often naïvely understood as a universal panacea for learning and teaching; arguably, instead of ‘active’ it could just as easily be called ‘good’ learning, for example.

This section has explored the concept and the practice of active learning. The data from this research has provided the perceptions of participants as well as my own perceptions about active learning informed by my observations. The findings from this particular section (4.2) are at odds with some of the literature (Berry, 2008; Bonwell and Eison, 1991; Prince, 2004) which seeks to present and explain active learning as a simple, straightforward idea without any real depth or thorough critique. This research suggests that presenting active learning in an overly simplistic way, such as the false dichotomy of active and passive learning as opposite ends on a spectrum, is unhelpful because it pigeon-holes active learning as learning which can only ever be physically enacted. This section has highlighted that active learning is complex and does not simply translate into students being engaged in ‘activities’. Active learning can take many forms; in some respects it does mean students are engaged in activities, however active learning may also occur in more subtle ways e.g. students taking responsibility for their learning or thinking about it in a deeper way. Active learning occurs in different learning environments, it is not simply a case of lectures bad, small groups good. Active learning is not necessarily bound by the teaching space but depends on the motivation of the teachers and students and how they go about engaging with the learning and with each other.

From the active learning literature and the findings in this section of the research, as an approach to learning and teaching, active learning can be understood on several different levels (see Fig.5).

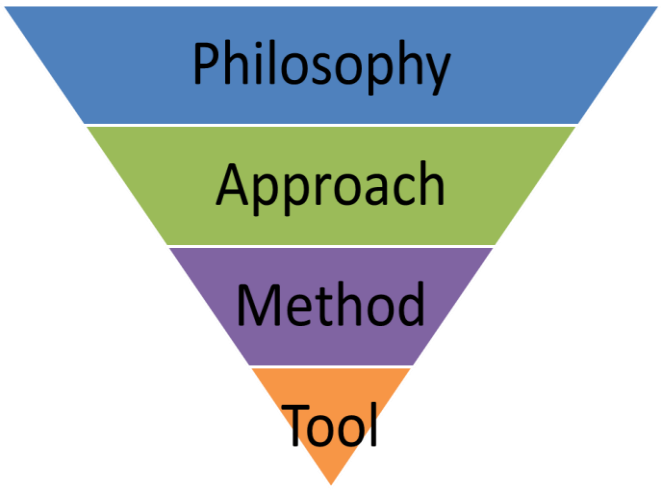


Figure 5: Conceptions of active learning

1) A philosophy of learning and teaching - one lecturer said: *"[Active learning is] learning that is shaped and given life to by the learner."* (Interview with urban planning lecturer, Glasgow). Here, active learning relates to the learner and what he/she chooses to do, rather than the teacher. This also implies that active learning is not bound by context or physical location and it contests the notion that active learning cannot happen in a lecture theatre.

2) An approach to learning and teaching - co-operative learning, student-centred learning and problem-based learning are all approaches which could come under the umbrella of active learning. These kinds of approaches give some ownership of learning over to students, but ultimately it is the teacher who remains in control and sets the agenda.

3) A method of learning and teaching - lectures, seminars and laboratories are all methods of teaching in which active learning could happen, as could experiential learning which is prevalent in vocational degree programmes. Teachers may design their teaching and deliver it in such a

way that it includes student participation, interaction and other characteristics of active learning.

4) A tool for learning and teaching - active learning could be demonstrated by the use of Electronic Voting Systems, discussion groups and quizzes. These tools are usually quite versatile and can be implemented with large or small classes in a variety of contexts (although EVS is usually used in lectures).

4.3 Sub Research Question One: Is there a relationship between good teaching and active learning?

Investigating if there is a relationship between active learning and good teaching, and what the impact of this is, may help in defining active learning. Many of the characteristics which define active learning can also be found in the literature which defines good teaching; however, this does not mean that there is necessarily a direct relationship between the two. The data from this project suggests that there is a relationship between active learning and good teaching because often when participants were discussing active learning, they used an example of 'good teaching' or a 'good learning experience' to describe and qualify it. This section will discuss whether being involved in learning which is perceived to be 'active' means that students have had a good learning experience. This section will then explore the data in relation to the question 'what is good teaching?' Finally this section will explore if active learning is perceived to be risky and if 'good' teachers are the ones who take such risks in their teaching practice.

4.3.1 Does active learning mean that students have a good learning experience?

Active learning appears to be multi-layered and complex, however what has become apparent is that it is usually described in a positive way and in a way which is underpinned by a 'good experience'. I asked lecturers and students what they thought made a good learning experience at university because I wanted to know from their experience what made some learning experiences better than others. One lecturer spoke of her pleasure watching students learn in a *"hands on"* way and said that for her that was the most enjoyable part of

teaching, even likening this experience to *"voyeurism"* (Interview with biology lecturer, Glasgow). In one of the focus groups, students said the 'hands on' / practical elements were the most enjoyable parts of learning:

"I think actually being able to do stuff in the lab ... The more you do practical things the better the experience ... I really enjoy the labs bit at university, it's great because you are starting to get the whole picture ..." (Student focus group, biology students, Glasgow)

The same students also said that one of the most enjoyable experiences for them was when their lecturer did something unexpected:

"Our chemistry teacher on thermodynamics was really active and to show how energy changes states he ran against the wall and jumped against it and said this is how kinetic energy transfers to static. " (Student focus group, biology students, Glasgow)

By citing both of these examples (hands on experience of a lab and a good lecturer's performance) as good learning experiences, for these biology students a good learning experience is not particular to any one context or teaching method. Whilst this demonstrates that a 'good learning experience' is a highly subjective term, it also suggests that good teaching may be a difficult term to define because in both of the examples above the role the teacher plays is very different. In a lab the teacher may be the 'guide on the side' whereas the lecturer described by the students seemed to be very much the 'sage on the stage' (King, 1993).

The physics students in their focus group were keen to point out that for them, a good learning experience was about being able to do things independently. They felt that although in certain situations having lecturers' guidance was necessary and helpful, it was the opportunity to do things by themselves which ultimately made them feel more accomplished as learners. The same students spoke about the influence of the lecturer and how he or she can make or break a good learning experience. They spoke about the infectious enthusiasm that lecturers can bring to their teaching and that if lecturers are practitioners in their

discipline, they can really help students relate to what they are learning and see how concepts can be applied in everyday life.

Most interpretations of active learning centre on the understanding that it provides opportunities for good learning experiences. Nespor (1987) argues that teachers may think active or progressive forms of learning and teaching are a utopian alternative to what goes on in reality in the university classroom, though from the responses of the participants in this study, it is clear that this is not the case. Most examples given about good learning experiences (in the context of active learning) were not out of the ordinary or in any way utopian. A good learning experience may or may not include 'activities' as such, but it must have a set of guiding principles which give the learning integrity. It could be said that good learning, or more specifically active learning, is not so much about what teachers or students do, rather it is about why they do it.

4.3.2 What is good teaching?

Active learning is often associated with good teaching in that teachers who promote active, progressive or student-centred types of learning are often perceived to be better quality teachers. There have been several research studies carried out to try and determine what the characteristics are of a good teacher in the context of higher education (Devlin and Samarawickrena, 2010; Lammers et al., 2010; Marsh and Ware, 1982). Devlin and Samarawickrena (2010) outline what they believe are the five characteristics of effective teachers in higher education, these characteristics include teachers who encourage students to be independent learners, and teachers who adopt teaching approaches which motivate and inspire students to learn. It may be possible to draw some comparisons between good teaching and active learning because they share certain characteristics, however this does not prove that there is relationship between the two. To find out if there is an influential relationship between active learning and good teaching, I first had to identify what being a good teacher meant to my research participants.

The responses to the question ‘what makes a good teacher?’ were very varied as were some of my observations of what I thought constituted good teaching. The human biology lecturer in Iraq believed that good teaching rested on being a

good communicator which, for her, meant that she stopped her teaching every now and then and asked students if they understood what she was saying. In certain instances this may be all that is required for students to engage in dialogue with the teacher; however, this is dependent upon the type of student present and the atmosphere/teaching environment as to whether simply stopping and asking students if they understand would instigate any real dialogue. The geography lecturer in Nablus also mentioned that communication is one of the characteristics of good teaching, he said that teachers should have a *"healthy communication channel with the students"* and that for him, communication should be more than a two way exchange; it should be a *"multiple way"* which is "*between students and teachers"* (Interview with geography lecturer, Nablus). The 'multiple' communication suggests that this lecturer believes that the students are able to teach and learn from each other just as much as they can from him. This aligns with Freire's (2000) belief that learning should be based on dialogue and that students bring their own knowledge and expertise.

In one observation, I noted that the lecturer seemed to win students over by using humour and personal anecdotes to liven up the classroom situation:

> *'The lecturer did attempt to explain difficult language concepts … using his own analogies and he discussed, in a humorous way, how he overcame them when he was studying. The students seemed receptive to this.'* (Observer notes, Latin class, Glasgow)

In the follow up interview with the classics lecturer, he said he would categorise himself as an eccentric teacher and that he was *"unconventional, [someone] who does not find it enough or satisfactory to stay behind the podium and create the fourth wall as if the students are invisible. So I am quite eccentric in that I destroy the fourth wall."* (Interview with classics lecturer, Glasgow). This lecturer thought that being a little eccentric, quirky and unconventional are good traits for a teacher. Similarly, in one of the focus groups, the students mentioned that when teachers *"put a bit of humour in it … they make it easier for you [and] it makes it more interesting to be there…when they are not passionate you are just here to learn and there will be no fun in it so it has a knock on effect."* (Student focus group, biology, Glasgow). Humour (if

appropriate) has the ability to diffuse tension and create a less threatening atmosphere which in turn may help learning and teaching to flow or evolve more naturally. The use of humour may play a big part in making a teacher more accessible and the learning environment seem more relaxed and enjoyable. It may also make the divide between teacher and student less visible or vast because people are more at ease which could relate to the kind of atmosphere promoted by some forms of active, participatory or student-centred learning,

Gibbs (2012) and Revell and Wainwright (2009) suggest that interactive and collaborative learning are hallmarks of good teaching which significantly increase the effectiveness of learning. Interacting with students and being aware of group dynamics was suggested by one lecturer as characteristics of a good teacher. He spoke about being in tune with what is going on in the classroom and being aware that *"it's not just you in a darkened room [or] in a lecture in a pool of light on your own; you are in there with people as well"* (Interview with archaeology lecturer, Glasgow). He argued that knowing the processes which take place in that classroom makes someone a good teacher. The urban planning lecturer said that being a good teacher was more than having subject knowledge, it is about being a *" good classroom manager"* and being *"savvy and aware of the room set-up*" and she also suggested that if you are not aware of classroom dynamics and practical things then these *"can be your undoing"* (Interview with urban planning lecturer, Glasgow).

Subject knowledge was cited as a characteristic of a good teacher by both Buskist et al. (2002) and Devlin and Samarawickrema (2010) and this was confirmed by several of my research participants. In Ghana, the music education lecturer suggested that being knowledgeable extended beyond just knowing something, it meant that the teacher has "*strategies for imparting information to the students"* (Interview with music education lecturer, Ghana). The veterinary medicine lecturer and the urban planning lecturer believed that the passion they have for their subject transfers to their teaching and this can inspire students' *"passion for knowledge"* (Interview with urban planning lecturer, Glasgow).

There has been much development in the area of 'teaching excellence' and 'teaching excellence awards' in higher education. In such awards, there has

been an attempt to characterise the qualities which constitute good teaching or 'teaching excellence'. Little et al. (2007) and Gunn and Fisk (2013) present a comprehensive review of teaching excellence in their reports and they provide evidence of the characteristics which have been used to underpin teaching excellence awards in higher education. These characteristics include inspiring and motivating students, promoting active and group learning, fostering student engagement and peer interaction (Gunn and Fisk, 2013) and encouraging students to develop intellectual knowledge and transferable skills (Little et al, 2007).

In response to the question 'what makes a good teacher?' several of the characteristics of teaching excellence outlined by Little et al. (2007) and Gunn and Fisk 2013) were mentioned by participants. The physics lecturer said *"The hallmark of a good higher education teacher is the ability to inspire the students to do more, to learn more, to dig deeper"* (Interview with physics lecturer, Glasgow). The classics lecturer and the archaeology lecturer both believed that having enthusiasm was an extremely important trait of a good teacher because students could see that the teacher thought what they were doing was worthwhile and this ultimately would encourage students to engage more with what they were learning. This was true in the response of the classics student I interviewed who said that a good teacher shows interest in the subject and is someone who is *"captivating"* (Interview with classics student, Glasgow).

In some instances, it was possible to see direct links between what constitutes good teaching and what constitutes active learning. For example, Denicolo et al. (1992) proposed that looking beyond the immediate frame of reference and towards future career and life was one of the guiding principles of active learning and this same notion emerged from some of the data. The group of physics students I interviewed said that lecturers can be inspiring when their research/work informs their practice in a meaningful and relevant way. They gave an example of guest lecturer who was able to make direct links between what he was teaching the students and his everyday work in a hospital setting. This connects not only with what Denicolo et al. (1992) suggest, but also with Bligh (2000) and Knowles (1980) who argued that students have a desire for relevance in their learning; relevant to the world around them and to their

future careers. This same notion was echoed by the geography lecturer in Nablus:

"A good teacher needs to know his field … very well, but if he or she does not understand the connections of that discipline within the structure of other disciplines, well ... for example, if you are an engineer or a chemist and you get focused on the discipline only that is good in itself, but to be a good teacher you need to be able to connect that discipline to the general structure of knowledge and also to how that knowledge can be applied." (Interview with geography lecturer, Nablus)

The responses from the physics students and the geography lecturer are very similar. The students clearly enjoy listening to a lecturer relate the content of what they are learning to real life situations. Similarly, the lecturer appears to value the importance of the connection of content to context.

Berry (2008), Bonwell and Eison (1991) and Denicolo et al. (1992) all suggested that critical thinking and student responsibility for learning are some of the main characteristics of an active learning approach to learning and teaching. These same characteristics were mentioned by lecturers and students as traits of good teaching. The urban planning lecturer talked about her desire to help students become *"critical practitioner[s]"* (Interview with urban planning lecturer, Glasgow). The physics students spoke about being encouraged to learn independently by one lecturer in particular and that for them this was a really positive experience. Similar to the physics students, the English literature lecturer believed that a good teacher is someone who inspires students to have confidence, self-belief and independence. She was also keen to point out to her students that it is their responsibility to participate and ask questions. She said:

"My aim in arts is not to give answers but to prompt questions …the key thing is prompting questions and getting people to think for themselves… by the time you get to higher education you are supposed to be teaching adults and I say that to my students 'we are all adults here' and the relationship changes … I can be quite open with my views; you can disagree, please disagree. I think having the confidence to say 'this is my position' and that everyone has a position." (Interview with English literature lecturer, Glasgow)

I observed that for one lecturer, it seemed to be her humanity, her flexibility and her ability to handle potentially difficult situations well which made her a good teacher:

'The text being discussed dealt with the theme of loss and tragedy all set to the backdrop of 9/11. One student in the tutorial group was from Manhattan and her father was a serving police officer at the World Trade Centre that day. Although the student herself said she was too young at the time to contemplate the enormity of the event, she nonetheless spoke eloquently about the impact it had on the USA. The lecturer handled this very well I thought, she did not dwell on the student's very personal account but used it to stimulate more discussion with the group as a whole. The lecturer did not know this student's history before this tutorial (the lecturer has since told me this) therefore, she had not foreseen this change in direction, however her incorporation of one student's real life experience seemed to really bring the discussion to life and also epitomised what I believe is good learning and teaching. The discussion became relevant, a bit controversial and thought-provoking for the students.' (Observer notes, English literature tutorial, Glasgow)

I was impressed by how this lecturer handled this situation. She reacted in what may be described in a 'human' way by acknowledging the students' very personal contribution to the discussion, engaging with it and then encouraging other students to reflect on what had been said. Buskist et al.(2002) suggest that some of the principles that make up their good teaching checklist, being approachable, personable and respectful are high on the list. Furthermore, hooks (1994) argues that appearing human is one of the greatest things an educator can do, as does Rogers (1993) who claims that care, trust, respect and transparency are all qualities which make a teacher great. During the observation there did seem to be a caring and supportive environment created by the lecturer, otherwise I do not think the student would have been prepared to share such personal details.

The theme of humanity was also evident in the response of the music education lecturer in Ghana. He discussed the *"emotional component of teaching"* and thought teachers should be people who are *"emotionally intelligent and should*

be able to deal with his emotions and be able to manage other people's emotions". He was keen to point out that:

*"When we have an interaction between two or more people there is a critical element of emotion and if the person does not have emotional intelligence then the relationship cannot exist. In the learning and teaching situation, there should be a mutual understanding of each other and the emotional component is so important." (*Interview with music education lecturer, Ghana).

The music education lecturer feels that being able to relate to students is vitally important. Interestingly, the dentistry lecturer said something quite similar when she discussed the need for her to be *"be patient and recognise what their [the students'] limitations are"* (Interview with dentistry lecturer, Glasgow). In her practice she is very experienced and accomplished in what she does, however the students are not so experienced and a task that may take her a few minutes to complete may take a student two hours to complete. Although this is frustrating, she said that she tries to be a good teacher by being patient and giving praise and encouragement when needed.

Brookfield (1995) argues that having humility is a one of the greatest assets a teacher can have and this seemed to be a key theme in the responses of participants to the question 'what makes a good teacher? Both teachers and students claimed that the mark of a good teacher is someone who is not afraid to admit when they do not know something. The biology lecturer mentioned that at the beginning of her teaching practice she never wanted students to know she might not know the answer however now she feels that it is *" liberating to say I don't know"* (Interview with biology lecturer, Glasgow). The physics students were also keen to point out that for them it was reassuring when the lecturer was brave enough to admit that they were unsure about things:

"I quite like the fact that my lecturer doesn't know everything and we work through to get the answer… It's almost intimidating when you get the answer from a lecturer … I like that he is clueless and he tries to solve problems in different ways and you learn from his experience … when you get a question in an exam that you don't know the answer to you can refer back to the way he approached it … we are learning things that they don't know and I love the fact

*that I know more than my teacher knows." (*Student focus group, physics students, Glasgow)

What the physics students say here can be linked to what Kleiman (2011) calls 'learning at the edge of chaos' where there is an element of risk and excitement in deviating from what is normally seen as the proper, well-worn and traditional model of teaching and learning . Kleiman proposes that learning in higher education is a complex adaptive system which must move away from static, linear predictability and towards a dynamic, non-linear approach. He argues that fostering creativity in both students and teachers involves them experiencing a state of disequilibrium; where norms no longer rule. The physics students thought that a good teacher does not always provide them with or indeed know the answer, demonstrates that they like when there is an element of uncertainty; this is what Kleiman would calling learning on the edge of chaos.

In terms of what makes a good teacher from a lecturer's perspective, one response from a participant stood out in particular. Although this same lecturer had mentioned previously that he thought the passion for his subject inspired his students and made him a good teacher, he was keen to point out he believed that ultimately people are born good teachers:

"I don't think you can become a good teacher, I think you already need to be a good teacher. I think the way that you teach is sort of inbred in you; it is already there." (Interview with veterinary medicine lecturer, Glasgow)

If people are born good teachers then it suggests that we need to ask why so much time and effort is invested in academic development and teacher education. Of course, some people are more comfortable talking to a large audience or enjoy the performance element of teaching, however, it would be a mistake if people were written off simply because they do not have 'innate' teaching ability. It could be argued that engaging in academic development enhances the teaching effectiveness of professionals regardless of their discipline. The veterinary lecturer's response is intriguing because it reveals that he does not see teaching as a set of skills which can be developed, but rather as an innate talent.

For one lecturer, being a good teacher meant that you have to *"value teaching"* and that you must *"want to be a good teacher"* (Interview with Spanish and adult education lecturer, Glasgow). This lecturer also commented that in the current climate in higher education, teaching is not as valued as research therefore there is often less focus on it. McFarlane (2004) states that if research becomes the main priority of the academic, he or she may not have as much time as needed to change or develop their curriculum. This could similarly apply to the development of active, progressive or student-centred learning because educators simply may not have the time to devote to enhancing their teaching practice.

This section has focused on good teaching in order to help investigate whether or not there is a relationship between good teaching and active learning. Good teaching has been described in several ways, in some instances it was a listing of characteristics of teachers themselves (e.g. passionate, knowledgeable) and in others it was teachers' behaviours and how those behaviours influenced students (e.g. ability to inspire, foster critical thinking skills).It is clear from the literature that good teaching and active learning share similar characteristics, however this is not a strong enough argument to prove that there is a relationship. Having looked closely at participant responses and my observer notes, it appears that there is a tenable interconnected relationship between the two because some of the data pertaining to active learning was framed by examples of good teaching and vice versa. For example, in section 4.2.3 my observation notes from archaeology in Glasgow and dentistry in Iraq suggested that there was good teaching occurring because both lecturers were actively constructing the lesson in real time based on the prior knowledge of the students' in the classroom. Furthermore, in section 4.3.2, the physics students explained that they thought that good teaching occurred when teachers transferred some of the responsibility of what happened in the classroom back to them. They seemed to be inspired when they were part of the construction of the learning. From the literature and the data in this research it is clear that active learning and good teaching share the same goal; providing students with the best opportunities to learn, therefore it is reasonable to suggest that there is a relationship.

4.3.1 Do good teachers take risks in their teaching practice?

hooks (1994) suggests that many educators are unwilling to take risks in their practice as do Hansen and Stephens (2000: p.43) who suggest that students have 'low tolerances for challenge' and that they, along with teaching staff, have become 'risk averse' in the classroom because of educational consumerism and an institutional focus on assessment . When investigating if there is a relationship between good teaching and active learning, it is useful to explore whether or not active learning is perceived as risky and if so are good teachers willing to take such risks. For active or student-centred learning to be effective, Hansen and Stephens recommend that teachers and students reassess the ethos and ethics of learning in higher education. Active learning is often associated with student interaction and participation therefore teachers inevitably have to relinquish some of their control over what happens in the classroom. Losing control may be perceived as a potential risk or barrier to implementing any active or student-centred learning practices in the classroom. I asked the lecturers I interviewed if they felt they had taken risks in their teaching and if so what the outcomes were (the theme of risk was also mentioned by some students in the focus groups). I also asked lecturers if they felt they had freedom to do what they wanted to do in their teaching.

Some of the lecturers gave me direct examples of risks they had taken in their teaching practice. The biology lecturer at Glasgow spoke about her decision to overhaul a fourth year biology module which resulted in there being no more lectures. The module then ran as a series of student led projects which she said was a huge risk initially, but in the end it paid off. The veterinary medicine lecturer said one of the greatest risks he takes is allowing his students to anesthetise an animal themselves but he was keen to point out that he would not allow all students to do this. Another lecturer spoke about handing over control of assessment to his students, he said:

"I took a big risk with one of the Popular Education groups, they [the students] wanted to [peer] assess everything … that was a big risk, it worked out very well, but … at the end of the day … they could do it provided they all agreed to do it and [if] had it been a disaster, the students would have taken the blame.

At the end you got a wonderful example of what students could do." (Interview with Spanish and adult education lecturer, Glasgow)

All three of these examples hint at students being given more responsibility over their learning which is one of the guiding characteristics of active learning put forward by Berry (2008) and Denicolo et al. (1992).

The urban planning lecturer spoke about taking a new approach in her teaching which included an element of risk because it was a bit "out there". She was keen for her students to challenge their assumptions about planning and had designed a workshop which involved students engaging in political discussion around an area of deprivation and regeneration in Glasgow's East End. She wanted her students to physically visit the site and assess the area and then reflect on how their thinking had changed; this was a first in the department. This example of risk seems to connect to another guiding principle of active learning; critical thinking (Denicolo et al. 1992).

The physics lecturer discussed his attempts to make changes and take risks in his teaching approach. He said that changing his practice often took more time than anticipated and he wondered if he could sustain it. He also spoke about the effects of taking risks and if it was worth it. Bonwell and Eison (1991), Bovill et al. (2010) and Michael (2007) all suggest that changing from traditional didactic teaching methods can be both time consuming for the teacher and often requires more concentrated effort during the initial planning stages, however, Bovill et al. (2010) and Bonwell and Eison (1991) also argue that making the classroom, and the practices which go on there, more inclusive and participatory is ultimately more rewarding for both the staff and students. However, the physics lecturer also appeared cautious about new innovations in learning and teaching:

" … I think what is underpinning my thinking is I don't want to have radical changes and that changes for changes sake is a danger. You go to education conferences and often what you talk about is the innovative things, but innovation does not equal good so I am cautious about this, often people are just trying to make a name for themselves." (Interview with physics lecturer, Glasgow)

There are always new ideas and new progressive concepts being published. However this lecturer suggests that it is best to employ some caution. Taking risks in teaching is often as a result of knowing the environment and the students you teach, therefore it would be naïve to accept that new ideas or concepts will suit all situations.

Another lecturer spoke about the positive side to taking risks in his teaching. He said he had taken small risks by opening up discussion and *"abandoning notes early on and …. putting faith in your own ability not to dry up"* For him, these were not major but he said that taking small risks on a regular basis *"makes you a bit nervous and that's good, it's good to feel a bit uncomfortable, it gives you an edge so you are not just trotting out things you have done before and you watch your class to make sure it's working"* (Interview with archaeology lecturer, Glasgow). According to this lecturer, students deserve more than a scripted lecture. His reluctance to repeat the same material in the same way shows that he is engaged in certain amount of reflection about his teaching.

Teaching in a scripted or formulaic way also mentioned by students in one of the student focus groups. The students said that they learn better when teachers use more of a discussion approach rather than scripted lecture but that *"lecturers aren't used to it … there is an element of risk. I don't see any of my lecturers scrapping their notes"* (Student focus groups, physics students, Glasgow). This lecturer also said that she thought trying new teaching techniques, such as student-centred learning, can have an element of risk for both lecturers and students:

"Yes, student-centred learning is a risk. I don't know how students will react or the faculty don't know how they will react. The newest thing I've tried is students giving evaluations on group work. That's new as they've never done it before and [they] were a bit scared at first." (Interview with human biology lecturer, Iraq)

One lecturer said that he went out on a limb trying to break the mould in his music education course. In trying to adapt his course curriculum and assessment, the lecturer said he landed himself in hot water with the head of department. This lecturer decided to give his students a choice of either composing music

(which was the traditional method of assessment) or doing a piece of musical research. The head of the department did not agree with this change and forced him and the students back to the traditional method with very little time left which almost resulted in many of the students failing the course. The lecturer said he was very disappointed when this happened but was determined to continue making changes which would be permitted.

On a similar yet more positive note, this lecturer discussed a time when he changed the rules of the assessment of his course which had a good result. He explained that he set a *"take home examination"* where *"students would write part of their exam at their home time."* He knew this was a risk but was adamant that students having to *"come together to a room where they have two/three hours to sit down and write an exam and it is assessed and that determines how good or bad a student is"* was not a good method for assessment in his subject (Interview with film and TV studies lecturer, Ghana). The lecturer said that this risk paid off and students' performed better because there was not as much pressure.

The geography lecturer discussed the fact that for some students, changing the rules of learning, teaching and assessment can be unsettling. He said that by asking his students to focus on developing their critical thinking skills first and not pay attention to the end of course exam was extremely uncomfortable for them. He said the students wanted him to plough straight into the curriculum and they wanted him to set out their learning in a linear way so that they are reassured about exams times etc. The geography lecturer also mentioned that most other lecturers would have done things in a linear way, but by focusing on learning techniques, students were encouraged to develop good study and learning habits first which he believed will benefit them more in the long term.

Conversely, there was an example when students said that they think it is teachers who fear change the most in learning and teaching:

"I think that active learning is feared by some lecturers because there is a lot of pressure on them for their students to get good grades so the safest way is to give us all the information, make us copy the notes [and] send us away and

make us do all the work. I think taking an active approach is a bit risky."
(Student focus group, physics students, Glasgow)

According to the physics students, lecturers are taking a risk when they veer away from didactic teaching practices. As the students said, this could be because there is so much pressure for teachers to meet student performance targets that they feel pressured to transfer information to their students for them to memorise in exams, or it could more that active or participatory learning usually determines a shift of power in the classroom. Freire (2000) and Nesbit (1998) both write at great length about the ability of teachers to acknowledge and redistribute power in the classroom. In this particular section of the findings, the responses of the lecturers and students does indicate that it can be risky for a teacher to relinquish some of the control of because it transfers power from teacher to student and the outcome may be more precarious.

Discussions about power within the classroom are valuable to this research because it offers a critique about why everyone in higher education is not 'doing' active learning. It shows us that some lecturers believe it is either too risky or not appropriate to their teaching context. Nesbit (1998) argues that policies and societal norms heavily influence decisions taken by educators so, more often than not, they choose the well-worn path of teacher-centred teaching methodologies and in doing so, they reinforce cultural and hegemonic norms. He argues that even with a certain amount of autonomy, many teachers will still choose a teacher-centred approach because they are constrained by cultural and structural norms. Nesbit's argument does have credibility, however, it does not take into account that teaching practices can differ according to the institution, the discipline or the teaching philosophy of senior staff or management. Furthermore, Nesbit neglects the fact that teachers in higher education may break with a teacher-centred pedagogy and implement participatory teaching methods because they either have been taught that way themselves or have been exposed to more social constructivist, democratic or participatory theory during formal academic development training.

Do good teachers take risks in their teaching practice? There appears to be no straight forward answer to this question. Some of the participants of this

research were keen to point out their own experiences of risk taking in their teaching practice, but whether this made them a good or better teacher is debatable. Several of the participants' risks were taken in order to provide a better or more challenging learning experience for their students, therefore this could make them a good or better teacher because they are focused on improvement and development of their practice. Active learning often involves a shift from teacher-centred to student-centred approaches and a certain amount of risk or vulnerability may be inevitable because the traditional roles of teacher and student are challenged. Teachers and students may feel that there significantly more work and preparation involved in implementing active learning approaches, for some it is even an uncomfortable experience. However, as has been demonstrated, there are a number of teachers who are taking risks, making changes and developing their practice so that it reflects a more active approach with successful results.

4.3.2 Summary of Sub Research Question One - Is there a relationship between good teaching and active learning?

Good teaching and active learning share many similar characteristics (e.g. fostering critical thinking, encouraging student to work together), however this does not necessarily mean that there is a relationship between the two. From that data and literature discussed in this section, it has been demonstrated that good teachers are perceived to be those who put students at the centre of their practice, challenge the thinking of students and the conventional roles and practices of teaching and learning in higher education. Furthermore, it was also suggested that good teachers take some risks in their teaching in order to provide better learning opportunities for their students. Gibbs (2012) and Revell and Wainwright (2009) suggested that good teaching and effective learning takes place when there are opportunities for interaction and collaboration between students and teachers and this was echoed within my research data. The way the relationship between good teaching and active learning manifested itself was that good teachers provide opportunities for active learning.

4.4 Sub Research Question Two: How do students' and teachers' beliefs about the purpose of a university education influence the practice of active learning?

Teachers' philosophies of teaching significantly influence why and how they teach. Similarly, students' beliefs about learning also influence why and how they study in higher education. The conceptions and practice of active learning may be influenced by why students and teachers believe they are teaching or studying at university. First, this section explores philosophies of teaching which were expressed by teacher participants. Second, students' and teachers' beliefs about the purpose of a university education will be discussed. Third, there will be an exploration of participants' thoughts on the learning relationship between students and teachers in higher education. All of these sections will then be examined to determine if and in what ways active learning is conceptualised and practised in higher education.

4.4.1 Philosophy of teaching

Rowland (2000) argues that educational discussion must transcend theory, it must concern itself with questions of values, not methods or disciplinary perspectives. Researching teachers' axiological values and philosophies unravels why they teach the way that they do; it also helps investigate if and how they engage with the concept of active learning. I asked participant lecturers directly whether or not they had a philosophy of teaching and how they put their philosophy in to practice. The urban planning lecturer said:

" ... the way you teach is about who you are, I have a natural rapport with certain kinds of people. I can spot them on day one in my classroom and I know they are going to get it and who I am going to spark off. I am looking, thinking how I am going to change what I do to bring you along with me in a way that doesn't put you off because my personality puts certain people off." (Interview with urban planning lecturer, Glasgow).

The statement "the way you teach is about who you are" is similar to the statement made by Sharan (2010) who suggests teachers not only teach what they know, but also teach who they are. This is similar to what Freire (2000) argues, he said that teachers bring their own assumptions, politics and beliefs

into the classroom with them. Knowing teachers' pedagogical beliefs is fundamental to understanding what makes them teach in the way that they do. So much of what teachers do is wrapped up in their own beliefs: what anecdotes they choose to tell students, what examples they give and their selection of teaching approaches and methods - these all rely on teachers' own core beliefs and principles about learning and teaching. The urban planning lecturer believes she can relate more easily to some of her students than others, but does not allow this to become an excuse to ignore some students. She said "what can I do to bring you along with me" which suggests she felt responsible to engage all of her students no matter their thoughts, opinions or personalities.

The urban planning lecturer also said that her philosophy comes from her desire to promote the development critical thinking skills in her students. She said that if her students are able to *"ask a question of what is really going on …[and] unpack to see in a critical sense what is happening in a situation…[then] I feel I have fulfilled my aspiration as a teacher"* (Interview with urban planning lecturer, Glasgow). Critical thinking as defined by Halpern (1999) is the purposeful, reasoned, and goal-directed use of cognitive skills and strategies. Critical thinking requires students to be engaged actively in the process of conceptualising and applying new information and various definitions of critical thinking have been offered, such as argument analysis, problem-solving, decision-making, and cognitive processing (Kim et al., 2012). Adding to this, Halpern (1999) characterised critical thinking as evaluating the outcomes of thought processes and how good a decision is or how well a problem is solved. This relates to the 'critical thinking' characteristic of active learning suggested by Berry (2008) and Denicolo et al. (1992) and the 'higher-order thinking (analysis, synthesis and evaluation)' suggested by Bonwell and Eison (1991).

Another lecturer said that her philosophy was to allow her students to see that there are multiple ways of looking at things and that there is no one right answer:

"I say to my students there is no wrong answer in English literature which is slightly tongue in cheek [because] you can be wrong about when Shakespeare was born, but if you can provide an analysis to a piece and if you can provide

evidence for it and that's as valid as any other and I think in some ways that is my philosophy." (Interview with English literature lecturer, Glasgow)

The same lecturer said she believed it was her responsibility to challenge her students. She said sensitive issues are raised in literature (gender, sexuality, bereavement etc.) and that she tries not to shy away from them, instead she challenges her students' opinions by saying that's a bit *"problematic"* or *"that's interesting … think about the implications of that"* (Interview with English literature lecturer, Glasgow). Another lecturer said he also likes to challenge his students and take them out of their comfort zone:

"I tend to ask more questions [and] I tend to get the students to talk, I don't like spoon feeding… I have a bad reputation, they [the students] are all frightened from me, they know when they come to anaesthesia they get grilled. But I think that's a good way to learn, I think if you are put on the spot and you have to think about something and if you go away and do reading before they come to us that's a good thing." (Interview with veterinary medicine lecturer, Glasgow)

According to Freirean philosophy, education is never neutral and no matter what subject or context is being addressed, Freire believed that all education and teaching is political. In light of this, the choice of course material and the way the curriculum is taught are all political choices made by teachers and management (although sometimes teachers will be unaware of this). Teachers hold an immense amount of power in deciding what is to be taught and how it is to be delivered, therefore their own values and beliefs come in to play in making these choices. The geography lecturer in Nablus mentioned that his political views underpin his teaching philosophy. Of course, the context in which he teaches was very different from the majority of other participant lecturers. He said that in his teaching, he aimed to challenge the regime which controls what goes on because he is a role model to his students. He said:

" ... some teachers teach in a way that reinforces oppressive structures. I believe a teacher should be a chain breaker like a lot of students come chained from culture or from society ... It is to give the students the ability ... to practise freedom to seek … you are speaking to a person who is teaching in a

university in a society that is under colonisation and oppression so there is a specific context to my teaching, I am not just speaking as a teacher who is teaching in a Western society or in a normal condition ... I am a model to them." (Interview with geography lecturer, Nablus)

In a different context but in a similar vein, the urban planning lecturer said that she believed that teachers should be open and honest about their political opinions. She said her political views were an incredibly important part of her teaching and that they were *"part of the package"* (Interview with urban planning lecturer, Glasgow); however, she also said that she encouraged her students to argue their opinions.

The biology lecturer suggested that her philosophy was based on her belief that teaching should be student-centred. She said that teaching is not about the teacher being in the middle and the students round the outside; it should be about students being in the middle and the teacher is peripheral so that the teacher *is "more kind of holding them up rather than talking to them from the front"* (Interview with biology lecturer, Glasgow). This lecturer gives us a visual representation of what she believes is student-centred learning. The lecturer's response seems to merge a physical concept of student-centred learning (SCL) (i.e. the physical layout of the room, groups not rows) with an abstract concept (designing the the curriculum in such a way that the students have more ownership over what they learn). The term 'student-centred learning' is sometimes problematic, much the same as the term active learning, because it is open to interpretation. SCL is widely acknowledged as being a term which is synonymous with active and progressive teaching approaches (Kain, 2003; O'Neill and McMahon, 2005), therefore what the biology lecturer may have been implying is that her philosophy is based not only on the SCL, but on active learning as well.

Dialogue and interaction with students were said to influence the archaeology lecturer's teaching; he said that he believed in *" … interaction [and] two way communication. I'm interested in what they [the students] say as well as vice versa so I think for me, learning and teaching is a two way process and they go together"* (Interview with archaeology lecturer, Glasgow). The Spanish and adult education lecturer also felt the same. He said:

"I come under the Freirean approach, so I believe the students have knowledge that I haven't got but I should have knowledge that the students haven't got and that's very important … I don't know what's going on in the student's head ... so it is fundamental that classes are based on dialogue."
*(*Interview with Spanish and adult education lecturer, Glasgow)

By emphasising that communication and dialogue are important in the classroom, both lecturers (archaeology and Spanish and adult education) seem to indicate that they are keen to distribute power and control equally amongst themselves as teachers and their students. The teacher as the 'all knowing giver of knowledge' does not appear to be a concept which these two lecturers would agree with; instead they seem to be arguing that the students' knowledge needs to be valued and their voices listened to just as much as that of the teacher. However, crucially they both also indicate that in their position as the teacher, they have knowledge and expertise which must be called upon.

The film and TV studies lecturer also mentioned the importance of dialogue to his teaching philosophy. He became aware of how important it was to have dialogue with his students due to an incident where his students were unclear about an assignment he had set them and ultimately performed very poorly because they and he failed to engage in a conversation about it. He said that he took it for granted that they understood what they had been asked to do because they simply answered 'yes' when he asked them. As a result, he said his philosophy was not to have a *"top down approach where you have a sender and a receiver"* but to have a *"parallel approach"* (Interview with film and TV studies lecturer, Ghana). However, after having interviewed this lecturer, I then observed his teaching and I was surprised when his teaching philosophy did not seem to match his teaching practice:

'Having interviewed the lecturer after the lesson, I was perplexed that his own teaching philosophy did not seem to match what he actually did during the lesson. He spoke about giving over ownership to the students, however there was no real example of this in the lesson I had just observed.' (Observer notes, film and TV studies, Ghana)

I was disappointed in this observation as I had thought (due to the conversation we had had previously where the lecturer had expressed beliefs about dialogue and power imbalance in the classroom) that his practice would involve the students taking ownership of their learning and participating in the classroom. As Argyris and Schon (1974), Hallett (2010) and Richardson (2005) indicate, there can sometimes be a gulf between what the lecturer espouses to be their teaching practice or philosophy and what actually happens in their teaching practice. From my observation of the film and TV studies class, I was unable to see any real interaction or participation by the students; however, I am aware that I only observed one class and that it would be unfair to generalise that all this lecturer's classes were conducted like this. Furthermore, my perspective at the point of this observation was that active learning, student-centred-ness and student participation is always a better method of learning and teaching.

The music education lecturer explained that his teaching philosophy came from his belief that a teacher's role is one of support and guidance, which is similar to what biology lecturer said about “holding her students up”:

“My philosophy is to get my students to the highest level that they can attain through their own efforts, which means that I just guide them. There is a statue that we have in the university [where] there is a woman who has a baby on her chest and holds her breast [away so that] the child is struggling to get fed, the child has to make an effort to be fed ... and that’s my thinking is that my students should do the work themselves and I am a guide.”
(Interview with music education lecturer, Ghana) (see Appendix 11 for photograph of statue)

This type of teaching philosophy seems to have a pastoral element to it as well as significant cultural values. In Ghana, as in many parts of the African continent, people's work ethic stems from a basic need to survive as there is no welfare state to provide when life becomes difficult.

Exploring the concept of active learning led to the investigation of teaching philosophies because they may have significant influence on what type of approach educators adopt. Some of the philosophies expressed by teacher participants did not seem to manifest in the practice which I observed. In some

of the participant responses it was possible to make a connection between teaching philosophies and some of the characteristics of active learning which therefore suggests that it is important to consider how conceptions or beliefs influence curricular and methodological decisions and help unravel the term ‘active learning’.

4.4.2 Teachers’ and students’ views of the purpose of a university education

This section links to the previous section on philosophy of teaching; but this time includes the views of students. I asked students and teachers what they thought the purpose of a university education was because the motivation of students, and their belief about why they are at university in the first place, affects the way in which they engage with learning, and more specifically, active learning. It is also pertinent to consider the beliefs of the teachers in higher education because their beliefs about the purpose of a university education will undoubtedly shape how they approach their teaching. Some participants said that going to university is about developing skills which will help secure a good career, others said that undertaking a degree is about enriching lives more generally.

According to Rogers (in Nesbit et al., 2004), education should emancipate people and should challenge what the learner thinks and how they see the world. Furthermore, Bonwell and Eison (1991) argue that learning is not just memorising content, it is an experience, it can be transformative and is more than the sum of all course readings. With this in mind, I chose to ask about participants' beliefs about the purpose of a university education because learning and teaching is influenced by beliefs about education and this may hold the key to unpacking what is meant by active learning.

When answering the question 'what is the purpose of a university education?', several participants alluded to the development of transferable skills which, significantly, are included in Bonwell and Eison’s (1991) and Denicolo et al.’s (1992) description of the characteristics of active learning. The archaeology lecturer mentioned the University of Glasgow’s Graduate Attributes and said that the development of self-confidence, intellectual maturity and team working

were all skills he thought his students developed whilst studying. He also mentioned that for the majority of working people *"out in the big wide world, you don't do your job sitting in a library"* (Interview with archaeology lecturer, Glasgow). This lecturer seemed to think that collaboration with others better reflects the world in which the student will eventually work, therefore it is important that they develop the necessary transferable skills i.e. team work, decision making etc., to enable them to function in that world. This relates to one of the characteristics of active learning suggested by Denicolo et al. (1992) - that students must look beyond the immediate frame of reference and learn in a way that will be of wider benefit to them in their future lives and careers.

Independent learning was cited as a transferable skill by undergraduates in the physics focus group. Their opinions were that that working on group projects or in pairs allowed them to feel more comfortable with what they will have to do in the workplace. Conversely, some of the students whom I interviewed did not agree with this idea of coming to university to develop a set of transferable skills. One student said *"I think that's mixing up what a university should be compared to what a really good company should be"* (Student focus group, biology students, Glasgow) which may mean that learning skills is more suited to a 'training' environment such as that found in the workplace. However students in the same focus group said that they did agree with the idea of developing team working skills because it *"is an important part that you need especially in science, you won't find any single scientist doing experiments, it's always teams"* (Student focus group, biology students, Glasgow). It is clear that for some lecturers and students, the ways in which students learn in higher education should reflect what goes on in the real life of work so that the students are better prepared. Berry (2008), Denicolo et al. (1992) and Rogers and Freiberg (1994) all suggest that students taking responsibility for their own learning either by working independently or in groups is a key characteristic of active learning. Some of the transferable skills mentioned in this section (e.g. team work, independent learning) link to some of the characteristics of active learning, therefore given the evidence, it is plausible to say that developing skills is an important component of active learning and helps to define it.

The classics lecturer believed *"the purpose of education is to make you an all-round individual, to give you culture not only to learn to read and write, or*

even interdisciplinary skills at a later stage, but … be able to have an opinion in society" (Interview with classics lecturer, Glasgow). Culture, in this respect, appears to mean an individual's ability to become well-read, knowledgeable and informed about the world, history, politics etc. This lecturer works within the school of humanities, in particular classics, therefore his field of work and study influence his response. In contrast the veterinary medicine lecturer expressed that he was perplexed by those subjects which did not have clear, work related professional outcomes; the idea that a person comes to university to acquire 'culture' could be alien to teachers and students who are engaged in vocational degrees.

The classics lecturer and the urban planning lecturer said that a university education must benefit society in some way. The classics lecturer said that there is a danger in the 'intellectual subjects' that learning is for learning's sake; however, he said that all education is relevant to the wider world in that it provides a background in culture, literacy and expressing yourself. The urban planning lecturer said:

"the purpose of a university being the distinction between the 'town and gown' where university is considered to be a factory for producing graduates, but we do a lot more than that. A graduate does not mean a person with a piece of paper; hopefully it means someone with a different view on the world, hopefully a better one. Having your experience broadened and your sense of how the world functions stretched in some way is fundamentally a part of what we should be doing here." (Interview with urban planning lecturer, Glasgow)

Both these lecturers appear to advocate that a university education has the potential to have much wider implications than those which are just about the student gaining a qualification. These lecturers seem to be suggesting that higher education should have an impact on society and thus learning for learning's sake is no longer good enough. Impact of teaching and learning is often measured by research output; where the 'gown' meets the 'town'. If students are involved in research projects or in thinking about the ways in which their learning could benefit society, then they might be more inclined to be more engaged or take a critical approach to their learning (outlined as characteristics of active learning).

The Spanish and adult education lecturer also believed that universities have a wide reaching remit and that they should be committed to challenging the status quo in all its forms. He said that the purpose of a university education is *to "make the world a better place to live in…they [students] get sucked into the system, so it should also be while they're accumulating all that knowledge [that] they should recognise the power scenarios in society and seek to change that and make the world a better place"* (Interview with Spanish and adult education lecturer, Glasgow). This response has quite a political tone. The extent to which politics is brought into the classroom depends on two things; the teacher and the context. This teacher lives and works in the UK however what he said does echo the geography lecturer in Nablus who said teachers should not teach in a way that reinforces oppressive structures and that students should be given "*the ability ... to practice freedom to seek*". These responses align with Mezirow's (1997) theory of transformative learning and Rogers in Nesbit et al.'s (2004) discussion that education should emancipate people.

The physics lecturer said the purpose of university education *is "to push the boundary of the sum total of human knowledge"* (Interview with physics lecturer, Glasgow), whilst the Spanish and adult education lecturer said that university education is about *"making the sum total of human knowledge available to the sum total of humanity"* (Interview with Spanish and adult education lecturer, Glasgow). These responses are interesting because in essence they are saying the same thing; however they come from two academics in completely different fields of work; one from the 'hard' sciences (physics) and the other from social sciences (education). Teachers' philosophies or approaches to teaching are possibly more a reflection of personal beliefs rather than being characterised by the discipline they teach in.

In Ghana, two of the lecturers said that a university education should be about cultivating good leaders and professional people. Both these lecturers talked very openly about their vision that university should inspire people to take leadership roles in society and invest themselves in the betterment of the country. These lecturers may have cited these kinds of purpose because Ghana is a developing country; however, even in so called 'developed countries' e.g. the UK or the USA, the purpose of university education may also be to produce great leaders of society and industry. Arguably, the purpose of higher education is

rooted in the status it gives the learner. In developing countries or countries like Iraq, which has experienced much political and economic upheaval, higher education plays a huge role in its development. In Iraq, when asked what the purpose of university education is, the human biology lecturer said it was now engrained in Iraqi culture that everyone who can, should complete university learning. She said that coming to university is simply about getting the qualification and achieving status. In the Iraqi lecturer's opinion, gaining a university degree was simply a progressive step expected of all young people leaving school. Of course this is only one person's opinion and other Iraqi lecturers may have answered differently; however, it does show a side of university learning which in certain context and parts of the world, has a mostly functional/utilitarian purpose.

In summary, the data outlined in this section suggests that beliefs about the purpose of a university education do influence how a student or teacher engages with learning and teaching. There seemed to be, at times, a divide in vocational/professional degrees (such as veterinary medicine or dentistry) and non-professional/vocational degrees (such as classics or film and TV studies). In the main, those working or studying in professional degrees said that the purpose of a university education is to learn a profession or develop a set of skills. Those working or studying in non-professional degrees gave very different answers such as to acquire 'culture'. Some discipline and cultural influences are apparent and some answers were quite conservative, others more radical. However, as was the case with the physics lecturer and the Spanish and adult education lecturer, there were instances where there was an overlap of opinions and ideals despite participants coming from two different disciplines. Students who view a university education as a means to an end (i.e. getting a qualification) may adopt a different approach to learning than those who view it as a time to indulge or immerse themselves in the holistic student experience (i.e. clubs, societies, etc.). In the case of teachers, it could be that if they hold the 'means to and end' opinion their teaching approach will reflect that and they will not be as willing to commit to or develop active or progressive teaching practices. The same could be said in the reverse. If teachers view the purpose of a university education as a holistic and possibly transformational experience for students, then they might be willing to adopt or devote more time to developing

active, progressive and student-centred teaching approaches. In terms of who can influence active learning more, ultimately it would be teachers as they are most often the ones who hold the power. A teacher can provide opportunities for active learning to happen by adopting certain teaching strategies. However, this does not totally rule out the ability of students to influence active learning as they have power over how they respond to the learning opportunities they are provided with.

4.4.2.1 University education as a Commodity

A theme which is emerging from current developments in UK higher education suggests that education is fast becoming a commodity (Collini, 2012; Lyotard, 1984; McFarlane, 2004; Naidoo and Jamieson, 2005; Poon, 2006). Viewing education as a commodity may influence how learning and teaching is practiced because those who agree that it is may have different expectations from those who do not believe it is a commodity.

I asked students in the focus groups whether they viewed their education at university as a commodity. The biology students said that it did not feel like a commodity, more *"like an investment in progress"* (Student focus group, biology students, Glasgow). The students also said that universities should not have to perform like businesses; they should just be about learning, however as outlined by Olssen and Peters (2005), neoliberalism has produced a fundamental shift in the way universities define themselves which means now all institutions take a corporate approach to their business with importance placed on targets and performativity.

Students in physics and classics both agreed that the idea that education could be a commodity was unsavoury, the physics students saying *"the idea cheapens it….I don't want to see it as a money investment and [it] seems really commercialised - education for profit"* (Student focus group, physics students, Glasgow). However, some students felt that it was no bad thing to put a monetary value on their learning. The Spanish students were keen to point out that some students pay a lot of money for their education and a lot of teachers *"get away with being rubbish"* (Student focus group, Spanish students, Glasgow). The issue of money was also raised by other students. One of the

biology students said that many home or EU students mess around during their degree and they would not do that if they were paying for it. Similarly, one of the physics students said that education *should* be viewed as a commodity because it may increase the standard of teaching and if "you pay a lot of money and should get a good education" (Student focus group, physics students, Glasgow).

Within the responses to the question what is the purpose of a university education, there was a reference to education as a commodity made by the classics lecturer. He was not in favour of labelling students 'customers' or 'clients' because it caused a barrier between teacher and student. He was keen to point out that students are *"not really our clients, I don't view them as such. I try as much as possible to create some connection with my classes"* (Interview with classics lecturer, Glasgow).

It is interesting to consider whether or not neoliberalisation and the commodification of education influence how people engage with higher education and if it does, or will, affect learning and teaching processes. Collini (2012) argues that the perceived benefits of treating a university as if it were a business e.g. measuring efficiency, mask the true underlying danger that individual autonomy, intellectual activity and voluntary cooperation will be eradicated. Aristotle (cited in Palmer, 2001) argued that education should be of intrinsic value, therefore this highlights that as far back as ancient times, the same educational issues were debated. Collini (2012) also argues that in 21st century higher education, people are obsessed with evidencing 'instrumental' goods (i.e. skills which enable people to do things for themselves and for society) which comes at the cost of valuing 'intrinsic' goods (knowledge which is an end in itself and good enough to satisfy the individual). Active learning approaches to learning and teaching could be placed under Collini's 'instrumental' heading because there is often a 'skills' component included in definitions. However the same could be argued for Collini's 'intrinsic' heading because active learning is also defined as an approach in which the student has an increased amount of control over their learning and there is a focus on individual autonomy and responsibility.

4.4.3 Relationship between teacher and student

The notion of learning relationships is implicit in the historic philosophic and educational theme of dialogic (as opposed to didactic) learning. Socrates, Rousseau, Dewey and Piaget all emphasised the role of teacher as promoter of questions and exchange within the context of a learning relationship. Didactic learning and teaching methods in higher education often mean that there is little interaction between the teacher and the students, or if there is it is often superficial such as students answering the teacher's questions. This may be due to the large ratio of teacher to students in a lecture theatre or what King (1993) talks about as the 'sage on the stage' type of environment where, even in a smaller classroom set-up, the students have little opportunity to interact or participate. On the other hand, if teachers were to adopt a more progressive approach to their teaching, this may involve more interaction in the classroom and sharing of responsibilities between teachers and students.

Gibbs and Jenkins (1992) and Rogers (1993) state that relationships between educators and students are crucial to teaching and that it is also crucial for these relationships to be developed. This is also emphasised by Freire (2000) who argues that there should be dialogue and critical partnership in the classroom. If, as suggested by Gibbs and Jenkins (1992) and Rogers (1993), relationships between the learner and the teacher are of paramount importance to the success of the learning experience, then it is essential for this research to investigate if and/or how student and teacher relationships influences the practice of active learning.

Several participants (teachers and students) said that it was almost impossible to create a relationship in the traditional lecture set-up whereas other lecturers said they made an effort to break down barriers in a lecture and at least make some one on one contact with their students. Some participants said that in a small setting such as a lab or tutorial, relationships were much easier to cultivate. Some students also said that as undergraduates they did not expect to have any relationship with their lecturers as that was something which was reserved for the world of postgraduates.

Several participants said that relationships between students and teachers are possible, but the teacher has to be accessible, approachable and there has to be an element of mutual respect. The English literature lecturer said that due to the fact she tries to be approachable in class, students can be over familiar with her:

"I get students who come up to me and talk to me as if they know me and presumably they have got the impression from my lectures that I am the kind of person who is approachable and it's odd because I don't actually know them…one girl came up when I was pregnant and chatted to me because her mum was having a baby." (Interview with English literature lecturer, Glasgow)

Approachability and trust were viewed as important aspects in the building of teacher and student relationships. The biology students said that when a lecturer stays behind after a class and is there to answer questions, then they are more inclined to believe that the lecturer is committed and invested in what they are doing. The dentistry lecturer mentioned that when her students are treating patients there has to be mutual trust, she said *"they have got to trust you … I have got to trust them and they have to tell me if something is going … so there is definitely a lot of trust because they could do a lot of damage before they come and get me to sort things out"* (Interview with dentistry lecturer, Glasgow).

The veterinary medicine lecturer suggested that it is difficult to create a relationship when there are over one hundred students in the lecture. He added that it is much easier to build a relationship when students get into their final years and he is teaching much smaller groups. The biology students agreed with this, they said that they did not really have any true relationship with their teachers but understood that it would probably be easier in postgraduate teaching situations. The veterinary medicine lecturer added that there must always be a professional divide, he said that it is important to remember that he is not there to be the students' friend and that over-friendliness is not professional. The same issue was raised by the archaeology lecturer who said *"…you mark their work you are never going to become best buddies, different from PhD students where you can. One of my ex PhD students is godfather to my son. You don't assess their work you comment on it guide and help but with*

undergraduates there is always that in the relationship and the age difference" (Interview with archaeology lecturer, Glasgow).

Similarly, the urban planning lecturer said that building a relationship with postgraduates is easier, however she pointed out that:

"There are certainly circumstances where a more face to face relationship is important and I tend to have that with postgrads that I see more often. I don't feel that I have a relationship when I am standing in that first lecture and I know I have students for two more hours for the next two days and yet, there is still something there about a relationship because you have to draw them in, because when you lose them you lose them spectacularly. So there is a relationship it's just not a personal one, it's about the atmosphere you build." (Interview with urban planning lecturer, Glasgow)

It may not be possible for teachers to know *all* the students they teach, but as the urban planning lecturer said, overcoming this is possible if a teacher creates a welcoming environment in the classroom which links back to what some other participants said about teachers being accessible and approachable. The Spanish and adult education lecturer said that although in his own teaching practice he was more used to dealing with smaller groups of students, he believed that even in classes with over one hundred students, a good *teacher "can connect at that level and have some sort of rapport but that [it] requires some interpersonal skills"* (Interview with Spanish and adult education lecturer, Glasgow). Brophy (2002) argues that a student and teacher relationship is possible in a lecture if the class as a whole is broken into smaller groups. The same idea was also expressed by Jenkins (1991) who suggested that large classes are not detrimental to the learning experience; however, Jenkins suggested that it is staff attitudes to teaching large classes which are the most important influencing factors.

The issue of whether or not student and teacher relationships are important to active learning was discussed by several participants. The physics students agreed that the student and teacher relationship is very important, they said:

"We have a lot of lecturers who just teach the class but don't interact with the students … The guy who is teaching us the medical course knows most of our names. He made the point of doing it and he told us he was going to do this ... some of the lecturers … just speak 'at you' whereas [with] him having this interaction there is more to it and I feel that's a big part of the lectures." (Student focus group, physics students, Glasgow)

Furthermore, the same students spoke about the benefits of having lecturers who are interested and treat them as real people:

" ... it's an isolating experience if lecturers don't try to get involved. But if you have someone who is invested then you feel a reciprocal relationship and you would be invested ... I'm not expecting the lecturers to care about us but it's nice and it's like a gift when you see a connection with a lecturer and it's lovely because I understand they don't have to be like that." (Student focus group, physics students, Glasgow)

These students seemed to believe that realistically, it is not possible for every student to have a close working relationship with their lecturer, however when it does happen it is a really positive experience. The classics student also highlighted:

"It is very important if you know someone, not personally, but they have a certain expectation of you, they know your name, they talk to you then it's a different type of learning …. I think it's very important that the learner is close to the teacher." (Interview with classics student, Glasgow)

The film and TV studies lecturer also agreed on the importance of a student and teacher relationship. He suggested that providing refreshments for his smaller classes created an atmosphere where the students could feel comfortable. He said this was important because *"I want them to feel free because we are dealing with the arts, this is not maths where you have formula and it gives you some result, you want them to be free so that they can be creative, I don't want them to use formulas"* (Interview with film and TV studies lecturer, Ghana). The geography lecturer said that he encouraged his students to come to

him for advice and was keen not to be seen as superior to his students therefore he often acknowledged when he did not know something.

In the Spanish students focus group, the students said that they believe the student and teacher relationship is very important to their learning and that if the teacher shows that they are invested in the process then they as students are more likely to reciprocate. The biology lecturer also suggested that relationships are extremely important and that teaching staff who ignore this or do not make any effort to get to know their students are "missing a trick" because *"it's much less satisfying when you don't know who your students are…so you try to get to know them and I think you have to get to know them because you start to invest in them"* (Interview with biology lecturer, Glasgow). However, the physics Lecturer argued that, whilst the student and teacher relationship is important, it is not crucial to successful learning. He *said "… without a relationship you are not going to inspire the student … [but] I found that learning is essentially a solo activity because what you learn is what you learn, it's private to you and in that case it's a very internal process"* (Interview with physics lecturer, Glasgow). The urban planning lecturer said something similar, "I don't think you have to have a one to one relationship for them to have learned something from you" (Interview with urban planning lecturer, Glasgow).

Some participants gave examples of how student teacher relationships are developed. In archaeology, it was said that the inclusion of field work allows the student-teacher relationship to evolve more naturally:

" … we do field work which means you are living with them [the students] for a month so you get to know them very well, eating with them three times a day possibly sharing a dormitory … because you relax a huge amount, because you are out of the confines [of the university]. It's all first names and you chat about whatever it might be so in that sense it's relaxed." (Interview with archaeology lecturer, Glasgow)

In Ghana, the music education lecturer spoke about the very close connection he had with some of his students and stated that he placed a high premium on relationships. He also mentioned that he felt comfortable enough to visit his

students in their dorms when he wanted to share ideas, he said *"I want them to succeed and that relationship is cultivated immediately in the classroom …they don't care if you come into their dorm and they think it's a privilege for me to be with them so there is a strong relationship between us"* (Interview with music education lecturer, Ghana). For Western teachers, visiting students in their dorms may seem slightly strange as not many Western lecturers would appear at their students' halls of residence to discuss ideas, but in Ghana, and more specifically at the University of Cape Coast, the rules and norms may of course be different.

The relationship between the teacher and students in one particular observation was very apparent to me:

> *'Yes, the students entirely ran the session. The lecturer seemed to be there in a supportive/advisory role. The students seemed comfortable with this as if they were used to it. The students raised issues they were facing in their project and asked for the lecturer's advice. The lecturer responded sympathetically and with a bit of humour.'* (Observer notes, physics tutorial, Glasgow)

This was an observation of a fourth year class therefore, as has been highlighted by other participant responses, the student and teacher relationship may be much easier to cultivate as there is a much smaller number of students and those students are experienced and committed to the subject.

Active learning approaches may encourage student and teacher relationships to be formed for several reasons. First, there may be more student participation in class which means the teacher would have an opportunity to get to know students and their personalities because there would be dialogue between them. Second, active learning often means a move away from teacher-centred practice which means there is a shift of some of the control and power in the classroom from teacher to students. This could result in more student and teacher interdependence because they would have to communicate, negotiate and agree on how the learning will happen. Deakin Crick et al. (2007: p.268) argue that relationships between students and teachers help build a positive 'emotional climate', furthermore Deakin Crick (2007: p. 148) attests that these relationships are 'foundational to building learning power'. From a Freirean

standpoint, the relationships between the teacher and the students are based on power; the gaining, the sharing and the losing of it. This is also echoed by Brookfield (1995) and Rogers (1993) who propose that learning is rooted in the construct of power.

In my observation in a dentistry tutorial, I noted that the power dynamics in the classroom seemed to be very noticeable:

'The power dynamics of the student - teacher relationship seem more apparent in this vocational subject. Possibly because of the need to cover so much content, the students feel that they are there to listen to the teacher and not to question what they are taught.' (Observer notes, dentistry, Glasgow)

Similarly, I noted the same thing in another observation. I felt that there was no two-way communication and that there seemed to be no real interaction between the teacher and the students. The lecturer most definitely held the power:

'I believe the lecturer was trying to interact with the class by using the students' names and asking them if they understood, but I feel this was just lip-service to interaction as no dialogue ever came from this … The students … did not ask the lecturer one single question, there seemed to be a nervous atmosphere. I don't know if that was because I was there, or as the lecturer had said to me beforehand, they were quite a shy and anxious class.' (Observer notes, Latin Class, Glasgow)

Of course, just because there was no dialogue between these teachers and their students does not mean that the students were not actively learning as it has been suggested that active learning can be an internal and cognitive process. However, it is difficult to argue with the majority of research and literature which suggests that active learning is based on principles of interaction and participation. I observed a tutorial in veterinary medicine which, again, made me question the balance of power and student and teacher relationships in the classroom:

'In my opinion, the lesson which I observed was very one dimensional; teacher asks question, student offers an answer, teacher tells student whether they are correct or not. I felt there was quite a strong divide between the teacher and students; the lecturer appeared to be the knowledge-giver and the students were knowledge-receivers ... The students are all in their fifth year of veterinary medicine and are just about ready to go out into practice, however they seemed unsure of themselves in this lesson. I don't know if that is because of the atmosphere created by the lecturer's intolerance for inaccuracy or that is just how they are as learners.' (Observer notes, veterinary medicine, Glasgow)

I am aware from my own reflections that I use quite strong terminology here such as 'intolerance'; however, from my beliefs about learning and teaching (which are rooted in my own social science/ arts background), this is how it appeared at the time. Of course, in vocational degrees (as was suggested in the dentistry observation) there may be more focus on the 'right' answer and as this is less familiar to me, I may have over-reacted. I also view this observation as an example of imbalanced power the classroom because, as far as I could see, the lecturer quite clearly held almost all of the power.

A very interesting point was made by one lecturer who discussed the idea of the '4th wall' in teaching. He suggested that if lecturers are to really engage and interact with students then they must 'destroy the 4th wall' and come out from behind their podium or come down from their platform:

"I am unconventional [someone] who does not find it enough or satisfactory to stay behind the podium and create the 4th wall as if the students are invisible so I am quite eccentric in that I destroy the 4th wall. I am talking about borrowing terms from drama, if the audience/ students are watching something distant from them as if what they see is a room in a house shut by four walls. I can approach them anytime, I want to I bring them into the lecture, I involve them, I engage with them and sometimes [it] *works, sometimes* [it] *frightens them. They feel insecure because they like sometimes to be passive, they have mixed feeling … but I think overall what wins them is my enthusiasm."* (Interview with classics lecturer, Glasgow)

I believe what this lecturer is expressing is the connection he wants to make with his students; he values them as emotional human beings. This lecturer came across to me as someone who values the humanity of learning and teaching, someone who sees the process as a highly personal one for both teacher and learner. This idea of the '4th wall' was also discussed by another lecturer *"You could see a perspex wall between the lecturer and the class … they were personable but not connecting to the students"* (Interview with biology lecturer, Glasgow). Here the '4th wall' is described as a perspex one, but nonetheless, the lecturer said that it hindered any true connection between the lecturer and the students.

In summary, hooks (1994) explains that cultivating relationships between students and teachers could mean both parties having to share and give more of themselves and this would be true if the traditional student and teacher construct was broken down. Active learning can involve students taking ownership and responsibility for their learning. Adopting this kind of active learning approach often means that the roles of the teacher and student are changed so that they no longer represent the hierarchical structure of teacher as knowledge giver and student as knowledge receiver. As is evident in the responses of participants, building relationships between students and teachers can have significant and positive effects. It is possible that the term 'relationship' is interpreted differently and there seems to be significantly different layers; for some teachers knowing the students' names is enough, for others it is about knowing something about each other's lives. Approachability and trust were traits which were cited as making relationships between teachers and students possible. Humanity seems to be a word which could be used to describe what these responses have in common; the connection the students felt with the lecturer and the 'humanness' of the lecturers i.e. being able to say when they don't know something, knowing students' names etc. It may be possible that showing humanity (weaknesses and strengths) helps the student and teacher relationship to evolve. However, as was suggested by the urban planning lecturer and Jenkins (1991), it may be more to do with the values and attitudes of the teacher and not so much to do with the size of the class, as to whether or not any relationship is formed.

4.4.4 Summary of Sub Research Question Two - How do students' and teachers' beliefs about the purpose of a university education influence the practice of active learning?

First, this section explored philosophies of teaching which were expressed by teachers. In this research, teachers' philosophies were based on different beliefs, such as the need to enter into dialogue with students, to develop students' critical thinking skills, to give students support and guidance, and for higher education to challenge oppression in society. Some of the philosophies expressed by teachers did not seem to manifest themselves in their practice that I observed. In some of the participant responses, it was possible to draw a link between teaching philosophies and some of the characteristics of active learning. Philosophies of teaching can potentially influence the practice of active learning because those who believe that didactic teaching methods are ineffective and that learning should be student-centred are more likely to adopt an active learning approach.

Second, this section explored students' and teachers' beliefs about the purpose of a university education. There seemed to be a split between responses, some participants said the purpose of a university education is for students to develop skills and subject knowledge, where others said it is about students developing as a person, as a 'critical being' (Barnett, 1997) as well contributing to society and becoming 'cultured'. The responses reflected Collini's (2012) suggestion that university education either encourages the development of 'instrumental' goods or 'intrinsic' goods. Beliefs about the purpose of a university education could significantly influence if and how active learning is practiced because these beliefs may shape the pedagogical decisions made by teachers and the learning approach taken by students.

Third, this section explored the relationship between students and teachers in higher education and how this can influence and shape active learning. Most of the teachers and students agreed that developing a learning relationship is important. Several participants said that it is easier to develop a working relationship in smaller classes, and with postgraduate students. However, it was acknowledged that a teacher can create a welcoming and inclusive environment in a lecture theatre. Whether or not this constitutes developing an effective

learning student and teacher relationship varies greatly in different contexts and depending on the teaching philosophy held by the teacher. It was suggested by students that having a good relationship with teaching staff encourages them to work harder because they feel they are valued and are mutually invested in the learning process. Students will adopt an active learning approach to their learning if they feel valued, supported and included by teaching staff. Similarly, teachers who value dialogue and input from students will be more inclined to teach using an active learning approach.

Chapter 5 – Findings and Discussion Part 2: Emergent Themes

Part two of the findings and discussion explores the emergent themes from the data. I use the term 'emergent themes' to describe responses from participants or observation notes which were not prompted by direct questions. At the heart of qualitative research is the data that emerges that is unexpected and which offers a significant contribution to the research. Some of these emergent themes are present in the literature which was explored in chapter two; however, these themes, like power for example, are not located specifically within the active learning literature therefore this chapter presents a new and original contribution to the investigation of the concept and practice of active learning. This chapter will discuss the influence of power structures and tradition on active learning. It will investigate the perceived constraints which stop teachers adopting participatory and active learning approaches as well as the influence of student motivation. There will be an exploration of how active learning is perceived and practised differently in vocational and other discipline subjects and there will also be a presentation of themes which were particular to the international settings in this project.

5.1 Power in the classroom

Brookfield (1995) and Rogers (1993) both strongly advocate that learning and teaching are rooted in the construct of relationships and power dynamics and Rowland (2000) argues that student-centred learning (SCL) (or arguably active learning) cannot be considered without reference to power relationships. O'Neill and McMahon (2005) suggest that there is a paradigm shift when power moves from teacher to student which can often happen in progressive, active or student-centred learning environments. This research study is underpinned by critical theory which, according to Alvesson and Skoldberg (2000) and Crotty (1998), keeps the spotlight on power relationships within society so as to expose the forces of hegemony and injustice. Active learning is often understood to be about changing the dynamics of the classroom so that students may have more say in the content and processes of their learning (O'Neil and McMahon, 2005). In order to achieve this there is a need to address the balance of power between the learner and the teacher.

The theme of power within the university classroom was not something that I asked about directly during interviews or focus groups, however it did come up in conversation and during my observations. The archaeology lecturer admitted that he would like to be on a more equal footing with his students, especially during times when they are undertaking field work together, but he thinks for some learners this is not a comfortable situation:

"Even when you know them [the students] well there is still … a bit of a barrier going on ... which I couldn't get over … I am conscious that this is something coming from the students, you might want to be 'pally' but that doesn't necessary mean that they do … some students are comfortable with a remote relationship. I have almost given up with trying to get undergrads calling me [by my first name] because most of them don't want to and that's fine ... I think it can change the balance." (Interview with archaeology lecturer, Glasgow).

This suggests that the students are helping to create and sustain the divide between teacher and student and in turn perpetuate the traditions in universities where there is a hierarchical gap. The same lecturer spoke about the enjoyment he gets when his students take responsibility and ownership of their learning, and that when students are giving presentations or are involved in group discussions he tries not to intervene so that *"there is no power relationship … the person giving the presentation doesn't have more power over the audience and the audience are much happier about getting back and saying 'I don't agree with that'"* (Interview with archaeology lecturer, Glasgow). This lecturer is aware of the dynamics in the classroom and that when he talks most students will listen. He tries to counteract this by not saying anything during the student presentations, whereby allowing the students to discuss things amongst themselves, which may be more liberating for them.

The Spanish and adult education lecturer believed that learning and teaching in a university should be about challenging the power traditions:

"I still think the educator has a lot of power, and power is something that you should problematize and be explicit. So if I have the power to mark [assignments, exams etc.] then the reality is if I was a student I would be

playing a game." (Interview with Spanish and adult education lecturer, Glasgow).

This lecturer recognises that for some students, coming to university and gaining a qualification is 'playing a game' in which there are rules to be learned and obeyed. The reality is that the teacher often retains the authority to pass or fail a student which ultimately means as long as assessment retains a significant role in higher education, there will never be complete parity between student and teacher.

In higher education, it is often the case that the lecturer is seen to be the most knowledgeable person in the room and peer learning is something which is supplementary. I noticed in my observation notes from Iraq that the students did not really pay attention to thoughts and opinions which were expressed by their peers:

'The students didn't seem to learn from each other, they only noted down what the lecturer said ... my overall impression is that the lecturer was trying to implement what he believed active learning is and move away from traditional lecture monologues … the students were keen and eager to take notes when the lecturer was giving the introduction, however their attention waned as the lengthy discussions ensued. Perhaps they were more used to traditional lectures and felt that what the lecturer has to say is the only thing worth noting down.' (Observer notes, dentistry lecture, Iraq)

Students may be missing out on valuable learning if they do not listen to and take note of what other students are saying. It is true that in most education systems, students are taught to believe that the teacher is the only person in the room who has something of value to say. It is often in discussion with other students that breakthroughs in understanding are made or thought-provoking ideas are discussed. The traditions of power in higher education often dictate that because lecturers are the perceived experts in their subject, then they are the only people worth listening to.

5.2 Traditions in higher education

Traditions in higher education often set the tone for what goes on inside universities. Some of these traditions include: lecture style teaching, anonymity and silence from students in large lecture halls, formal assessment, the use of exclusive academic jargon. These traditions limit the development of progressive teaching approaches such as active learning which are often seen as approaches which challenge the status quo. The biology lecturer suggested that following 'traditions' in teaching means that learning experiences are too formulaic and that it is like following the *"cook book recipe"* approach to teaching in which *"you come in at ten o'clock and by one o'clock you have got your answer because you have baked your cake"* (Interview with biology lecturer, Glasgow). The idea that learning and teaching is like 'baking a cake' suggests that learning is done in a step by step process in which everyone has the same ingredients and produces similar outcomes which could mean that creativity and experimentation are stifled. Assessment governs a lot of what goes on in curriculum planning and learning and teaching. The archaeology lecturer said *" ... I don't know if exams at the end of the course encourage active learning"* which suggests that traditional exams do not 'fit' with active learning. This also highlights that students and lecturers may be so focused and driven by the need to pass exams that they see any attempt at active learning which includes interaction/participation as an unnecessary distraction rather than a way to achieve more meaningful learning outcomes.

One of the biology students said that for her, tradition is important:

"I think at university level it shouldn't be like a community outreach thing … there should be a bit of tradition … if you learn better by doing stuff, you shouldn't be doing an academic subject ... you shouldn't try and make it meet everybody's needs… you have got to take it as it comes." (Student focus group, biology students, Glasgow)

This comment by the biology student is possibly controversial and quite elitist. In the past, higher education was often the reserve of the young middle/upper classes and not non-traditional, working class or mature students. The student quoted above obviously feels that university is a place where students must

adapt and fit in to the system rather than the system adapting to meet their needs. However, many universities are now adopting widening access initiatives which create equality of opportunity for non-traditional students (University of Glasgow, (c), n.d.) and their recruitment and teaching strategies reflect this. Learning at university can be intimidating and overwhelming for new students, especially those who are first generation entrants or those who feel marginalised (Burke and Books, 2002). Higher education research has shown that students who engage in activities are more likely to have high-quality learning outcome (Krause and Coates, 2008). Progressive teaching approaches which move away from didactic, anonymous practices and place the student at the centre, may be more successful in encouraging students to be more engaged with their learning.

In Iraq the word 'traditional' was used by the human biology lecturer in our conversation, so I asked her what she meant by it:

"There have been too many wars in this country which has meant it has been a closed country. The political state influences the teaching and change is not rapid. Maybe workshops [can] try to change my colleagues but is will take 5-10 years, we need more access to the outside world." (Interview with human biology lecturer, Iraq)

Here the word 'tradition' seems to relate more to the traditions of the country and culture rather than specifically to the traditions of higher education. However, in Iraq there are undoubtedly post-colonial and post warfare implications which influences policy making and procedure both in society and universities. The effects of colonialism and the dominance of the Western higher education model has meant that many Iraqi institutions look to modernise by adopting Western style learning and teaching approaches (e.g. student-centred learning, problem-based learning etc.).

5.3 What stops teachers adopting active learning approaches?

If active learning is generally viewed as a 'good' way in which to approach learning and teaching then why is everyone not doing it? It is difficult to answer this question when there is no one consistent or coherent definition of what

active learning really means therefore if everyone is to ‘do it’ then there needs to be a consensus on what it is they are actually doing. I asked lecturers directly about what they felt constrained them in their teaching. I believe that many teachers have an idea of what kind of teacher they would like to be but are often constrained by issues they believe are out with their control. Hallett (2010) suggests that the constraints of a tight curriculum often mean that a teacher cannot match their ideology to their pedagogy. This may be true in terms of active or student-centred approaches to learning and teaching. Pressures of time, assessment, research commitments, lack of resources, over-stuffed curricula, and physical space in the classroom are often cited as barriers which stop teachers teaching the way they would like to (Toohey, 1999). Active or student-centred learning is often viewed as a utopian way of teaching (Nespor, 1987) where time and content coverage become less of an issue and more focus can be given to involving the students in the learning process.

Entwistle (1997), Entwistle et al. (2003) and Entwistle and Ramsden (1983) suggest that assessment remains a key driver in the construction and delivery of higher education curricula. During their interviews, the film and TV studies lecturer and the archaeology lecturer mentioned that traditional assessment (or Assessment of Learning, A*O*L) constrained them. The archaeology lecturer said that he favoured continuous assessment (peer and staff-led) rather than exams. The film and TV studies lecturer mentioned that he was frustrated that his students were so driven by assessment and that he thought their learning suffered because of this. He explained that his students failed to look at the wider picture of what they were learning because they were so fixated on assessment and asked him repeatedly if this would be ‘on the test’. Of course, it could be argued that students are merely operating within the conditions that the university has created, meaning that there may be a misalignment of learning and teaching outcomes with assessment methods.

In most of the active learning literature there are no principles which specifically guide assessment, no ‘active’ assessment; however, it is possible to draw a link between active learning and Assessment for Learning (A*F*L). Sambell et al. (2012) suggest that A*F*L actively involves students in their own assessment; this could be simply students evaluating their own work as they go along or take a more progressive approach such as student involvement in setting assessment

criteria. As well as assessment, Kain (2003: p. 104) suggests that teachers are often 'constrained by practical considerations such as students' expectations and experiences', and by 'institutional realities, such as class size'. Kain (2003: p.104) also argues that new teachers face particular theoretical implications in their practice such as difficulty in aligning 'classroom issues, theories of composition, and teaching strategies'. Often cited as a barrier to implementing active learning, the lecture method of teaching was mentioned as a constraint by the archaeology lecturer who said that *"…the whole need for lecture thing is constraining and there is nothing you can do"* (Interview with archaeology lecturer, Glasgow). Having to teach a large number of students at one time may present some difficulties for teachers who wish to take an active, participatory or student-centred approach, however, there is a variety of research which offers possible solutions to overcoming these types of constraints (Bligh, 2000; Cavanagh, 2011, Exley, 2010 and Gibbs and Jenkins, 1992).

As a possible solution to the constraints of lecturing to large numbers of students, the archaeology lecturer pointed out that he thought there should be a better *"ratio of group work to lectures"* and that although he thought there was a place for lectures, he believed that *"when it comes to interpreting [and] making use of the information … I think small group working is much more effective. I don't see how that's possible because of the money"* (Interview with archaeology lecturer, Glasgow). If universities were to provide more small group tutorials or seminars then they would need more staff and resources which of course means spending more money. Often active learning is viewed as an approach which encourages more small group work, so given the current situation in which university public funding has been cut drastically, this may prove difficult if it means an increase in staffing or accommodation.

The geography lecturer in Nablus spoke about his university's desire to develop more active learning and teaching practices but he was aware that this has to be done *"gradually"* because for many educators *" it's a learning process"* and that traditional approaches to teaching were within their *"comfort zone"* (Interview with geography lecturer, Nablus). This lecturer believed that the university's efforts to try and modernise their teaching practices was a good thing. However, he does say that it has to be done gradually and, as advocated by Kane (2004), that any change in the learning and teaching environment must

be culturally and contextually appropriate and sensitive in order for them to be effective.

The biology lecturer in Glasgow felt that if students were given less direction from teaching staff then the learning process may be more of an organic and rewarding experience. This may link to some of the characteristics of active learning suggested by Prince (2004) who suggests that being engaged in self-direction and discovery learning actually encourages students to approach their learning in a more meaningful way. From my observation in the biology lab, the students had three hours in which to explore a specific area; it was very formulaic and the pattern is repeated throughout every lab session in the semester. By allowing the students to formulate their own questions and follow their own lines of enquiry (within some limits) it could make the learning much more meaningful and student-centred. There are significant risks and implications when a lecturer hands responsibility over to the students; more things could go wrong and it could ultimately become more time consuming. However, students may be more engaged and motivated to develop other skills.

The number of student present often dictates how teaching time can be used. Student numbers vary between discipline and between years of study i.e. postgraduate classes may be significantly smaller than undergraduate classes. One lecturer talked about the time constraints on one particular part of a course she teaches with students who are pursuing a professional qualification and whom she only sees for two days of their degree programme:

"So you can't say to students 'take this question away, jot some notes down and we will talk about it' and I find that hard because you don't see that development … that's the bit I like and you don't see that over two days ... I'm not convinced that it's a good learning strategy." (Interview with urban planning lecturer, Glasgow)

This highlights the difference between teaching on a postgraduate professional course compared to a traditional undergraduate course. This lecturer appears frustrated because she does not have any follow up with her students. If she had more time with the students, then she may have felt more satisfied about the quality of what went on in the classroom. The same lecturer said that she felt

there were other constraints apart from time. She spoke about teaching a *"packed classroom"* in which there was no *"elbow room"* for students and that she found *"the level of both resourcing… [and] physical space … a huge problem." (*Interview with urban planning lecturer, Glasgow). Space and resources remain a contentious issue in university teaching and probably in many other teaching contexts. Teaching staff must be imaginative and inventive in order to overcome constraints.

Another constraint mentioned by lecturers was the need to incorporate technology into their teaching practice. In recent years the use of technology has become an integral part of the higher education system (Jones and O'Shea, 2004; Laurillard, 2002; Turney et al., 2009) and as a progressive teaching approach, active learning has been associated with this (e.g. EVS). Most of the responses about technological constraints were centred on the idea that it was frustrating to lecturers, that there was so much out there that they could do in terms of technology but they simply did not know how to do this or have the time. The dentistry lecturer mentioned that she would like to do *"podcast stuff"* (Interview with dentistry lecturer, Glasgow) but that she just did not have the time or staff resources to do this. In general, the lecturers appeared to believe that if they were to incorporate more IT in their teaching then it would improve their practice. However, it could be argued that the use of IT in teaching is a double edged sword; on one hand it can make teaching sessions more dynamic and interactive, and on the other hand it can be an unnecessary distraction if the user is unfamiliar with it.

The university environment and ethos was highlighted as a constraint by one lecturer who said that he thought his teaching could be *"a lot better if it was outside the university"* (Interview with Spanish and adult education lecturer, Glasgow).This statement is somewhat surprising because this lecturer clearly believes that teaching in a university setting is limiting, even stifling. This echoes with what Nesbit (1998) argued about hegemonic norms and institutional barriers in education, in that teachers (whether they are aware of it or not) are constrained. Adopting active learning and teaching approaches may also challenge some of the hegemonic norms that Nesbit is talking about. If teaching has been done in a certain way for many years then it becomes tradition, therefore it is necessary to challenge tradition in order to make change.

Challenging norms and traditions was also mentioned during one interview in Ghana. One lecturer felt that due to Ghana's colonial past, much of what is taught in his department does not reflect true African tradition:

"I believe our undergraduate program should be 70% of what our people outside the corridors of the university are doing in terms of music; that our students should be exposed to the indigenous music … we still have a curriculum which is 60% British music and 40% African that is where [we are] constrained." (Interview with music education lecturer, Ghana)

Post colonialism is located within a highly contested political and theoretical terrain. In recent years, it has been used extensively in a wide variety of ways to 'name' the residual, persistent and on-going effects of European colonization, but it has equally been criticized for deeply politicizing the academy (Rizvi et al., 2006). In the international settings, some of the responses to the question of teaching constraints were related to post-colonial issues (such as the response given by the music education lecturer previously). In terms of implementing newer more progressive strategies such as active learning, this may be difficult to achieve in an environment which is struggling to modernise or reflect its own indigenous identity. However, this is not just an issue which affects developing post-colonial countries. Many Western universities also struggle to shake off traditions in learning and teaching which are no longer effective or appropriate.

From my own experience of teaching in Iraq, it appeared that the education system was going through changes which were challenging the traditional methods of instruction. The human biology lecturer in Iraq said she felt that she is out on a limb when trying to implement student-centred learning in her classroom. She said that her colleagues were sceptical and their attitude to change was negative; however, she was keen to point out that, even with restrictions, it was possible for her to make positive changes in her teaching practice.

Political and wider societal constraints were mentioned by the geography lecturer in Nablus. He raised the issue that for him, striking the right balance between saying what he believed and saying what he was supposed to was problematic. He expressed his feelings of frustration that students and teachers

he knew had been imprisoned for expressing their political views. The highly tense atmosphere in which this lecturer teaches no doubt influences and constrains his practice. As a teacher and an activist, he said he was compelled to bring politics into the classroom despite the possible repercussions or maybe, on reflection, it was the situation and circumstances which he practised in that demanded it, rather than him forcing the issue of politics. Undoubtedly there is a huge gulf between being constrained by the physical set-up of a lecture theatre and being constrained by the threat of imprisonment for saying the wrong thing. However, what they have in common is the strategies that are used to overcome them. No matter what barriers there may be, teachers are capable of being very resourceful and imaginative. The same could be said for changing learning and teaching approaches so that they are more active or student-centred in that, it is not *what* teachers do that really matters (although this is important of course), but it is *why* teachers choose to do what they do that is really at the heart of understanding active learning.

Lack of confidence was cited as a constraint to implementing active learning. One lecturer said that when he started teaching he was wary or even reluctant to make changes in the curriculum or how it was taught, but now he felt he had a *"different attitude to risk"* and that *"it may be a confidence thing, maybe I know a bit more or just as much as my colleagues"* (Interview with physics lecturer, Glasgow). In relation to active learning, Richardson (2005) and Kugel (1993) suggest that teachers' approaches may change from 'teacher-centred' to 'learner-centred' the more experienced they become. A study conducted by Åkerlind (2003) describes the idea of 'teacher comfort' meaning that there is a change within the teacher, and as they become more confident teaching becomes less effortful. Over time, it may become more natural for more experienced lecturers to find their own niche in teaching which allows them to express their own personal style. In my interview schedule I included a question which asked how long the participant had been teaching, this allowed two things to happen: one, it was an introductory question just to allow me to get to know the participant; two, it allowed me to explore whether the length of time they had been teaching had any bearing on their understanding or practice of active learning. The majority of my participants had been teaching for more than 5 years, some for more than 10 or 15 years. I did not interview any new teachers

as my sampling mainly targeted experienced, award winning or highly regarded educators. If I had interviewed new teachers I may have been able to identify a trend which suggested that new teachers are less likely to adopt active learning strategies.

This section highlights that there are many things which impede the progression of a teacher's practice, especially when trying to adopt an active or more student participatory learning approach. There appears to be both physical constraints as well as abstract constraints which teachers feel impede their practice. A study carried out by Michael (2007) said that there are three main categories into which constraints may fall: a) student characteristics i.e. students being unwilling, unprepared and immature, b) teacher characteristics i.e. teachers being unprepared and inexperienced, and c) pedagogical issues i.e. the physical set-up of classroom, large amounts of content to be covered, class size and lack of resources. There are some things which are out with the control of teachers and therefore, if teachers are unwilling to work around those issues then changes will not be made. Abstract constraints such as institutional hegemony or post colonialism may not be visible but very much affect how learning and teaching are implemented. Physical constraints such as class size and student numbers are visible and good teaching or active learning seems to hinge on a teacher's ability to overcome these kinds of barriers no matter the context.

5.3.1.1 Observations of constraints

As well as asking lecturers what they believed constrained their teaching, I also noted down what I perceived to be constraining active learning during my observation. Active learning is often associated with moving about and physically being active, therefore one of the perceived barriers to this can be the layout of the teaching space. The environment in which the learning takes place can no doubt have a huge influence on how learning and teaching is implemented. This section consists of just my observations because I was acutely aware of how the physical space influenced or had the ability to change the learning and teaching process.

When I entered the room at the University of Cape Coast, I expected the teaching to be more relaxed and informal because it was in an office:

'This class was held in a very small office. There were no desks for the students to use, so they had to balance books and notepads on their knees. The teacher had to stand as there were no spare seats (he gave his seat to me). The teacher stood for the entire time which made him assume a very traditional 'lecturing' stance in front of the students. For the majority of the time the teacher spoke to the students, only towards the end of the session did the teacher begin asking questions and the students began responding. The office where the lesson was held was tiny; I was almost touching knees with the students. I was aware that my presence in the room could not be ignored and subsequently I felt that I may have completely changed the dynamics of the lesson by being there (Hawthorne effect?).I observed a similar set-up of class in Glasgow in the physics tutorial in which the lesson was also held in the teacher's office. I think this set-up most definitely changes the 'feel' of the lesson and makes it more intimate. However, the lecturer in Ghana still chose to deliver the lesson in quite a traditional lecture style which I surprised me.' (Observer notes, film and TV studies, Ghana)

I think I was most surprised at the formality in which this lecturer taught in such a small space. On reflection, I think there is no doubt that my being there influenced what went on. It is possible the lecturer stuck to the more traditional and formal way of doing things as he thought that was what I was there to observe; however, it may have simply been the way he usually taught.

In contrast to the tiny office set-up, I observed a huge lecture in Ghana:

'This was a huge class (180 students). The teacher used traditional lecturing techniques, however, he did invite questions and comments and moved around the room to try and hear what the students were saying. There was no microphone or PA system, so at times it was difficult to hear. This was a lecture on an epic scale. The room wasn't tiered; therefore it felt like a sea of students were seated in front of me. The teacher did interact with the students occasionally, but when he did this seemed to encourage other students at the

opposite end of the room to chat (probably because they couldn't hear what was being said).' (Observer notes, sociology lecture, Ghana)

The lecturers in both the scenarios mentioned above often seemed to struggle to interact with the students or really include them in what was going on. This could be because of physical set-up of these particular rooms (too close for comfort or too big and vast) or because their natural teaching styles were not conducive to student participation or interaction.

Being an observer allowed me a unique perspective on the visible constraints which were affecting the learning and teaching. At times I felt an 'outsider', almost an intruder in some instances. However, as I was neither a student nor teacher, I was afforded a very good vantage point . Being in these particular classrooms and sitting amongst the students, I had a sense of how they felt. I often struggled to hear or became distracted for a number of different reasons. I became frustrated when things did not appear conducive to good learning and teaching. The set-up of both classrooms I observed were so different yet they both presented what I believe were similar constraints; they simply were not comfortable environments in which to learn.

5.4 Student motivation

I did not ask my interviewees any direct questions about motivation; however, I was not surprised that it emerged as a theme. Motivation is key in determining why and how students engage with higher education. Paulsen and Feldman (1999) suggest that there is a strong link between students' epistemological beliefs (how we know what we know) and their levels of motivation. Paulsen and Feldman suggest that knowledge is complex and gradually acquired, and that ability can be enhanced. Theall and Franklin (1999) and Chickering and Gamson (1987) argue that teacher influence has a substantial bearing on student motivation.

One student participant studying classics at Glasgow said that it was the teacher's duty to make the students want to learn. Another group of students I interviewed were adult learners who were taking part in an evening Spanish language course and said that the teacher's approach to learning and teaching

was a motivating factor. The motivations of the adult learners were slightly different from the undergraduate students whom I had interviewed. The adult learners were at a different stage in their lives and had come to learn Spanish for a variety of reasons. One participant's response in the Spanish focus group indicated that it is a combination of the timing of a class, a supportive learning environment and the learning and teaching methods employed by the teacher which substantially influence and motivated her as an adult learner.

The biology students who took part in a focus group were all undergraduates. They mentioned that their motivation was figuring out the logic of science, that it was like being given a giant puzzle to solve and that itself was hugely motivating and satisfying. Furthermore, the same students said that their motivation was influenced by an intrinsic need to deepen their knowledge about their subject. Students' motivations and attitudes affect how they approach their studies, and if, as suggested by the biology students that motivation is intrinsic, then teaching methods may not be of significant importance. Intrinsically motivated students may be actively learning on their own without there being any particular student-centred teaching approach being employed.

The veterinary medicine lecturer spoke about the impact of fees on student motivation to learn. He mentioned that in the Vet School there are many postgraduate students from the USA who pay £22,000 per year to study, he believed this was why they were the most focused students. This lecturer seemed to believe that students who pay fees, and especially those who pay extremely high fees, are more focused than those who receive their education for free. Arguably, paying money for education has a potentially huge influence on the motivation of the students. This relates to the discussion around the commodification of education by Collini (2012) and McFarlane (2004) who argue that higher education is evolving and in danger of becoming a transaction between a service 'provider' (the university) and a service 'end user' (the student). Conversely, the same lecturer also said that, despite a lot of postgraduates being motivated because they had paid high fees, the motivation of vets in general is often intrinsic, he said *" ... I wanted to do that [be a vet] from the age of five years old, a lot of vets are like that"* (Interview with veterinary medicine lecturer, Glasgow).

It may be possible that the motivation of many students studying vocational degrees stems from a very early age; it is as much a passion as it is a career choice. Similarly, the idea of vocational motivation was discussed by the urban planning lecturer who argued that her course (real-estate planning) attracts a lot of students who are mature, already working the in the field and desire another postgraduate qualification to progress their career. This kind of motivation is possibly very different from that of the undergraduate school leaver; for example, learners who are seeking a professional postgraduate qualification may approach their learning with a 'skills' focus. However, this initial focus on developing what Collini (2012) calls 'instrumental goods' e.g. professional skills, could change depending on the experience the student has and as they progress with their learning they may become more focused on 'intrinsic goods' such as self-fulfilment.

The motivation of more mature students was also discussed by the Spanish and adult education lecturer. He said he felt spoilt because he mainly taught mature learners who he believed are easier to engage. He suggested that more mature students come with a different approach and attitude to their learning which would subsequently influence their motivational levels. Moreover, the same lecturer said that:

"The prior degree of interest [of the students] will affect how you approach active learning. I would go back to my basic philosophy that education should be based on dialogue. So the first thing to do is find out about your students, find out where they are coming from. I ask 'are you here because you want to be here? '... If you are here because you couldn't get on the course you wanted this is fine but it helps me to know where I'm coming from." (Interview with Spanish and adult education lecturer, Glasgow)

This could indicate that the teacher will or should adapt their teaching methods according to what the students' motivation is. For example, if the student is simply there to make up degree credits and not there for the love of the subject, then the teacher may alter how they teach. Also, the lecturer appeared to think it is important the teacher engage in a dialogue with the students to find out their motivations for being in the class as this will determine how the class will develop and evolve both from his and their perspectives.

Student motivation has the potential to significantly influence the practice of active learning. If a student is intrinsically motivated then they may not rely on any student-centred or active teaching approaches to stimulate their learning. It is also possible that by being intrinsically motivated, students are taking responsibility for their learning which is cited as one of the characteristics of active learning (Berry, 2008; Denicolo et al., 1992; Rogers and Freiberg, 1994). Motivation may also influence whether students adopt a deep or surface approach to their learning which in turn influences what goes on in the classroom. As was said by the Spanish and adult education lecturer, if a teacher knows how the students feel about their learning and why they have chosen to be there this may impact on what kind of approach they take as educators. In any learning situation, there will be a variety of students with different motivations for being there; it is impossible to envisage a classroom where students are one homogenous group with identical motivations. It is hoped that reflective teachers would adapt their teaching strategies in response to the needs of their students; depending on those needs, these teaching strategies may include an active learning approach in which students are involved in self-directed learning tasks or collaborative group work.

5.5 Active learning in different disciplines and vocational subjects

Rowland (2000) argues that an academic's commitment to their subject infuses them with the values embodied in that subject. Discipline differences arose during several observations and from some of the responses given during interviews. It became possible to identify some differences in what participants said and how they interpreted active learning, according to their disciplines. Some subjects incorporate practical elements such as field work and professional placements in their curriculum, therefore it may be easier for teachers and students to demonstrate the 'active' part of active learning. The dentistry lecturer expressed:

"I know there are a lot of things I have learned like anatomy for example, and I would learn where this blood vessel was in relation to this muscle, but … I can learn that, but then when you went into dissection and cut it out you would never forget it. So if you have gone and physically dissected it out then it

would immediately stay in my brain…you remember the experience" (Interview with dentistry lecturer, Glasgow).

What the dentistry lecturer said may directly relate to the 'physically' active interpretation of active learning. Many definitions of active learning rely on principle that students need to be physically experiencing something to be actively learning. Many vocational degrees incorporate experiential learning which may make students look more active in their learning.

In some observations, I noted that there seemed to be a difference in the behaviour of students between different subjects and disciplines. In biology for example, the students took part in labs which were designed in such a way that it encouraged them to work together on learning activities together, so for me as the observer, it was easy to identify the physically 'active' part of active learning. Also, the students all wore the same lab coats which in my view changed the dynamics of the classroom and made it appear like the learning was approached collegially:

'The use of lab coats in this observation was the first thing to strike me as different. The division of blue lab coats (staff) and white lab coats (students) was something which I had never come across before. I was told by one of the demonstrators that the reasoning behind this is safety; in case there is an emergency in the lab staff can be quickly identified in their blue coats. The wearing of the white lab coats seemed to give the students a sense of collegiality and equality with each other. When I was in the lab I felt that this group had an identity and they all appeared to be familiar with each other. I don't know if this was due to a combination of the lab coat 'uniform' or the fact that the practical nature of the labs almost forces the students to interact with each other.' (Observer notes, biology lab, Glasgow).

Something similar was observed in dentistry:

'The students wore white tunics and the lecturer wore a black tunic with her name and professional title sewn onto it. This, like the biologists, highlighted the divide between teacher and student, but also forced the students to appear (on the surface at least) like one equal, unified group.' (Observer notes, dentistry, Glasgow)

Of course, on reflection it may be that the lab coats and tunics had no significant effect on the students and their learning, however, these were my first encounters with students who wore a 'uniform' and clearly at the time I felt that this had an effect. I also began to realise that there were some differences emerging between 'vocational' degrees e.g. dentistry, veterinary medicine etc. and non-vocational degrees e.g. classics, English literature etc. There seemed to be a focus on 'producing' professionals in the vocational subjects:

'As with dentistry, I feel that the vets and veterinary-educators are driven and motivated in different ways from those say in arts or social science. Their need to be accurate in their learning seems to come from their need to be accurate in their practice. With other subjects there is room for negotiation in terms of getting the correct answer and there is more than one known 'truth' about an issue, however in veterinary medicine and dentistry the stakes maybe are just too high. Of course there will be different opinions on how to best treat a disease or decide on patient care, but ultimately vocational learning is less forgiving and I believe this translates in to how the subject is taught.' (Observer notes, veterinary medicine, Glasgow)

McCune and Hounsell (2005) suggest that different disciplinary contexts each possess their own norms, i.e. language and practices. They also argue that there are particular 'ways of thinking and practising' in subject areas that determine 'the richness, depth and breadth of what students might learn through engagement with a given subject area in a specific context' (McCune and Hounsell, 2005: p. 257). Ways of thinking and practising also includes students 'coming to terms with particular understandings, forms of discourse, values or ways of acting which are central to mastery of a discipline or subject area' (McCune and Hounsell, 2005: p. 257). In my observation of a dentistry session at

Glasgow I noticed that the tutor seemed very direct, almost abrupt, in the theory seminar before the practical clinic:

'During the tutorial the students were very subdued and hesitant. The lecturer took no prisoners when she was looking for answers. She often responded 'no that is not right….does anyone have a better answer?' To me this seemed quite brutal, but then I am not a dentist and I do not have people's lives in my hands. As with the vets, I feel that the tutor is searching for the 'right' answer and it is the job of the students to provide that answer" (Observer notes, dentistry. Glasgow).

As has been highlighted before, some vocational degrees may be more prone to encouraging convergent thinking because they are taught with a 'find the right answer' approach where there is necessity for accuracy and a wide knowledge base. Of course, this may be an over simplification and is based on only one observation in each of these subjects discussed, however as argued by Rowland (2000) and Trowler and Cooper (2002) there are discipline specific 'Teaching and Learning Regimes' and disciplinary ideologies - or frameworks of values – which shape how a teacher teaches a subject.

The identities which are formed in vocational degrees e.g. the 'dentist' or the 'vet', seemed to permeate into the ways in which both staff and students think. This influences how a lecturer approaches their teaching and what students expect from their learning, which again relates to McCune and Hounsell's (2005) ways of thinking and practising. A good example of this 'identity' was evident when the dentistry lecturer in Glasgow said *"I am not a teacher, I am a dentist"* (Interview with dentistry lecturer, Glasgow). Trowler et al.'s (2012) updated work based on the work of Becher (1989) 'Academic Tribes and Territories', argues that subject disciplines define people and identify them as members of academic 'tribes'. These 'tribes' are said to share a coherent set of practices, values and standard approaches to activities like teaching and research. However, Trowler et al. (2012) are keen to point out that due to an intense focus now on interdisciplinary work these tribal identities may be slightly more diluted.

The students also gave the impression of how important professional identity is in vocational degrees as I highlighted in my observation:

'The difference in my experience of the tutorial and the practical session seemed light years apart. The tutorial was very dry and the atmosphere was very tense. I am aware that I may have added to this because the students had no idea who I was and maybe thought I was there to observe them. However, the clinic was buzzing with anticipation and a real sense of urgency and professionalism. The students seemed to morph into dental professionals the moment the patients began to arrive and I could see them standing up straighter and appearing to grow in confidence. This was really interesting and I could relate to this as I believe I did the same during my teacher training placements when my class walked in' (Observer notes, dentistry, Glasgow).

Lave and Wenger (1991) suggest that learning is a process of 'becoming' therefore students in vocational degrees are in a very fortunate position as they are given the opportunity to 'act out' their learning during practical sessions, placements and work-based learning. It is easier to see how this type of experiential learning looks and feels more 'active' because students are given time and space to put the theory which they have learned into real life practice. This is not without its pressures; however, it did seem to add an exciting dynamic to the learning. The students appeared transformed in their role from undergraduate learners to novice professionals within the space of a few minutes. Developing as professionals was explicitly mentioned by the dentistry lecturer in her interview, she said *"We have a set of professional principles and ethics and moral codes and they would always be in my teaching as well, and even though I am teaching about paediatric dentistry, I'm also teaching them how to be a professional"* (Interview with dentistry lecturer, Glasgow). From this it is clear that this lecturer believed that being professional and teaching professionalism underpins her teaching practice.

The veterinary medicine lecturer said that he did not understand people who chose to study non vocational degrees. He mentioned that he had a friend who had studied classics and he could not understand that someone could spend three years on something they were not going to use. His response highlights that he, and possibly those in vocational subjects more generally, see university

education with a utilitarian slant; the outcome or output appears to be what is valued the most. This links with the some of the neoliberal discourse which surrounds the commodification (Collini, 2012; Olssen and Peters, 2005; Poon, 2006) and massification (McFarlane, 2004) of university education.

It is clear that different disciplines have the ability to affect how learning and teaching is undertaken by both students and teachers. Different disciplines have specific ways of thinking and practising which have certain implications for active learning. Firstly, vocational degrees which include experiential or practical learning may look and feel more 'active' in the sense that there are opportunities for students to demonstrate their knowledge and skills in a physical way. Secondly, by necessity, the curriculum in vocational degrees has active learning in-built, though the particular way in which different teachers carry this out will vary. This begs a further question: are there better or worse, higher or lower-quality active learning experiences which teachers can design/offer?

5.6 Themes from international settings and international teaching

Some of the emergent themes from the data were particular to the international settings and to responses given by UK teachers about teaching internationally. In this section most of the evidence comes from time spent in Ghana which may or may not be a coincidence as this was where the most data was collected internationally. Vavrus et al. (2013) and Lammers et al. (2010) argue that it is important to understand educational values, traditions, learning environment that exist in different cultures and for me, considering cultural influences on the practice and understanding of active learning was a fascinating part of this research.

Having always lived and studied in Scotland, I had a very Scottish/Western understanding of what knowledge is and what active learning means. I asked one lecturer in Ghana a direct question about cultural influences on learning and teaching. This was not one of my original interview questions; however after having spent time observing learning and teaching in Ghana, I felt I had to explore an issue which I had observed on a number of occasions; the ‘yes

master' chanted response to every teacher who asked their class 'do you understand?' I put this idea to the film and TV studies lecturer but he swiftly refuted it saying *"I'm not so sure about the cultural connection" (Interview with film and TV lecturer, Ghana)*. Coming from a Western background of education, I was acutely aware of how different the dynamic in the university classroom was in Ghana compared to Glasgow. The lecturers seemed to continually look for a response from the students as to their understanding, however not once did the students say anything else other than 'yes'. In gaining this response from the lecturer, my own understanding about cultural influences on learning and teaching shifted. I thought that it was the fault of the students and the teachers that their behaviour did not match my own ideals; however I now realise that I should not expect to see my own beliefs and values replicated outside of the context in which they were formed (i.e. the UK system of higher education). Barrington (2004) suggests that there is a tendency of Western societies to herald one or two educational qualities over others (e.g. individualism rather than collaboration; independence rather than dependence). Furthermore, Burnapp (2012) suggested that culture is about identity, values and beliefs and that international students and international teaching styles do operate from a deficit position just because they are different from Western educational values.

It became clear that my ideals about teaching may not be shared with other learning cultures; however, in my short time in the different international locations, I do believe I saw students taking a reproductive rather than critical approach to learning (although this can also be the case in Western higher education settings). Critical thinking is outlined as one of the key characteristics of active learning (Berry, 2008; Bonwell and Eison 1991; Denicolo et al., 1992; Rogers and Freiberg, 1994) therefore it is important that teachers provide students with opportunities to develop these skills. It is also important that teachers, whether in a UK or international setting, adopt a critical approach to their own practice so as to demonstrate what being 'critical' actually means in academia.

During this interview, the Spanish and adult education lecturer in Glasgow discussed the challenges he had faced when trying to make his teaching philosophy 'translate' into a Middle Eastern context. He said that there were problems in the dynamics of the classroom and specifically women working

together with men. The lecturer said that he felt the first time he taught he became aware of these issues and subsequently on his return visit he asked the students outright what they thought they could do together to improve the dynamics and the learning experience. He said that having an explicit discussion about the role of culture and Islam in the classroom enabled everyone's opinion to be heard. One particular group of women expressed their wish to continue to work in an all-female group; however the lecturer said that within a day the women had actually chosen to reintegrate themselves into the bigger group which was mixed gender. By deciding to tackle the issues head on, this lecturer was able to turn the circumstances to his advantage and to the advantage of the learners; moreover, what this really shows is that culture is never static; it is fluid and adaptable.

In my observations of teaching in Ghana, it appeared to me that lecturers would often go into 'preach' mode and would render the students both inactive and restless. Bligh (2000: p.4) argues that lectures can often feel like 'sermons' and that they are not the most effective way of eliciting student contribution because they represent a conception of education in which 'teachers who know' give knowledge to the students who do not have anything worth contributing.

'Having spent time in the churches and classrooms in Ghana, I have found that there are many similarities between the congregation and the classroom. The preacher/teacher stands at the front and bellows his message whilst the audience nods along' (Observer notes, music education, Ghana).

Furthermore, I also observed a two hour long Sociology lecture at University of Cape Coast where the lecturer 'preached' to the students as if they were at church, and warned them about the immorality of corruption. For me, this example seemed to blur the lines between religion and education. On reflection, my Western assumption about the 'best' format for learning and teaching may be biased and I realise that in some places in the world, this kind of teaching is not out of the ordinary. However, evidence from two research projects strongly suggested that having 'interactive windows' and high degree of student participation leads to better learning (Huxham, 2005; Revell and Wainwright, 2009). Furthermore, Revell and Wainwright (2009: p.209) argue that 'as large-group lectures are unlikely to be replaced any time soon, making them as

participative as possible is one way to ensure that higher cognitive functions are at least partially acquired'.

Storytelling emerged as a theme during some observations in Ghana and I had not previously considered it as a teaching technique. A few of the lecturers I observed in Ghana wove their own personal or folk stories into their teaching, often with a moral slant. When this happened, I observed the students perk up and pay the most attention. This gave the impression it was the human and real aspects of the teaching which interested the students the most. This could either be because they could relate the learning to their own lives or that it was a familiar way of learning for them in school because often teachers in schools use stories to illustrate points:

'I am beginning to recognise the use of anecdotes is prevalent in a lot of classes. It often appears to be the only time when students really seem to pay attention. The use of storytelling in the classroom may have roots in tribal oral storytelling tradition in this part of Africa. The use of humour is often included in these stories. This may be a sweeping generalisation as storytelling is used by teachers all over the world; however there seems to be a pattern to how these stories are told in Africa. The stories always seem to revolve around family, values, honour etc.' (Observer notes, music education, Ghana).

This use of storytelling was also apparent in the English class I observed in Ghana:

'*The lesson itself felt a bit like a show that the teacher was performing, which of course could have been for my benefit. The teacher seemed to enjoy entertaining the students with stories and anecdotes of times when he has presented (both successfully and badly). This was the time when the students seemed to pay the most attention'* (Observer notes, English lecture, Ghana).

Storytelling in teaching may be contextually and culturally specific, for example the highly moralistic stories told in Ghana would arguably seem out of place in Glasgow. My observations were that when lecturers based their teaching on

telling stories, students were at their most attentive: the question is did the stories engage students in active learning or were they simply serve as an effective means of conveying information much like Freire's notion of banking education?

The issues raised in this section add to the discussion about active learning because they highlight that although active learning is predominantly understood to be a positive, progressive and dynamic approach to teaching and learning, there are always circumstances where it may not be appropriate. Active learning and learner-centred pedagogies are mainly located in Western literature and Western practice (Jordan et al., 2014; O'Sullivan, 2004) therefore they may not be appropriate or translatable to developing countries. However, as argued by Jordan et al. (2014) and O'Neill and McMahon (2005), learner-centred pedagogies hinge on there being a significant paradigm shift away from teacher-centred practice and towards a student-centred approach. This shift can be difficult not just for teachers in developing countries, but also for teachers in the West.

Vavrus et al. (2013) argue that policy and pedagogy must take into account the social, cultural and material constraints in which teachers work. My observations led me to question whether the principles of active learning and student-centred learning which are outlined in Western literature, may actually clash with what Vavrus et al. (2013) call local (e.g. sub-Saharan African, Middle Eastern) conceptions of authority, obedience, teacher-student relationships, individualism and competition versus collectivism and cooperation. If active learning does clash with these notions, should this just be accepted or is it the job of educators to challenge this? I would argue that it is possible to remain culturally sensitive and still challenge traditions and conventions.

5.7 Summary of Chapter 5 - Emergent Themes

This chapter explored the emergent themes which provided divergent accounts of active learning. As argued by Williams (2008: p.249) 'Emergent themes are a basic building block of inductive approaches to qualitative social science research and are derived from the life worlds of research participants…' As a researcher, I believe emergent themes are vital and equally as important as a

priori themes because they ‘provide rich and detailed insight into the micro and meso levels of intersubjective experience’ (Williams, 2008: p.249).

The emergent themes included in this chapter add value to the discussion around the practice and understanding of active learning. As this research was guided by critical theory, it was important to identify issues of power. To the best of my knowledge, there is no literature which specifically investigates how institutional and classroom power structures influence active learning. At certain points, the themes of power and tradition seemed to be interconnected and were difficult to separate out. The main conclusion from these sections was that if progressive teaching approaches such as active learning are to be effective, then there has to be a shift in power from teacher to student. This shift does not mean that teachers should simply devise learning activities which make the student look ‘active’, it should be a shift in paradigm which places the student at the centre of the learning process with a sense of agency and control over what and how they learn.

This chapter then investigated the perceived constraints which hinder the practice of active learning. It identified that there are both physical and abstract constraints which stop teachers adopting more active or participatory teaching strategies. The main conclusion in this section was that the probability of teachers adopting active learning strategies rests on their ability to overcome these barriers. As well as perceived teaching constraints, there was also discussion around how student motivation can influence the practice of active learning. It was suggested that intrinsically motivated students may not rely on any student-centred or active teaching approaches to stimulate their learning. Paradoxically, it was also suggested that by being intrinsically motivated, students are demonstrating some of the key characteristics of active learning such as taking responsibility for their own learning.

This chapter also identified key areas in which active learning was perceived differently according to discipline. It highlighted that different disciplines instigate specific ways of thinking and practising which have certain implications for active learning. In certain instances, the teaching of vocational and science related subjects had the ability to look more ‘active’ because they have experiential or practical learning built into their curriculum. However, this in-

built practical learning - such as learning in labs or time spent on rotation in surgery - may naturally appear to promote to some characteristics of active learning (e.g. students being involved in activities), but not so obviously others, such as critical thinking and student ownership of learning.

The themes specific to international settings challenged my thinking about what it means to be actively learning. The storytelling I observed in some lectures seemed to really capture the students and engage them, this type of teaching is quite far removed from the 'activities' which are usually associated with active learning but nonetheless it seemed effective. Progressive pedagogies such as active learning, often cited as Western approaches, may not translate into non-Western contexts due to many issues such as gender mixing and norms and behaviours (e.g. deference to teachers) which are particular to certain parts of the world. However, as previously proposed in the section investigating perceived constraints on active learning, for active learning to be effective it is deemed the responsibility of teachers (and to a certain extent students) to challenge conventions and traditions which impede the development of learning and teaching.

Chapter 6 - Personal Reflections

I decided to include this section in the thesis to outline some of the events which could not be included in the findings and discussion, but which nonetheless contributed to the development and outcomes of this research project. This research has taken four and a half years to complete (Sept 2009 - March 2014) and during that time there have been several highs and lows. This section presents details of one conference workshop which shaped my thinking, some of my own reflections of being an 'observer' and some of the unexpected things I encountered whilst completing data collection.

6.1 RAISE Conference 15th-16th September 2011

In September 2011 I presented a workshop at the Researching Advancing and Inspiring Student Engagement (RAISE) Conference in Nottingham. The theme of the conference was 'Engaging Students in Challenging Times'. I created the workshop to help explore a difficult and challenging question which had arisen from my research; 'Do you have to be physically active to be actively learning?' The term 'active learning' is problematic because there are several ways in which it can be interpreted; constructivists advocate that active learning is the physical demonstration of learner engagement i.e. projects, practicals, discussion groups etc., whereas cognitive theorists suggests that active learning is an internal process which happens in the mind of the learner (O' Neill and McMahon, 2005).

The aim of my workshop was for me and the participants to a) explore and challenge conceptions of active learning, b) discuss whether or not a student has to be physically active in order to be actively learning and c) identify implications for teaching and learning in higher education. I asked the participants to work in small groups and draw rather than write their answers in the style of the popular education method 'systemisation' which encourages participants to reflect, interpret and make sense of practices which are constantly 'fluid, unstable and changing' (Kane, 2012: p.78). I chose to do this because I wanted to go beyond the words and semantics of active learning and explore what people really meant when they said that they taught using an active learning approach.

The outcomes of the workshop helped me to see beyond the over simplification of active learning which had been present in some of the literature (e.g. active learning is simply the opposite of passive learning). Most participants came to the conclusion that a student did not need to be physically active to be actively learning, however they did agree that it was much easier for them as teachers to see if their students were actively learning if there group work or collaborative tasks going on. The discussion and outcomes of this workshop significantly informed this research project and helped me to formulate the two new conceptualisations of active learning which will be outlined in the summary section.

6.2 The Unexpected

During my observations I was privileged on many occasions to witness what I thought was inspiring and effective teaching. I found the experience of observation extremely rewarding and almost every observation challenged my assumptions and prompted me to consider a new aspect of active learning. Being in a classroom and observing the learning and teaching first hand was invaluable because it allowed me to pick up not only what was being taught i.e. the content, but also how the students reacted and what it felt like to be in that room at that time. My observation of a dentistry class in Iraq was particularly extraordinary in that I was witness to a student protest/walk out:

'The lecturer entered to a packed out classroom. As soon as he entered he was approached by two male students who conversed with him in a mixture of Arabic and Kurdish. The lecturer barely got to unpack his laptop when the conversation appeared to become quite heated. At that point I was aware something was not quite right as I could hear the lecturer referring to my presence in the classroom and the male students shook their heads and continued to argue with him. There then followed a heated exchange with some other students who were sitting in the rows. The lecturer addressed all the students in English that 'this is not the time'. We were now 15 minutes into the lecture time. After much discussion, about 20 male students got up and walked out the room in what looked like a walk out/protest. One student said to me as he passed "you are wasting your time; you will never change this place!" The

lecturer waited until the students left, introduced me to the class and began his lecture in English. Speaking to the lecturer after the class, it turned out that the student mini-revolution was due to a decision that the Dean of the College of Dentistry had made two days previously. The Dean had issued a statement to the students saying that all students of the college must wear white trainers when in the building. He also said that women must have their hair tied back completely. These new rules extended to all parts of the college, not just clinical areas but lectures too. The Dean had subsequently made an impromptu visit to several classes the next day and sent students home who were not following the new rules. The students were furious and said that the Dean was acting like a dictator and that it was an attempt to control the student population and, more importantly, it was about the chastising women who chose not to wear head scarves'(Observer notes, dentistry lecture, Iraq).

For me this was an extraordinary experience, as I noted:

'Witnessing this first hand was like winning the lottery for me as a researcher. I was quite impressed that the students felt that they had the power to voice their concerns. I thought that the hangover from the previous regime would mean that people would not be as vocal about their rights, I was wrong'
(Observer notes, dentistry lecture, Iraq).

The boundaries, which I thought would be quite strictly set out and adhered to in the University in Iraq, seemed to be challengeable and negotiable. Most of my own understandings about Iraq were based on Western media portrayals and were therefore very limited. I assumed that students would not challenge authority based on the previous dictator's regime that had significantly influenced the Kurdistan Region of Iraq. The students appeared to feel so strongly about how they were controlled in their learning environment that they were willing to demonstrate no matter if I (the invited guest) was present. I was extremely impressed by the students' show of strength and unity; however I was aware that it was only males who decided to walk out on protest. I believe this was a reflection of deeper patriarchal norms which are embedded in this part of the world.

The main purpose of my being in the dentistry classroom in Iraq was to observe active learning. The observation notes and subsequent reflection appear to stray from active learning to an area more resembling education for social change. Of course, this is a very different area of research, however it is possible to relate what went on that day with some of the characteristics of active learning and student-centred learning (SCL) as suggested by Berry (2008), Denicolo et al. (1992), Gibbs (1995), Lea et al. (2003) and Rogers and Freiberg (1994) who all argue that students should take ownership and responsibility over their learning. This begs the question: if students are taking responsibility and ownership of their learning then surely they must have a say in what the rules are. Furthermore, the student 'walk out' I witnessed relates to the previous section in this research which explored what students and teachers thought the purpose of a university education was. Is it about retaining the status quo in society or is it about challenging hegemonic forces and pushing boundaries?

In Glasgow, the unexpected came in the form of slight disappointment:

> *'If I am honest I was slightly underwhelmed by this observation. I think because I was impressed by the answers the lecturer had given me in his interview prior to this observation i.e. "some people are just born teachers" and "being a good teacher is just innate in your person". I thought my observation of this class would bring a new and exciting dimension to my research. In his interview, the lecturer appeared very confident in his ability to teach effectively and had given me the impression that his teaching techniques would be new and exciting'* (Observer notes, veterinary medicine, Glasgow).

The approaches adopted by teachers in higher education may be constrained by a number of factors, however, I expected more from this particular observation. As there were only six students present and they were experienced and knowledgeable fifth years, I thought there would be more learner participation and certainly more learner autonomy. This observation led me to think about what Hallett (2010) said about teachers having to practice what they preach and also the mismatch between espoused and actual practice as outlined by Argyris and Schon (1974). The lecturer had outlined his teaching philosophy to me in an earlier interview which appeared very inspiring and self-assured therefore I was

disappointed that his teaching did not seem to incorporate anything dynamic or indeed active.

6.3 Observer Involvement

The experience of being a researcher and an observer was new to me and I had mixed feelings about it. I followed the advice of Lewis (1997) and kept track of what was happening and noted down my own impressions and participants' non-verbal behaviour. In some classes I found the content of what was being taught very interesting and often found myself shifting from my role as the observer into the role of the learner. Cohen and Manion (1994) call this a shift from researcher to 'participant–observer'; participating to some extent in the activity being observed. I noted in one observation:

'Another thought which surprised me was that I really enjoyed this class. I don't know if it was just because I enjoyed the subject being discussed (I studied this text for my standard grade English at school) or that the lecturer was very engaging. In all my observations I have found it difficult just to observe and not to learn which made me question whether or not some people (such as myself) are simply programmed to enjoy learning no matter what is being taught or how it is delivered' (Observer notes, English literature lecture, Glasgow).

My presence in the classes which I observed had a varying degree of impact. In some of the large lecture halls I was almost invisible and blended into the main student population, however in the smaller classes I was definitely noticeable and felt slightly awkward when the lecturer did not introduce me and explain to the students why I was there. In some instances, I felt that by being there I had upset the harmony of the group:

'The student presentation at the beginning was good and I thought this was an excellent way of having the students 'lead' the tutorial. However, the two students who presented seemed quite nervous (not helped probably by me being there which leads me to think that the researcher does influence what she is researching!) and they were reluctant to interact with the other students in the

'audience' (Observer notes, English literature tutorial, Glasgow).

There were times when I felt awkward in my role as the observer. In the film and TV studies tutorial in Ghana, I was not introduced to the students and I felt uneasy. This was compounded by my fear of appearing imperialistic and that as a white Western woman, I somehow had the right to just 'parachute in' to the lesson without explanation and no one was to question it. However, in the physics tutorial at Glasgow I felt more at ease because the lecturer had explained my presence, but also I was at home and did not 'stick out'.

In the sociology lecture in a large non-tiered lecture hall in Ghana there were approximately two hundred students; I was singled out and asked my opinion:

'The teacher was talking about corruption and the government's role in eradicating it. The teacher's voice was loud but didn't quite make it to the back of the lecture theatre where I was sitting, so at times I was straining to hear. At one point the teacher singled me out and asked me if I would have come to Ghana to collect PhD data if I thought the country was corrupt. I responded 'no' and this raised a laugh from the students' (Observer notes, sociology lecture, Ghana).

When this happened I felt very conspicuous. I do not know if the lecturer was serious or not in directing this question at me; however, my answer seemed to prove humorous. What it did do however was make sure everyone knew I was there whether I liked it or not.

I was acutely aware of my influence on the learning and teaching I was observing. 'The Hawthorne Effect' as described by Jones (1992), occurs when participants alter their behaviour during the course of an experiment because of their awareness of participating in that experiment (although in social science research I am wary of using the objectivist term 'experiment' and would substitute it for 'research'). I was aware that by my presence in the classroom, I had the power to change what went on simply by being there. Davis and Shackleton (1975) describe the tendency for people to behave differently from

what they usually would when they know they are being studied. I knew that my presence could cause the lecturers whom I was observing to do things differently from what they would usually do.During my observations I was aware that what I was seeing was only one (possibly two) examples of that particular teacher's practice, therefore it may not have been reflective of their practice as a whole. I tried not to be overly critical in my observation notes (which at times was very difficult as it is always easier watching from the side-lines). Although it would have been good, almost cathartic, to chat with the teacher after the observation, I had to stick to my original purpose of being there which was to observe and not to give a critique.

6.4 Summary of Chapter 6 – Personal Reflections

As a researcher, it is important to be reflective, especially when using a critical theory framework (Alvesson and Skoldberg, 2000). My personal reflections chart some of the most memorable and influential experiences I had as a PhD researcher and also add value and colour to this thesis. With my epistemological beliefs rooted in social constructionism, I argue that it would have been impossible for me, the researcher, to be considered 'external' to this research. Cousin (2009) argues that objectivity is impossible in the human sciences and that as the researcher I am part of the setting and not outside of it. Personal reflections are an important component of interpretivist research because they allow researchers to consider the significance of their experiences and locate themselves with the research itself. My opinions and bias run through every part of this research and they were inherent in the decisions I made throughout the research process. Whilst conducting this research, my thinking and writing were influenced and challenged by the people I met and the experiences I had, therefore, I felt it important to dedicate a section in the thesis to exploring this.

The Raise conference in 2011 was where I first began to develop one of my new conceptualisations of active learning which was based on the physical/cognitive dichotomy of active learning. This was a significant point in my journey as a researcher as I finally felt I had found what my 'original contribution to knowledge' was going to be; an issue which troubles many PhD researchers.

The student walk-out in Iraq was immensely unexpected and challenged many of my preconceived ideas about how students would behave in that part of the world. I naïvely thought that students would show deference to figures of authority mainly because over the years that is how Iraqis have been portrayed by the media. I was quite shocked at the level of unrest in the classroom that day, and equally by how quickly it dissipated. The experience led me to question how student voice and power could shape and influence practices inside the classroom.

Observing teaching practice was by far the best and most exciting part of data collection and I am extremely glad I decided to do this as the observation data added significant depth to the research. Looking back on my observer notes, I can see that I was inexperienced and slightly judgemental at times. I am surprised at how involved I became in some instances and how strong some of my reactions were. In the spirit of being reflexive, I count these observer experiences, and all of my personal reflections, as part of my developmental journey as a researcher.

Chapter 7 - Summary, conclusions and recommendations

This section will present a summary of the key findings in this research. The main research question will be addressed and two new conceptualisations of active learning will be offered. Then this section will draw some conclusions from the research before outlining some recommendations.

7.1 Summary of key findings

7.1.1 Active learning is more about mind-set than physical activity

Active learning can be demonstrated through physical activities, but as was outlined in Figure 2 and throughout this research, active learning can be more than just activity; it can manifest itself in a teacher's philosophy and a student's attitude. This research has shown that active learning can be practised in various forms and it does not have to be constrained by physical space. Many of the findings of this research suggest that active learning is more about the mind-set of the students and teachers than it is about physical activity or the space in which the learning happens. Thinking of active learning as a mind-set or attitude is a more desirable approach because it is easier to overcome some barriers (e.g. large lecture theatre set-ups, class size or lack of resources) if less emphasis is placed on the 'physical' aspects of the term.

7.1.2 National culture is not significantly influential in the practice or understanding of active learning

This project collected data in four separate settings. The purpose of including an international perspective was to highlight some major differences in the understanding and practice of active learning. It is clear from the findings of this research that there were a few themes which were exclusive to the international settings, however there were not as many differences as I had expected there to be. This is significant because most educational literature, and in particular that pertaining to progressive pedagogies such as active learning, mainly derive from the West, therefore I expected to find huge differences in how active learning was perceived and practiced internationally. The majority of the themes in this

project were not particular to any one setting, therefore the research findings suggest that national culture was not as influential as I expected it to be.

As I had employed an interpretivist theoretical framework in this research, I was able to investigate how active learning was constructed by the participants I interviewed and in the teaching sessions I observed. Using interpretivism also allowed me to contribute my own subjective analysis. When reflecting on this research I can identify three ways in which my knowledge about active learning has been constructed. First there is the literature around active learning; as mentioned previously I expected active learning to be interpreted differently in international contexts because existing research on the subject is mainly published from a Western perspective. Second is the data from this research; it was possible to identify some themes which were specific to international setting but not as many as I had first anticipated. Third and finally is the development of my own learning and understanding about active learning in light of carrying out this research. It is this third 'layer' which has allowed me to identify that active learning is not contextually or culturally bound. The reason why context and national culture was not as influential as I thought may be due to an overriding 'human' factor which seemed to prevail. Despite conducting the research in very different locations, it was clear that students and teachers from different parts of the world shared some common aspirations and motivations as well as similar complaints and concerns about the system they worked and studied in.

7.1.3 Teachers must give support and direction to students for learning to be active

Active learning can happen when teachers give students a framework from which they can build, shape and direct their own learning. The same sentiment is evident in the philosophies of ancient thinkers such as Confucius, Socrates, Plato and modern day theorists such as Vygotsky, who all expressed that students should be guided by teachers but ultimately should take control of their own learning. In this research, the biology lecturer in Glasgow stated that she was disappointed that students did not have more freedom in their learning. She said that teaching was almost like giving students a recipe to follow and from which they all had to arrive at the same outcome. Students taking responsibility for

their own learning is one of the mostly frequently discussed characteristics in the active learning literature. However, is it possible for students to take responsibility for their learning if they are not able to exert any control over what or how they learn?

Figure 6 presents photos of a housing project in Chile (*Elemental's* 'half a house' project), which I think offers an equivalent visual representation of what teachers should do to make learning active. The story behind the project is that an architect, Alejandro Aravena, was tasked by the government to design a social housing complex in Iquique, Chile. Unfortunately the budget he was given by the government would not allow him to build enough houses for all the families in need. He decided to build double the amount of houses but only build half of the house which therefore meant that there would be enough houses for everyone. If Aravena had built full, complete houses, then it is likely the result would have been a set of uniform, identical houses. Instead what happened was that the residents were given the opportunity to complete the house themselves resulting in a mixture of different structures and colours. Analogously, the 'half a house' project provides an example of one way of addressing the biology teacher's concern that students are too directed and therefore, stifled. If students are given guidance (i.e. half a house) but also given the freedom to direct their learning, then the results will be different, creative and inspired for each learner, in similar ways to the residents' creations in Iquique.

Figure 6: Alejandro Aravena (Architect) Elemental 'Half a House' project, Iquique, Chile.

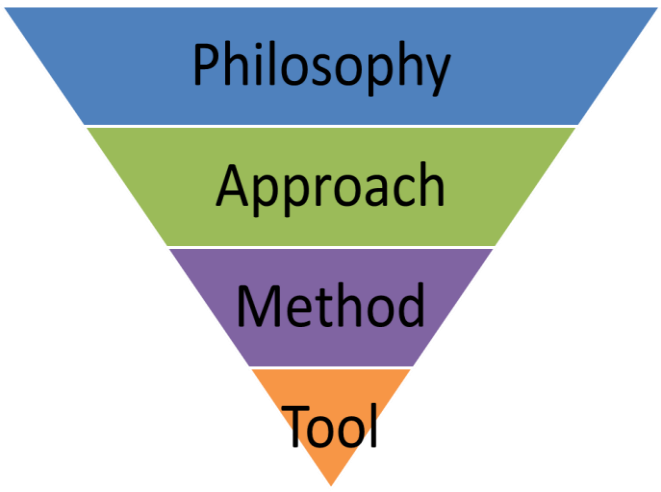
(Copyright of photographers Tadeuz Jalocha and Takuto Sando, permission granted by Elemental, Chile.)

7.2 Answering the main research question: What is active learning in higher education?

I undertook this research to make sense of active learning in higher education and assumed that on completion, I could bring together the many different interpretations of active learning to provide a new, clear definition. However, having explored the concept in depth and looked at it from many different angles, I find it difficult to provide a clear definition because the nature of active learning is highly complex and subjective. At the beginning of this research I stated that active learning has many varied interpretations and now at the end of this research, the findings suggest that this is still the case. However, what my research adds to the existing literature is two new conceptual understandings of active learning in higher education which are outlined in the following two sections.

7.2.1 Conceptual understanding 1: teachers' approaches to promoting active learning

In this section, I re-present and elaborate on the triangle (Fig.2) which was first presented in section 4.2.6. In section 4.2.6, the triangle was used to demonstrate the different ways in which active learning was perceived and the different levels on which active learning seemed to be operating, within the accounts of my research participants and within the literature.



In this section, I propose that the triangle is an original contribution to research on active learning in higher education. The triangle offers a conceptual understanding of how teachers approach the promotion of active learning in

higher education. The triangle presents four categories; however, it is important to note that these categories are not weighted by data responses (i.e. data did not indicate that philosophy was the most frequent category or that tools were the least frequently cited) and the model does not imply any of these categories are more important than another category. The hierarchy of categories is presented in relation to how learning and teaching is designed and influenced.

Philosophy has been placed at the top of the triangle because I believe teachers' philosophy is the most influential and overarching component of teaching and learning. Philosophy was by far the most elusive, intangible interpretation of active learning that was uncovered by this research. The philosophy category is based on the feelings, attitudes, beliefs and values about active learning that were expressed by participants; the understanding that active learning is promoted by the subtle yet consequential choices made by the teacher in the classroom.

The next category is 'approach', this encompasses some of the dominant teaching and learning strategies which were cited by participants as ways in which active learning is enacted. Such approaches include: co-operative learning; student-centred learning; and problem-based learning. These approaches appear to place the student at the centre of the learning whilst the teacher retains the role of facilitator.

The category of 'method' relates to responses from participants who suggested that active learning is about the format in which learning is delivered, for example, lectures, seminars and laboratories. Participants suggested that active learning could happen in a lecture if there were interactive activities between students and teachers. Participants also cited seminars and labs as spaces in which active learning could happen as these were often smaller in student numbers. This meant that there was a better student/teacher ratio and more interaction between all parties.

The last category is 'tool' which was the simplest category for participants (and me as an observer) to articulate in relation to active learning. Participants (and my observations) mentioned that learning seemed 'active' when teachers provided activities and stimuli for students. Examples of these included: the use

of Electronic Voting Systems; discussion groups; and quizzes. Deciding to place ‘tool’ at the bottom of the triangle was not to signify that it is of the least importance or was mentioned least in the data. ‘Tool’ was presented as the bottom of the triangle because in comparison to philosophy for example, it related to narrower, more definite interpretation of active learning.

It would be easy to view the four categories presented in the triangle as discrete, separate ways in which teachers may approach the promotion of active learning, and indeed this could be true. However, it is important to note that there is interconnectivity within all four categories. For example, a teacher who views active learning as a philosophy may in turn decide to choose approaches, methods and tools which also promote active learning.

7.2.2 Conceptual understanding 2: students’ approaches to active learning

As a beginning researcher, I fell into conceptual confusion when trying to determine the nature and characteristics of active learning in higher education. The concept of active learning was broadly defined and encompassed many conflated understandings of learning. The literature lacked coherence and appeared isolated and fragmented. The findings of this research project led me to develop a new conceptual approach to understanding active learning in higher education. By synthesising both the literature and the findings of this research, and also drawing on two theories, I suggest a new approach to understanding active learning in higher education.

The first theory is taken from O’Neill and McMahon’s (2005) research on student-centred learning. They suggest that it is possible to interpret student-centred learning as both a cognitive and a physical approach to learning; the physical approach being when students are involved in activities, projects etc., the cognitive approach being ‘the idea that the activity of learning is computed in the head, or as often described ‘in the mind’’(O’Neill and McMahon, 2005: p.29).

The second is Marton and Säljö's (1976) theory of deep and surface learning. Their research identified different ways in which students process information and suggested that students adopt either a deep or surface approach to their

learning. When students employ techniques to memorise what they are learning and focus on content and superficial aspects, Marton and Säljö (1976) describe this as a surface approach to learning. In contrast, when students focus on longer-term goals and they begin to understand, make connections and develop the ability to apply their own understanding of a concept, Marton and Säljö (1976) call this a deep approach to learning.

Building upon Marton and Säljö's (1976) theory, I propose an alternative way of understanding active learning is to consider that students can adopt deep and/or surface approaches to active learning. The interpretation of active learning as physical activity would constitute a 'surface' approach while the interpretation of active learning as a cognitive process would be a 'deep' approach to active learning (see Fig.7):

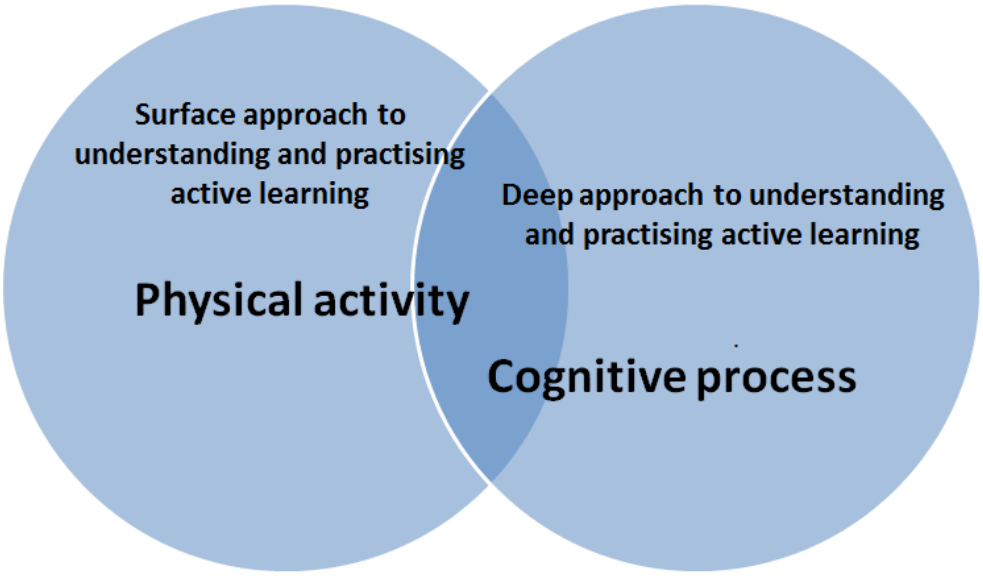


Figure 7: Deep and surface approaches to active learning

So when participants in this research suggested that active learning involves physical activity - expressed in various ways such as learners working in pairs or groups to produce presentations or projects, class discussions, or role-playing, I would now categorise this as a 'surface approach' to active learning. Alternatively, there is the 'deep approach' to active learning which is based on participants' views about students being cognitively engaged with what they are learning. This cognitive process is concerned with intellectual knowledge

development, it is what goes on internally in the learner's mind; a kind of reflection and internal dialogue which could happen in different settings including during a lecture. What separates this deep approach from a surface approach is that the deep approach need not be demonstrated in an overtly physical way. Furthermore, a deep approach to active learning may mean that students have ownership over their learning; in some instances students may even be included in the planning and implementation of what and how they learn. This deep approach is based on the understanding that active learning emphasises the cognitive process of the learner.

The proposed 'deep approach' and 'surface approach' to understanding and practising active learning is complex. As outlined in Figure 7, it is possible that there could be a cross over between deep and surface approaches. For example, students may be involved in surface/physical learning activities (e.g. quiz, EVS) but this may lead to them reflecting on what they have learned and engaging in a deep/cognitive process. Furthermore, a teacher may promote a deep approach to active learning but organise activities which resemble a more surface approach and which fail to engage students on a deep level. Similarly, a teacher may promote a surface approach to active learning and organise very frivolous learning activities, however, depending on many contextual factors (e.g. motivation of students, learning content) these could lead to students engaging more and possibly developing a deep approach to their learning.

This new conceptualisation of active learning is of course not definitive. As with the 'strategic' approach which was later added to the original deep and surface theory proposed by Marton and Säljö (1976), there may be an intermediate or other level of active learning. It is also possible that at first students adopt a surface approach to active learning, but with time and experience, they may develop a deep approach. Furthermore, a surface approach is not always a negative strategy, depending on contextual issues (time, content, resources) there are times when adopting a surface approach could be deemed more appropriate, for example when there are facts/statistics/information to be learned.

7.2.3 Bringing the two conceptualisations together

There is a connection between conceptualisation 1 and 2. In some ways the student approaches to active learning (deep and surface) seem in some ways to mirror staff approaches to active learning (the 4 categories). Perhaps like deep and surface learning, staff can influence whether or not students engage with active learning on a deep or surface level. The surface or physical approach to active learning might mirror to some extent the 'methods' or ‘tools’ categories of the triangle. Similarly, the deep or cognitive approach to active learning might better relate to the shifts in thinking and learning that are implied in the 'approach' or 'philosophy' categories. However, in both of these conceptualisations and in the connections between them, the categories are not perfectly discrete and there is a substantial amount of overlap. They two conceptualisations do however give us a new way of understanding and talking about active learning.

7.3 Conclusions

This research has offered a critique of the active learning literature and has explored what active learning means to teachers and students in higher education. It has also given an insight into how active learning relates to good teaching in higher education and how engagement with active learning is influenced by teachers' and students' beliefs about the purpose of a university education. Furthermore, the research has investigated active learning through an (albeit limited) international lens.

The research leads to the following conclusions:

- Active learning in higher education continues to be inconsistently defined. The findings from the UK and the three international contexts suggest that active learning is defined inconsistently not only in the UK, but also internationally. Based on the findings of this project, it is not possible to provide a clear definition of active learning; however, I propose two new conceptualisations of active learning.

- This research offers two new ways of thinking about and understanding active learning. First, conceptualisation 1 proposes that teachers can promote active learning in 4 ways; through their philosophy, their approach, their methods and the tools they use in the classroom. Second, conceptualisation 2 proposes that there can be a deep and/or surface approach to active learning which students can adopt. A surface approach relates to students physically engaging in activities. A deep approach focuses more on the cognitive mind-set of students and less on the need for physical activity. This means that active learning can take place in lectures or any learning context, and is not necessarily constrained by a particular teaching method.

- Context did not seem to have a significant impact on the interpretation or practice of active learning. The findings from the four research settings demonstrated that there were key themes which were trans-contextual.

Although this study was limited in size and the number of international settings it investigated, it indicates that national culture and context was transcended by a human factor which bonded many of the participant responses and reached across borders.

- The findings suggest that there is a relationship between active learning and good teaching. Good teaching and a deep approach to active learning share many similar characteristics such as that good teachers are perceived to be those who put students at the centre of their practice, challenge the thinking of students and challenge the conventional roles and practices of teaching and learning in higher education. Gibbs (2012) and Revell and Wainwright (2009) suggested that interaction and collaboration between students and teachers are vital components of good teaching and effective learning. This research concurred and added that good teachers provide opportunities for active learning.

- There is not much explicitly written in the literature about power and its relationship with active learning; however, my research suggests power is key to deep approaches to active learning in the context of higher education. Deep approaches to active learning involve a shift in the learning and teaching paradigm; from teacher-centred to student-centred.

- Some disciplines (e.g. sciences) and vocational degrees (e.g. dentistry) already have active learning 'in-built' into their curriculum which makes active learning easier to see or identify. However, the type of active learning which is easy to identify (e.g. students physically involved in clinical practice, lab work etc.) may be more of surface approach rather than a deep approach.

7.4 Recommendations

This research leads to the following recommendations:

- It is important for teachers and students to clarify what they mean when they use the term ‘active learning’. This research has shown that the term ‘active learning’ is often used in such an uncritical and simplified way that it can become meaningless. Teachers and students in higher education must continue to have dialogue about active learning; what it means, what it looks like and its perceived benefits.

- Teachers should be aware that they can promote active learning in different ways: through their philosophy (subtle yet consequential choices they make in the classroom); their approach (co-operative learning, student-centred learning, problem-based learning); their methods (lectures, seminars and laboratories); and the tools they use in the classroom (Electronic Voting Systems, discussion groups, quizzes).

- Students in higher education can adopt either a deep or surface approach to active learning. Adopting a surface approach is not necessarily a negative strategy; activities such as quizzes, discussion groups and project work are all ways in which students can engage with their learning. However, I believe that teachers should adopt teaching strategies which help promote a deep approach to active learning and students should be willing to be reflective and take responsibility for their learning.

- This project was limited by the opportunistic nature of the data collected internationally. There is a need for further research to build on the findings of this project and investigate active learning in more international contexts. It would also be advantageous to gain the views and opinions of students in international settings.

- There is a need for further research which investigates active learning across different universities in the UK. This project primarily focused on the University of Glasgow; it would be beneficial if research on active learning could take into account institutions which are non-research

intensive and/or were established post 1992 so as to give different perspectives.

- This research recruited teacher participants who had either been recommended to by students as ‘excellent teachers’ or had won a Teaching Excellence Award. By the nature of this, it was almost inevitable that all these teachers would be highly engaged with the development of learning and teaching. Further research into active learning should include a broader variety of teachers in higher education who reflect a cross section of the general teaching community.

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Appendices

Appendix 1: University of Glasgow, UK

Appendix 2: An-Najah National University, Nablus, occupied Palestinian territories

Appendix 3: Hawler Medical University, Erbil, Iraq

Appendix 4: University of Cape Coast, Ghana

Appendix 5: Plain Language Statement

Invitation to be interviewed for the purpose of a research project

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Project Title: A Study of Active Learning in Higher Education.

Researcher: Natalie Watters

Supervisors: Dr Liam Kane and Dr Cathy Bovill

Department: Social Justice, Place and Lifelong Learning. School of Education, College of Social Science.

Who am I and what am I doing?

I am Natalie Watters, a postgraduate student at the University of Glasgow based within the School of Education in the College of Social Science. For my PhD research I would like to observe and interview teachers and students in Higher Education. The main focus is:

A) What can be considered a 'good' learning and teaching experience in Higher Education?

B) What is Active Learning in Higher Education: what does it look like?

C) What, if any, is the relationship between good teaching and Active Learning?

D) To what extent do views on Active Learning (both by students and teachers) relate more to their fundamental beliefs on the purpose of education?

Why have I been chosen?

You are being approached because you are currently a Higher Education student/teacher.

What will I have to do?

If you agree to participate in this research, I will observe your teaching/learning, then you will be interviewed by me about your thoughts, feelings, ideas and experiences as a student/teacher

in Higher Education. The interview will take no more than an hour and will be arranged at a time and place convenient for you.

Will my taking part in this research be kept confidential?

The interview will be audio taped and afterwards the content of the interview will be typed up. Freedom of Information means that there may be legal limitations to the confidentiality of the information provided. However, the original recording will be destroyed once I have typed it up, and your name will be not be used in the written transcript of the interview, so you will not be able to be identified from it. I will write part of my thesis based on the content of your interview: this will then be submitted and assessed. Excerpts from your interview will be included, but your name will not appear anywhere in my written thesis.

Do I have to take part?

No. Participation is voluntary. Even if you decide to take part, you can change your mind at any time, and any data that you have already given can be withdrawn.

Who should I contact for more information?

If you have any more questions or would like additional information about the research, you can contact me Natalie Watters by email n.watters.1@research.gla.ac.uk or tel: 07779105028.

You may also contact my Research Supervisors -

1) Dr Liam Kane 0141 3301854 or liam.kane@glasgow.ac.uk

2) Dr Cathy Bovill 0141 3304997 or catherine.bovill@glasgow.ac.uk

If you have any concerns regarding the conduct of this research project you may contact the College Ethics Officer, Dr Georgina Wardle at georgina.wardle@glasgow.ac.uk

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This project has been reviewed and approved by the College of Social Sciences Ethics Committee.

Thank you for taking part in this study.

1st November 2010

Appendix 6: Participant Consent Form

CONSENT FORM

Title of Project: *A Study of Active Learning in Higher Education.*

Name of Researcher: Natalie Watters

1. I confirm that I have read and understand the Plain Language Statement for the above study and have had the opportunity to ask questions.

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.

3. I consent to my interview being recorded and that I will be referred to by another name in the written research.

4. I agree / do not agree (delete as applicable) to take part in the above study.

_____	_____	_____
Name of Participant	Date	Signature

_____	_____	_____
Name of Researcher	Date	Signature

Appendix 7: Interview Questions University of Glasgow

PhD Research: A Study of Active Learning in Higher Education.

Natalie Watters

Semi-structured interview questions for teachers/lecturers

Background and teaching philosophy

What do you teach and how long have you been teaching in Higher Education?

What do you think makes a good teacher in Higher Education?

What kind of teacher are you? Do you have a teaching philosophy?

How important is the relationship between student and teacher?

What do you think the purpose is of a university education and what do you think the role of the teacher is?

Teaching in Higher Education

Can you describe the classes you teach, i.e. lectures, tutorial, labs etc?

What classes do you most enjoy teaching? Why?

Are there ever difficult areas of the curriculum you teach which students find hard to understand? (I.e. threshold concepts) How do you approach these?

How do you normally assess your students? What do you think the role of assessment is in H.E?

How do you foster critical thinking in your students?

Do you ever feel constrained in your teaching? If so, when, how?

Have you ever taken risks in your teaching methods? If so, how and what was the outcome?

Learning in Higher Education

What do you think is meant by Active Learning? What does it look like? What is the teacher doing/what is the student doing in an Active Learning environment?

Have you ever taught using what you think is an Active Learning method?

Do you think there is a difference between active learning and active teaching? Can one exist without the other?

What is your opinion on lectures as a method of instruction at university?

Do you think Active Learning is appropriate in all learning situations or are there times when you think alternative methods of instruction must be used?

Is it possible to have a teacher-student relationship in a lecture environment?

Do you think it is possible to be actively learning in a lecture?

Appendix 8: Observation Schedule

PhD Research: A Study of Active Learning in Higher Education.

Observation Schedule

What teacher/class are you observing? College, subject, year etc
What type of class is it? Lecture, tutorial, practical etc. Where is it being held?
How many students/teachers are present?
How is the lesson introduced?
What teaching methods is the tutor using?
What happens during the lesson? What is the teacher doing? What are the students doing? Is there any independent work going on?

How do the students and tutor interact? Do the students have a voice?
What learning and teaching resources are used?
Does the tutor use activities as part of the lesson?
Do the students appear to be engaged in their learning? If yes, how is this demonstrated?
How does the tutor wrap-up the class? Are there clear next steps for the students?

Appendix 9: Focus Group Interview Questions University of Glasgow

PhD Research: A Study of Active Learning in Higher Education.

Natalie Watters

Questions for students in focus group

Background and learning philosophy

Why did you decide to study at university?

What do you think the purpose is of a university education?

What do you think makes a good learning experience at university, can you give me an example or specific lesson/person you think of when defining this?

What kind of teaching do you prefer, lectures, group work, tutorials, practicals etc?

What kind of learner are you, i.e. do you work/study better by yourself or as part of a group?

Learning and teaching in Higher Education

What classes do you find most enjoyable at university, why? Is there a big difference in the teaching styles from one lecturer to the next, and/or from one subject to the next?

What is your opinion on lectures as a method of instruction at university?

What do you think is meant by Active Learning, can you give me your definition of this?

Do you think it is possible to be actively learning in a lecture?

Have you ever been taught using what you think is an Active Learning method? If yes, what did you think about it, if no, do you feel you should have?

Evaluating your learning experience

Do you feel you have a relationship with your tutors/lecturers, if yes what kind of relationship, if no, why not?

Do you think university equips you with skills which are transferable for life/career?

What do you think about the idea of university education being a commodity?

Do you feel you are self-directed in your learning? Can you be creative, do you have freedom of choice?

Appendix 10: Interview Questions International Settings

PhD Research: A Study of active learning in higher education.

Natalie Watters

Semi-structured interview questions for International teachers.

What do you think is the purpose is of a university education ?

What do you think makes a good teacher in higher education?

What kind of teacher are you? Do you have a teaching philosophy and if so how does your philosophy impact on your practice?

How important is the relationship between student and teacher?

What do you think is meant by active learning? What does it look like?

Have you ever taken risks in your teaching methods? If so, how and what was the outcome?

Do you ever feel constrained in your teaching? If so, when, how?

Appendix 11: Statue of mother and baby at University of Cape Coast, Ghana.