

**An exploration of a True Collaborative Learning  
Environment and its challenges, in an Irish Higher  
Education Classroom**

**Corinne Power O'Mahony**

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## **Abstract**

This research explores the challenges of one innovative ‘true collaborative learning’ environment in an Irish higher education classroom. It investigates the peer learning literature, focusing on four elements: ‘student’, ‘tutor’, ‘topic’ and ‘interaction’. Extrapolating from the literature, the study defines true collaborative learning in context and acknowledges the place of learning culture.

The ethnographic insider approach to this research is acknowledged and explored. A single small-scale case study design frame was used to focus on gaining a deeper understanding of this setting. The researcher observed and recorded the sessions, maintained a reflective diary and in order to balance the findings, explored students’ perspective in a focus group at the end of the research period.

The recordings were viewed holistically and analysed through the four elements, funnelling the data through verbal, non-verbal and multimodal themes. The findings revealed the importance of trust, communication, honesty and openness in the process, highlighting the role of a particular type of relationship between tutor and students, and student and student in the TCL classroom.

The research concludes that the challenges associated with enacting true collaborative learning hinge on a subtle set of tutors’ skills, dispositions and educational goals, while balancing the cultural dynamics at play, components not easily aligned nor achieved.

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## **Chapter 1 Introduction**

### **1.0 Introduction**

This chapter gives an insight into my journey and creates a contextual understanding for what follows. It outlines the research focus, the research questions and the rationale behind this study, providing a justification for this approach. Definitions of key words used within the research are clarified and an overview of the subsequent chapters outlined.

This research stems from my practice and something I saw happening in one of my undergraduate classrooms. I noticed a high level of student engagement in a particular classroom and my practitioner instincts immediately questioned why, how and what were the underlying factors that enabled this unusually high level of engagement. The rationale behind those thoughts was that if I could explore and understand the constituents of this specific environment, then perhaps there were ways that I as a practitioner could encourage and promote this level of engagement in my other classes. I had no idea what I was observing and even where to start in the literature. In a very exploratory manner, I initially engaged with the literature reading around group learning and interaction, which quickly led me to peer learning, co-operative learning and eventually the idea of collaborative learning. All of these learning environments I realised had some elements similar to my experience but none were close enough to my setting. During this time I recognised that the word ‘collaborative’ was used loosely and generically among the authors and this posed its own difficulties in research terms in trying to specifically define my setting in context. Eventually I found an article written by Parr and Townsend (2002) where they suggested the idea of ‘true collaborative learning’ (TCL) and intimated that this was an even more advanced form of collaborative learning. This immediately resonated with me as being very close to my context and borrowing their term ‘true collaborative learning’, I attempted to explore and define it, and by doing so, create a deeper richer

understanding of this learning environment thereby differentiating it from other peer learning domains.

The study explores collaborative learning practices at the micro-level of classroom practice in one Irish Higher Education (H.E.) classroom and focuses on one group of third year placement students, completing one module, within one programme, in one department, in one school of business. This research study takes a social constructivist approach as I try to explore, and come to some understanding of, the students' learning by observing their interactions with each other, attempting to uncover the factors that influence the practices of this learning environment. In an ethnographic insider role, the observations of this practice are unpicked and in line with Vygotsky's (1978) philosophy, I explore the social processes and how the students apply these to new topics over a 12 week semester. The study also reveals the comments of the group experiencing this environment.

### **1.1 The Research Context**

The research emanates from my direct involvement in a work placement module over the past nine years (2006-2015). The twelve participants in this study are attending an Irish H.E institute and are business degree students in year three of a four year, (eight semester) degree programme. In third year, (semester six) all the third year students are offered a flexible semester. This offers four placement options, traditional work placement, study abroad, new venture and college and community which is a teaching placement.

The teaching placement is a unique offering in the flexible semester, allowing students who are contemplating teaching as a career, after their undergraduate degree, the option of experiencing being a primary or post-primary teacher for a full semester. This institute was the first in the Republic of Ireland to offer non-

teaching degree students this opportunity. The students who choose the teaching placement spend Monday and Tuesday within the academic institute completing three mandatory five credit practical modules (Teaching Skills, The Professional Individual and Managing the Project) associated with their placement, and the rest of the week in their host school.

*Managing the Project* is one of the three mandatory modules, and is delivered through timetabled interactive classroom sessions, the TCL environment studied in this research. I as researcher am also the tutor in this classroom and facilitate an informal discussion forum which is student-driven, with all students encouraged to participate and interact, led by the students' experiences or critical incidents which have occurred during their placement. This is a unique module and all the students are required to sign a learning contract with a minimum attendance requirement of 80%. The curriculum is student-driven and emerges from the discussion forum. Students submit an individual learning log which is graded pass/fail. The twelve students are the full cohort on this placement option.

As class tutor I observe a small group of twelve students' interactions, over the course of a 12 week semester, in their normal classroom setting that I facilitate as a TCL environment. The students, who are experiencing TCL for the first time, are observed from commencement to enactment of the true collaborative process, in order to gain a deeper appreciation of the process in action. Through close immersion in the process, I identify the tensions and challenges that impede the success of implementing TCL in an Irish H.E. classroom.

## 1.2 The Research Questions

The main research focus is:

*An exploration of a True Collaborative Learning Environment and its challenges in an Irish Higher Education Classroom*

In order to achieve this, the study answers the following research questions:

1. *What is True Collaborative Learning?*
2. *What factors influence the CL practices in an undergraduate classroom?*
3. *What are students' perceptions of the CL environment?*
4. *What are the implications for theory and improving practice?*

The research questions evolve iteratively over the course of the research. My thoughts initially focused on students' professional and personal learning, then moved to an emphasis on peer learning environments (Boud et al, 2001), including co-operative (Johnson et al, 1994, Millis 2010, Summers et al, 2005) and even collaborative learning. Yet while getting significantly closer to my classroom experiences, the literature was still not close enough. It was at this stage of the reading that I came upon Parr and Townsend (2005) whose idea of *true collaborative learning* resonated with me. This term, while not defined in the article or anywhere else, helped focus the first research question.

In addressing these questions, I propose a definition of TCL in order to gain a deeper understanding of the true collaborative process including its inter-elemental dependencies and I explore the students' thoughts about this learning environment to create a fuller understanding of the key influences in the process.

## 1.3 Justification for the Study

There are multiple research papers on peer learning written over the last three decades in education settings such as peer and group learning in the primary and post-primary classroom sector, but few examine the H.E. Sector in Ireland.

In recent years, computer-supported collaborative learning (CSCL) has also generated research interest with researchers focusing on computer-mediated collaborative learning (Dillenbourg, 1999). Although I acknowledge the growing role of technology in the educational sector, as an academic, I still spend the majority of my lecturing week (18 hours per week), in the traditional classroom interacting with the student cohort face to face. Consequently I made a conscious decision to exclude the CSCL research, instead focusing on undergraduate small group tutor facilitated classroom interaction.

On reading the collaborative literature, similar ideas emerged. The literature lacks thick ethnographically derived description in research on collaborative learning and highlights a need for more qualitative research in this area. Dillenbourg (1999) encouraged researchers to zoom in on collaborate interaction, while Volet et al (2009) asked researchers to identify specific episodes of collaborative interaction in order to gain a deeper understanding of the process. Barron (2003) wanted more research on real students in real classrooms rather than the research-based experimental classrooms. This study aims to address all of the above.

#### **1.4 My Professional Background**

I have been employed at an Irish H.E. institute for the last fifteen years. As an undergraduate student I obtained both my primary business degree and my postgraduate MBA from this institute. In the interim I spent ten years in industry in numerous practitioner roles, during which time I developed a broad skill set and an appreciation for the different practices associated with each work environment. My time in practice imprinted on me the importance of social, interpersonal, and generic skills required to function efficiently in the workplace. My academic self, recognises the importance of education and the confidence that it imbues in an individual. As a lecturer in an undergraduate classroom I understand the importance of theory, but when looking through my practitioner lens, I see the

necessity for our student body to be ‘work ready’. My professional practice focuses on narrowing this theory/ practice divide.

### **1.5 Definition of Terms**

There are key terms in the literature that at times are interchangeable and others context specific. The terms ‘collaborative process’ and ‘collaborative environment’ appear repeatedly throughout this study. In this study in using the term collaborative process I allude to a sequence of stages including the progression of what happens, the practices that make it happen and the manner in which it occurs. The collaborative environment, in contrast, encompasses all of the above but also recognises the importance of the physical environment required to bring the process to life. Without a collaborative environment the process will not occur.

The term ‘topic’ is used throughout the study, referring to the evolving subject of discussion in the TCL classroom. This is the starting point of the dialogue and the focus of the student-driven TCL discussion that follows. This will be referred to in the data analysis.

### **1.6 Overview of Thesis**

This chapter has described the evolution of my interest in the research area and the gap in the literature pertaining to the paucity of research about TCL in the H.E. sector in Ireland. It has described the research and the participant population in context. I propose key research questions justified for this research and explain a working definition of key terms.



Chapter 2 explores the literature on collaborative learning, and defines the term by extracting the main elements from multiple authors in the field. It positions collaborative learning on the peer learning continuum, comparing it to peer and co-operative learning environments. Other collaborative learning strategies, Problem Based Learning (PBL), Enquiry Based Learning (EBL) and Dialogic Learning (DL) are explored. Four key elements are identified, topic, tutor, student and interaction. Extrapolating from these, I differentiate between each peer learning environment and propose a new definition of TCL and define it in context. The challenges and tensions associated with the practice of collaborative learning are outlined and the influences of both learning culture and communities of practice discussed.

Chapter 3, the methodology chapter, is divided in three sections: research design, data collection methods and data analysis. Section one describes the research site, reiterates the research questions and explores my positionality and an understanding of why Vygotsky's (1978) social constructivist philosophy underpins this research study. It then deliberates design and proposes an ethnographic case study. I argue the dilemma of the insider researcher and deliberate on the ethical implications. Section two ponders data collection, my reflective diary and the focus on visual methods including observation, particularly participation observation and video recording as a representation of the fact, in the research process. Section 3 contemplates data analysis and interpretation and focuses on the qualitative dimension when analysing unstructured data using thematic analysis.

Chapter 4, the findings chapter is divided into five sections. Presentation of the findings aims to enable the reader to see, hear and feel how the collaborative interaction evolves. Section one focuses on two topics (Resources in Education and Student Behaviour) and how they emerge in TCL through student conversation over the semester, identifying individual each students' input in the

dialogue. Section two is tutor-focused, and the findings are presented through my reflective diary and from verbal, non-verbal and other evidence gleaned from the data. Tutor themes identified in the learning environment are displayed in Table 9 at the end of the section. Section three presents' student data, Section four identifies themes in interaction and Section five contains the student perceptions about this learning environment displayed in six themed tables (Table 11 to 17).

Chapter 5, the discussion chapter opens with a collaborative formula. Using Hodkinson et al's (2007) seven characteristics of learning culture, the elements of the formula are discussed through the lens of learning culture and its overarching presence in educational domains. The dispositions, positions and actions of tutor and student are deliberated. Interactions are examined through the time students and tutors spend together and inter-relationships are explored. The influence of syllabus is acknowledged and reviewed in light of both student comments and my reflections, while the influence of the wider social, cultural and educational setting is acknowledged but not discussed in detail.

Chapter 6 aims to draw some conclusions in relation to limitations of the study, contribution to theory and knowledge and recommendations for future research and tutor practices.

## Chapter 2 Literature Review

### 2.0 Introduction

Teaching and learning trends in recent years have considered the importance of group work and promoted a group learning approach in educational settings from primary schools to universities (Summers et al, 2005). This changing classroom dynamic is in direct contrast to the old instructional approach. Ulrich and Glendon (2005) see the collaborative learning environment as an essential characteristic of this new learning design, where students are actively challenged to discover and apply knowledge: here the skills of collaboration, communication, interaction and engagement are seen to be as important as any knowledge created or constructed. In light of these trends this review of the literature uncovers the elements of collaborative learning, thereby aiming to clarify and illuminate the research questions which focus on the influences that contribute to the practice of what the thesis defines as TCL in an Irish H.E. classroom environment, and the challenges that arise.

This chapter reviews the literature on peer learning using Parr and Townsend's (2002) continuum to initially explore and compare the theoretical and practical differences between peer, co-operative and collaborative learning environments. The first section of the literature considers a broad range of definitions of collaborative learning. Other learning strategies including Problem Based Learning (PBL), Enquiry Based Learning (EBL) and Dialogic Teaching (DL) that fit within collaborative learning environments are explored and are compared to TCL. In doing so the chapter aims to frame and subsequently propose a clear and focused definition of TCL.

In section two the literature discusses holistically four key and inextricably intertwined collaborative learning elements: *student*, *tutor*, *interaction* and *topic* and outlines the challenges associated with each element in the classroom or

tutorially-configured environment (Parr and Townsend, 2002). The section acknowledges the crucial contribution of Vygotsky's (1978) social constructivist approach in this teaching and learning environment. The final section explores collaborative learning through the lenses of *learning culture* and *communities of practice*, acknowledging tensions and barriers in the wider learning environment and in TCL in particular. The chapter concludes by outlining the implications for this research study from the literature, in terms of the research questions.

## **2.1 What is Collaborative learning?**

In setting the scene, collaborative learning may be described briefly and in general terms as an educational approach to teaching and learning that aims to engage students as peers to work together in groups in a social and active environment facilitated by a tutor. Collaborative learning therefore fits under the umbrella of peer learning and is one of three learning environments, namely *peer tutoring*, *cooperative learning* and *collaborative learning* as shown in Figure 1. The three learning environments are discussed in detail in Section 2.3.

## **2.2 Defining Collaborative learning**

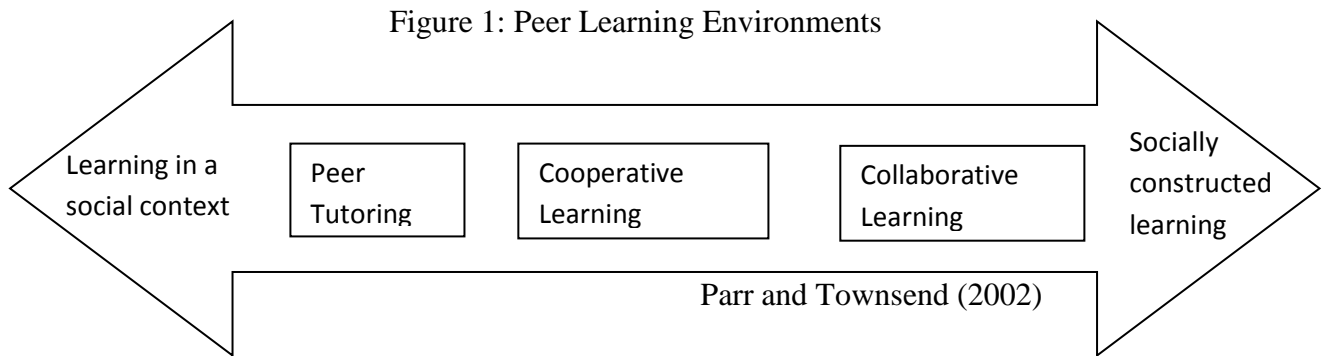
There is little consensus on the definition of collaborative learning and authors in the field define it in multiple ways. In an earlier assignment, (Power O'Mahony, 2013a) I investigated the elements of CL and after some consideration identified the main elements from authors in the field as follows. The concept of collaborative learning as an 'interactive learning process' can be defined as an 'educational approach to teaching and learning that involves groups of learners working together to solve a problem, complete a task or create a product' (Laal and Laal, 2012: 491). The central idea around Wiersema's (2000) definition of collaborative learning is that students learn, work and improve together rather than independently or as sole learners. Moreover Trimbur (1989) distinguishes it from other forms of group work 'on the grounds that it organises students not just

to work together on common projects but more important to engage in a process of intellectual negotiation and collective decision making' (pg. 602). Oxford (1997) views collaborative learning as having taken on 'the connotation of social constructivism which holds that learning is acculturation into knowledge communities' (pg. 444). Barron (2003) considers the importance of social interactions influencing knowledge construction. From the elements outlined above I interpret the central concept of collaborative learning as a social interactive aspect to learning. This means students engaged in it must actively listen, articulate their own ideas, construct and enable their own framework of learning.

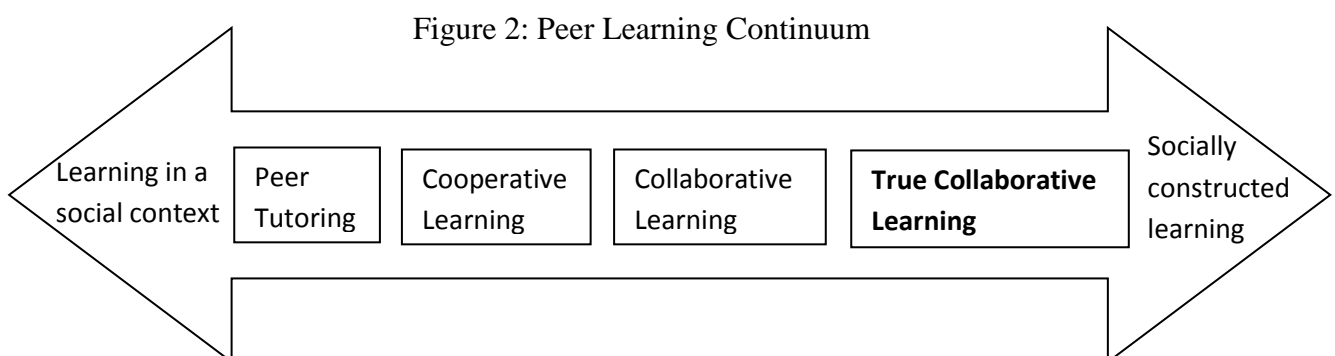
### **2.3 Situating Collaborative learning**

Collaborative learning is identified as part of the peer learning continuum (Figure1 and Figure 2). According to Boud et al (2001) peer learning in education is understood as learning from one's own peers defining it broadly as 'students learning from and with each other' (pg. 4). The term 'peer' in this context is seen as someone of equal standing in a similar situation who does not have a teacher or instructor role, someone who shares 'the status as fellow learners...who do not have power over each other by virtue of their position or responsibilities' (Boud, 2001:4), and is therefore an equal. 'Peer Learning' is a two-way 'reciprocal learning activity' (Boud et al, 2001:3) and, in this context, can be defined as 'the acquisition of knowledge and skill through active helping and supporting among status equals or matched companions, who share a common or collaborative learning closely related learning' goal (Eisen, 2002:10). It involves people from similar social groupings who are not professional teachers helping each other to learn and learning themselves by so doing' (Topping, 2005:631). As such, peer learning activities attach importance to collaboration rather than competition and encourage participation from all involved in the process by using a group or paired approach to learning rather than a traditional individualistic approach (Boud et al, 2001).

Parr and Townsend (2002) place collaborative learning as one of the three learning environments (peer tutoring, cooperative learning and collaborative learning) on the peer learning continuum (Figure1).



The idea of TCL was first mentioned by Parr and Townsend (2002) and, according to my research should be placed on the end of their spectrum (Figure 2 below). The term is further explained, explored and defined in Section 2.4 because of where TCL is positioned on the continuum; it shares many common elements of peer tutoring, co-operative learning and collaborative learning. Figure 2 below is adapted from Parr and Townsend’s (2002) study on peer learning, and is derived from one portion of their model, namely the ‘tutorially configured interactions’.



In order to understand TCL, it is necessary to briefly compare the preceding peer learning environments on the continuum above. This will distinguish the elements that differentiate TCL as an *independent progressive learning environment*.

- ‘Independent’ because students drive the curriculum
- ‘Progressive’ in that it is the student voice rather than the tutor voice that is dominant in the TCL context

A comparison of the three existing environments follows, aiming to demonstrate the uniqueness of this new peer learning classroom. As a precursor to this comparison, it is useful to understand the importance of the tutor’s role in each learning environment on the peer learning continuum. The irony of independent peer learning is that ‘it requires teachers to make it effective’ (Boud et al 2001:171). This is true of all the peer learning environments across Figure 1 from peer tutoring to collaborative learning where a tutor is required to assist these learning processes. While peer learning focuses on peers learning from and with each other (Boud et al, 2001), tutors are implicated in this process as facilitators and drivers of student-directed activities, similar to the coach role described by Smith & Mac Gregor (1992). My study questions the deeper implications of this rhetoric which are not fully explored in the literature and aims to illuminate some of the key issues. These tutor-enabled peer learning environments allow students to communicate, question, reflect and manage their own learning (Boud et al, 2001).

### **2.3.1 Peer Tutoring**

Peer tutoring (Figure 1) is a term used to describe students teaching each other by working in pairs in a social environment. Peer tutoring gives each person in the dyad a specific role, one as tutor and one as tutee (Topping, 1996). Falchikov (2001) distinguishes between tutoring and teaching reasoning that peer tutors are not teachers, do not have a teaching qualification and cannot award final grades

and contends that, as peer tutors, one student holds no power over the other as neither has control over the curriculum or materials used. However, the role of the class teacher in peer tutoring is to direct the learning, control the materials and the curriculum. The overarching idea of peer learning is to create an open communicative social environment which encourages independent learning (Boud et al 2001), perceived by Parr and Townsend (2002) as learning in a social context.

In order to clarify and differentiate the subtle nuances between each peer learning environment on the continuum (Figure 2), I exemplify an activity to demonstrate similarities and differences. In the peer tutoring classroom, the teacher might organise the pairing of the students, provide them with a set of questions and the materials to answer those questions. The class teacher would observe, listen and interact with the pairs helping and directing them during the activity. The teacher's role would be to encourage, direct and evaluate the pairs during the activity. The students would follow the teacher's instructions and engage with the process as directed; this is therefore a teacher-driven peer learning environment.

### **2.3.2 Cooperative Learning**

Cooperative learning is also perceived as 'learning in a social context' (Parr and Townsend, 2002) as it lies in the middle of the continuum (Figure 2). It differs from peer tutoring in that the student dyads are replaced by small groups. The class teacher in this environment controls and guides the small group interactions (Parr and Townsend, 2002; Topping, 2005). These small groups of students work together to achieve a collective task, assigned by the teacher, and all participants in the group are valued as sources of expertise. With many voices in the group, the interaction is multi-directional (Parr and Townsend, 2002). This learning environment encourages students to engage with all members of the group, on both an individual and group basis, so the learning is often multi-directional as opposed to uni-directional dyad learning.



Underpinning cooperative learning are two key features; positive interdependence and individual accountability. Millis (2010) defines positive interdependence as teachers giving students ‘a vested reason to work together on a task, usually through the nature and structure of a task that has been designed to encourage co-operation and provide challenges a single student could not meet’(pg. 5). Individual accountability simply means that ‘students receive the grades they earn’ (Millis 2010:5), promoting independence in the learning process for each student to achieve their own learning. Other characteristics deemed important are face-to-face interaction and group reflection. Summers et al (2005) perceive cooperative learning as more formal, methodical and process-orientated.

In the cooperative learning classroom and using the same example as in the peer tutoring section, the teacher’s initial role would be the same as before, setting the questions, organising the groups and giving them *some* materials to answer the question. The difference in cooperative learning is that the teacher may then request that the groups independently find a specific number of other resources to help answer the question. During this part of the process the teacher would give guidance on sourcing these new materials and help groups who struggle. The teacher’s role in cooperative learning is to guide the process in contrast to driving the process in peer tutoring. Cooperative learning seems to show more evidence of positive interdependence and accountability of group learning, discussed above; two of the five basic elements of cooperative learning (Johnson et al, 1994) also associated with collaborative learning.

### **2.3.3 Collaborative learning**

Collaborative learning is located at the right side of the peer learning continuum (Figure 2). It is an active learning environment, facilitated by a teacher, involving groups of students working together to solve a task. Cohen (1994) explains the term 'natural' collaboration as referring to students who are not taught group skills prior to their group learning activities. Collaborative learning according to Mercer (1995) is how 'knowledge and understanding can develop when learners talk and work together without a teacher' (pg.89). Parr and Townsend (2002) regard peer interaction in this learning environment as a two way process, with high reciprocity allowing students to interact and 'search for new shared understanding' (pg. 406) together. The benefits of this small group learning environment according to Laal and Laal (2012) are students learning to achieve common goals such as answering a question, completing an activity or solving a set task. This suggests that students have to work in a group environment, source information, communicate that information to the group and contribute and defend their ideas during the collaborative learning activity. Learning collaboratively aims to stimulate high level thinking skills including evaluating, reasoning, critical practice and promotes an active rather than passive group learning environment. In line with the literature (Laal and Laal, 2012; Parr and Townsend, 2002), this environment requires active participation helping students stay focused on task, allowing the CL classroom environment imitate real life scenarios, contributing to the development of the student's oral, social, communication and work ready skills.

In order to appreciate the uniqueness of the TCL environment an understanding of the practices of Problem Based Learning, (PBL) (Harland, 1998; Price, 2003; Barrett and Moore, 2011), Enquiry Based Learning, (EBL) (Deignan, 2009; Price, 2003) and Dialogic Learning, (DL) (Alexander, 2008b; Flecha, 2000) are necessary as they appear to share a number of common elements with all the peer learning environments on the continuum in Figure 2, particularly collaborative

learning. Subsequently the continuum suggests that they also share many of the same elements of TCL.

#### **2.3.4. Dialogic Learning**

Dialogic teaching and learning is, according to Alexander (2008b), a specific pedagogic approach to teaching and learning that uses talk as an explicit strategy to encourage children to actively participate in the classroom. However there are specific principles associated with this pedagogy and Alexander (2008a) seeks to differentiate between conversation and dialogue, seeing conversation as a 'sequence of unchained two-part exchanges' (pg. 104) and classroom dialogue as explicitly seeking 'to make attention and engagement mandatory and to chain exchanges into meaningful sequence' (pg.104). Following this, it is suggested that dialogic teaching 'harnesses the power of talk to engage children, stimulate and extend their thinking and advance their learning and understanding' (Alexander, 2008a:185). Dialogic teaching is an interactive experience and has five main conditions including collective, reciprocal, supportive, cumulative and purposeful (Table 1). Alexander (2008a) suggests that if classroom talk does not meet these five criteria, it is not dialogic talk.

**Table 1: Alexander’s Five Dialogic Teaching Criteria (Alexander, 2008a:185)**

Collective	Teachers and children address learning tasks together, whether as a group or as a class;
Reciprocal	Teachers and children listen to each other, share ideas and consider alternative viewpoints;
Supportive	Children articulate their ideas freely without fear of embarrassment over ‘wrong’ answers; and they help each other to reach common understandings;
Cumulative	Teachers and children build on their own and each other’s ideas and chain them into coherent lines of thinking and enquiry;
Purposeful	Teachers plan and steer classroom talk with specific educational goals in view.

Alexander (2008a) suggests that the criteria of collectivity, reciprocity and support focus on the ‘conduct and ethos of classroom talk’ (pg.118) and that this may be encouraged by setting out rules for speaking and listening that children understand. It is also noted that the supportive environment recognises emotional needs and by recognising these needs and by building and supporting them, helps enable children to reach the cumulative stage of dialogic learning. Although talk seems a naturally occurring phenomenon, dialogic learning appears to require a high level of communication skills from the teacher to facilitate this learning approach, similar to the facilitation role required in the TCL classroom.

Dialogic learning according to Flecha (2000) ‘embraces every aspect of learning’ (pg.16) and if this comment was to be taken literally it could be proposed that dialogic learning as a learning approach could be seen as the umbrella under which many forms of learning fit. Flecha (2000) propose seven principles of dialogic learning: *egalitarian dialogue*, *cultural intelligence*, *transformation*,

*instrumental dimension, creating meaning, solidarity and equality of differences.* Indeed the title of his book 'Sharing Words' evokes the sentiments of this pedagogy, particularly egalitarian dialogue. Here the idea of equality of idea, regardless of power or position, is reflected in his comment that 'both students and teachers learn, since they all construct interpretations based on the contributions made' (pg.2). The instrumental dimension of learning is valued in the dialogical framework, and meaning is recreated 'when interpersonal interaction is actually directed by ourselves' (pg. 18) as proposed in TCL. The interpersonal dialogue should enable conversation rather than passive listening. In order to achieve this Kolb and Kolb (2005) acknowledge the importance of space for conversational learning, acting and reflecting, and the need for a safe environment to explore and build on what students already know: a space to take charge of their own learning. Transformative education according to Flecha (2000) is based on 'much deeper and more sincere discourses' (pg.22) acknowledging diversity while proposing equality for all.

Flecha (2000) suggests that, in an objectivist approach, it is the teachers' role to know the curriculum and to have an ability to teach it but the importance of content is not directly related to the students. In a constructivist approach Flecha (2000) notes that 'the most important element is the students learning, not the teachers teaching' (pg. 23). It is suggested that those teaching should acquire knowledge of meaning formation and the ability to initiate interventions that may improve learning. Flecha (2000) takes this one step further and adds that the dialogical idea goes beyond the constructivist approach, acknowledging that this does not rest solely with the teaching professional but 'on all the people and contexts related to the student's learning' (pg. 23). This intimates the importance of learning culture and communities of practice discussed later in the chapter in Section 2.6.

### **2.3.5. Problem Based Learning and Enquiry Based Learning**

PBL and EBL are both collaborative in their approach to learning and are on the socially constructed end of the peer learning continuum (Figure 2). PBL as discussed by Engel (1997) is ‘not just a method but a way of learning’ (pg. 17) while Deignan (2009) refers to it as a learning tool, and Harland (1998) an educational strategy. However all concur that it is a student-centred learning process, focusing on small groups of students working together to solve a problem known as the ‘trigger’ that is presented to the group at the beginning of the PBL process by the group facilitator. According to Barrett and Moore (2011), the PBL trigger can be ‘ a scenario, a case, a challenge, a visual prompt, a dilemma, a design brief or some other trigger designed to mobilise learning’ (pg. 4). Groups are self-directed, have allocated roles and learn independently with guidance from a tutor (Harland, 2002).

EBL, according to Price (2003), ‘is concerned with learning that is relevant to the practice situation and which develops the sorts of transferrable skills that have greatest value to practitioners’ (pg. 43). Furthermore, he suggests that EBL is ‘not shaped by topics or traditional divisions of learning but by means of inquiry and the ethos of discovering information’ (pg.43). Both EBL and PBL are similar in their educational approaches and Deignan (2009) cites the Higher Education Academy which sees EBL ‘as an umbrella term...to cover forms of learning driven by a process of enquiry, including the more widely known approach of PBL’ (pg. 13). With a contrasting view, Price (2003) distinguishes between EBL and PBL from a medical practice perspective, maintaining that, in practice one cannot always solve a problem (PBL) but that, in terms of EBL, ‘practice still requires exploration of different options and meanings’(pg. 42). The role of the group facilitator in the EBL setting sets group rules as in TCL, suggests resources, makes progress notes, and helps find the project focus. Another aspect important to the PBL and EBL approaches, according to Price (2003), is the importance of planning the information gathering. Yet Price (2003) contends that both PBL and EBL are about more than problem solving and investigating, they are about

‘discovering new ways to learn and collaborate’ (pg.83), adding that the lifelong skills of inquiry and analysis developed through the group learning process are important.

Once again the subtle differences and nuances between these learning environments, cooperative and collaborative learning, are hard to disentangle, not least because DL, EBL and PBL collaborative strategies as interactive learning environments share many of the same benefits. Parr and Townsend (2002) differentiate between cooperative and collaborative learning practices by identifying the aims of cooperative learning as student and tutor working together, in contrast to the CL approach, which aims for students to interact, respect and co-construct new shared knowledge with their peers. Moran and John Steiner (2004) distinguish social interaction from both cooperation and collaboration, stating:

‘Social interaction involves two or more people talking or in exchange, cooperation adds the constraint of shared purpose, and working together often provides coordination of effort. But collaboration involves an intricate blending of skills, temperaments, effort and sometimes personalities to realise a vision of something new and useful’ (pg. 11).

The practices of dialogic teaching and learning span peer, co-operative and collaborative approaches as interaction is distinguished in five ways from whole class teaching, to dyads including collaborative group work that is student-led. It is noted by Alexander (2008a) that group work led by the teacher is very different from student managed group work associated particularly with EBL, PBL and TCL.

The different strategies associated with group work and peer interaction examined in the preceding sections, support the ideas surrounding group learning. Reusser (2001) focuses on an understanding of the co-construction of knowledge in a group setting and identifies it as some sort of convergence or shared understanding which no single group member entirely possessed beforehand, and indicates its importance in that it may allow individuals to construct knowledge at a higher level than when working alone. However, this co-construction is seen as fragile, and the presence of collaborative interaction alluded to in the previous learning strategies, does not presume the co-construction of knowledge. Reusser (2001) adds that co-construction may or may not occur during the collaborative process, depending on the level of interaction. This indicates that the levels of interaction are a core element within peer learning environments, and in particular, are identified in this thesis as central to the proposed TCL environment.

Reflection also emerges from the collaborative interactions, encouraging the students to further question their ideas and to explore and communicate their learning experiences to their peers. In recent collaborative learning research as part of a study in a third level college, Osterholt & Barrett (2011) focus on students with disabilities and developed what they call the *social pragmatic development hierarchy model* as a means of improving engagement for these students. Their study was especially interested in the social behaviours that students needed to collaborate with their peers, including peer-to-peer communication, negotiation, and risk taking as higher level collaborative skills.

Their model identified four levels of student interaction: the isolated non-collaborative student; the conditional collaborative student; the unconditional collaborative student and the outreach collaborative student, and also identified the social and academic levels of interaction associated with each group. The conditional collaborative students 'show a willingness to engage with their familiar peer group' (Osterholt and Barrett, 2011:23) but have difficulty in a small



group setting. They function better when they can choose with whom they interact. The unconditional collaborative student can follow suggestions, shares ideas but would not be proactive in engagement. Finally the highest level, outreach collaborative students, have well-developed social skills and can direct small group work to stay on task.

The outcome of this research was to design a new curriculum that incorporated collaboration into every class to increase students' skills. In so doing the college's collaborative-centered approach to learning supported the development of social skills linked to academic achievement in the classroom setting.

Collaborative learning activities are tasks either set or agreed by the tutor for small groups. Using the same example as previously, the tutor will give the task, agree the groups and then ask the groups to complete the task. There will be no direction, no guiding the process. The tutor's role is now one of complete facilitation and observation. The tutor will not ask the groups for a specific number of sources but will assess the progress of the group, help with conflict challenges if asked or if they arise. The tutor can facilitate group discussions if required i.e. the group may ask for tutor intervention (Panitz, 1999) to help probe or tease out an issue. The tutor's role is fluid, gently guiding the process if and when required. Collaborative learning therefore allows the students to drive their own learning and together create their new understanding of the question asked.

In summary, peer tutoring is learning in a social context where the tutor controls the process. In the cooperative learning environment, the tutor directs learning but in the collaborative learning environment, the learning is socially constructed by the students and the tutor facilitates the process. As the peer learning continuum moves from peer to collaborative learning, the role of the tutor changes from controlling to facilitation and the role of the student moves from learning in

a social context to socially constructing their own learning (Parr and Townsend, 2002), as explained in the examples above.

Table 2 below illustrates the key differences in each collaborative learning environment with the new dimension of TCL added. The following section elaborates on the TCL environment offering a definition of TCL, and outlining the practices and challenges associated with this classroom environment.

## 2.4 True Collaborative Learning (TCL)

As I indicated earlier, the term TCL was first mentioned in the literature by Parr and Townsend (2002) who stated that:

*'In true collaborative learning, knowledge is genuinely socially constructed between or among individuals. One individual does not hold the knowledge; it is sought and negotiated together so that the one collaborative outcome is greater than the sum of its parts' (pg. 412).*

The benefit of this synergy is that it aids the group to create new emerging co-constructed knowledge. The TCL learning approach aims for students to interact with respect and co-construct new knowledge with their peers (Tolmie et al, 2010) with minimal input from tutors. Peer learning in its basic format is interpreted as learning in a social context, completing tasks together in a small group, in contrast to TCL at the other end of the continuum, which promotes learning as genuine and socially constructed by the group within the group. 'Genuine', as used by Parr and Townsend (2002), is not explicitly defined, but the phrase 'genuinely socially constructed' intimates that no one person holds the knowledge; hence the knowledge is created in an open manner, through dialogue between group members, building an understanding of a topic together from within the peer group. For example, this might involve a group of students coming into a classroom and through peer interaction, choosing and discussing a topic with minimal tutor input. In contrast, knowledge constructed in other peer learning environments is influenced by both the tutor and pre-specified curriculum. Examples here include PBL where the tutor sets the problem. In simple terms, learning in a social context means working together in groups to achieve a task usually pre-set by the teacher as in peer and co-operative learning in a more conventional process-orientated approach. In contrast, TCL creates a setting that is also social but the learning is 'socially constructed' within a group, meaning that the learning emerges or is initiated independently by the peers' social interactions and formed through high levels of uncertainty and discourse.

While CL practice in general advocates student engagement, active listening, articulation of ideas and peer interaction, the distinguishing differences between CL and the new collaborative dimension, namely TCL, are identified in Table 2 below. The table focuses on four distinct elements, extracted from the literature, all of which are inextricably linked to the collaborative environment, student, topic, interaction and tutor. In order to clarify the subtle differences, the table compares each type of peer environment under these common elements.

**Table 2: Comparative Analysis of Peer Learning Environments**

<b>Elements</b>	<b>Peer Tutoring</b>  (Falchikov, 2001)	<b>Co-operative Learning</b>  (Cohen 1994; Slavin, 1990; Summers et al, 2005; Tomie et al, 2010)	<b>Collaborative Learning(CL)</b>  (Boud et al, 2001; Summers et al , 2005)	<b>True Collaborative Learning (TCL)</b>  (Parr and Townsend, 2002)
<b>Student</b>	Student Pairs (2)  Tutor-Led	Small Groups (4-6)	Small Groups (4-6)	<b>Working Group (10-15)</b>  <b>Student-Led</b>
<b>Topic</b>	Highly Structured	Structured Tutor Assigned	Semi Structured Tutor Assigned	<b>Highly Unstructured and Emergent</b>  <b>Student-Driven</b>
<b>Interaction</b>	Uni-directional	Multi-directional	High Reciprocity	<b>Multi-Directional with High Levels of Uncertainty and Interaction.</b>
<b>Tutor</b>	Drives and Controls the process	Directs and monitors the process	Guides the Process	<b>Facilitates and Enables the process</b>

However, EBL and PBL, prior to my research study, would have been referred to in the literature as collaborative learning strategies used within collaborative learning environments. They are not included in Table 2 but discussed previously in Section 2.3.3. In trying to decipher whether they should be included in the TCL environment, the section that follows aims to identify what is specific to TCL as opposed to the other peer learning environments, examining the similarities and differences between these learning strategies.

Dialogic learning which, according to Flecha (2000), encompasses all aspects of learning has elements in common with all the peer learning environments including TCL. Dialogic learning requires five specific criteria, (Table 1), with teachers sharing a central role in the learning, while the tutor does not appear to hold such a central role in TCL environment nor have such clear set criteria associated with this learning approach. However the supportive criteria fit very closely with TCL where students are encouraged to voice their ideas in a safe supportive learning environment.

Peer tutoring, co-operative learning and collaborative learning environments are associated with small groups of two to six students (Summers et al, 2005). TCL, in contrast, needs larger working groups with approximately ten to fifteen members to promote diversity of thought and higher levels of interaction.

Table 2 highlights that collaborative tasks traditionally are structured or semi-structured and assigned by the tutor. TCL in contrast, is highly unstructured, emergent in nature and student-led. The TCL topic will be chosen by the students and emerge from the students' requirements, experiences and naturalistic collaborative discussion. In contrast, PBL tends to use a problem or scenario, given by the teacher to the group who may then assume certain roles in solving that problem. In TCL, the teacher does not specify nor choose the topic under

discussion. Instead, it is chosen by the students in an unstructured manner and no roles are assigned to the students. Therefore, PBL may have a more structured approach than TCL.

Interaction in the collaborative environment in general requires multi-directional high reciprocity and so too does TCL. High levels of interaction are critical to the TCL process and the emergent nature of the topic means that the interaction is aligned with high levels of uncertainty. The aim, for real learning, is a deep rather than surface approach to emerge from within the individuals and the group, adding another dimension to drive the student-interactions. In achieving deep level learning, Entwistle (1997) and McCune (2003) propose that students understand ideas for themselves, are able to link between topics, can use logic to argue critically and can relate it to the wider world. This contrasts with surface learning where the student 'does not make sense or meaning of the content, they simply try to memorise it' (McCune, 2003:41) accepting ideas, with little reflection or questioning. McCune (2003) considers that the deep approach 'enacted in an organised, effortful and reflective manner provides one possible proxy for high quality learning in higher education' (pg. 2). Below is a table adapted from McCune (2003) listing the attributes of deep and surface approaches to learning.

**Table 3: Deep and Surface Approaches to Learning (McCune, 2003)**

<b>Deep Approach</b>	<b>Surface Approach</b>
The intention to understand ideas for yourself	The intention to cope minimally with the course contents
Making links between topics	
Relating learning to the wider world	Studying without reflecting on purpose or strategy
Looking for patterns and underlying principles	
Checking evidence and relating it to conclusions	Treating the course as unrelated bits of knowledge
Examining logic and arguing cautiously	Memorising without understanding
Becoming actively interested in the course content.	Accepting ideas without questioning them

This table reflects some underlying practices of the interactions in the TCL environment, highlighted in the findings and discussion chapter, which encourage reflection, create some understanding of real world topics in practice and engage active interest from group members.

Finally, the tutor in the peer tutoring, co-operative learning and CL environment control and guide the process (Table 2). TCL emphasises learning as student-led not tutor-led, with the tutor relinquishing control. The tutor functions as an expert facilitator with minimal involvement but may probe to elicit further information on emerging issues if deemed necessary. EBL seems quite close in approach to TCL, both sharing the idea of enquiry, and exploration of a topic with a group facilitator. There may be some nuances in the methods of enquiry as EBL appears to focus on attaining and finding external materials to solve the problem, while TCL uses the group's own prior learning and placement experiences as a resource, with less focus on other outside resources.

In attempting to define TCL, an understanding of the preceding peer learning environments is necessary, as is an understanding of the learning strategies that are similar in approach to TCL. PBL, EBL and DL are strategies that appear fluid in their approach to learning, and are open to interpretation. However on reading the literature, there appear to be commonalities between TCL and these learning strategies. The following table shows some of the similarities and differences.



**Table 4: Comparative of TCL to PBL, EBL and DL**

Learning Strategy	Similarity to TCL	Difference to TCL	Exploring the nuanced differences (fuzziness) associated with each of these learning environments.
<b>PBL</b>	Both PBL and TCL are interactive peer learning environments.	PBL Students may be assigned roles TCL students have no assigned roles PBL Tutor gives the 'trigger' TCL students find a topic	PBL appears to be a more organised, purposeful role orientated independent learning environment, helped by the predefined roles and the tutor given trigger, suggesting an implicit input from the tutor in the process. TCL in contrast appears dis-organised, natural and non-process orientated. The purpose of TCL is to promote learning independence and is a far riskier environment as students have to negotiate through interaction with each other, their own topic of discussion. This topic may or may not emerge, and this can be both risky in terms of time and student learning.
<b>EBL</b>	Both learning environments encourage participants to focus on a topic or problem and explore it further.	EBL Research appears mandatory TCL Research not mandatory	The EBL environment appears to have some forethought associated with it. Groups come together to explore predefined ideas. While similar to TCL in that it does not necessarily need a definitive answer, TCL in contrast may place more importance on students co-constructing meaning together, using the group as their own resource, rather than using outside resources as is suggested in EBL.
<b>DL</b>	TCL is similar in approach to DL Criteria Number 3 Supportive in that both DL and TCL encourage verbal engagement with students helping each other reach common understanding in a supportive learning environment.	DL has 5 Specific Criteria; TCL currently does not have any. TCL is Different to Criteria Number 5 Purposeful. DL teachers plan and steer classroom talk with specific educational goals, TCL tutor does not plan or have specific educational goals.	DL is the closest to TCL and trying to create clear boundaries between the two learning environments is challenging. DL and TCL both have a strong foundation in learning through dialogue and supporting students in this process. DL has established criteria to help focus both student and teachers attain specific goals. The ethos of TCL is to try and help students in promoting an open learning forum, facilitated by a tutor, where naturalistic discussion allows these students not just create new meaning together, but in doing so to develop some listening, negotiation, critical thinking, reflective and other work ready skills. The subtle differences between these environments suggest that the underlying ethos of the TCL environment is crucial to its success in allowing the students manage and control their own learning in this facilitated safe learning space. The intangible nature of these subtleties in all three learning environments discussed, are indicative of the fluidity and uncertainty associated with the underlying nature of collaborative learning.

Following the characteristics of TCL that I have derived from the literature in Table 2, I now define it as:

‘a student-driven, multi-directional, highly interactive learning environment that enables students to work on highly unstructured and emergent topics with high levels of uncertainty, facilitated by a tutor’.

In summary, the linkage between PBL, EBL, DL and TCL is evident. PBL, EBL and DL are learning strategies that fit within the collaborative learning environment. TCL is also a collaborative environment. They therefore appear to share many of the same approaches to peer learning: encouraging discussion and dialogue in the classroom, interaction between peers and tutor, and a spirit of encouraging reflection and learning together. There do however, appear to be subtle differences between these learning strategies and the TCL environment, as outlined in Table 4, explored further through an insider case study, discussed in the next chapter.

## **2.5 Collaborative learning Practices and Challenges**

Collaborative learning practices encompass a broad range of elements from group size, group composition and development, group interaction, negotiation and decision making, structure of the task, tutors role, timeliness and the learning environment. The main factors that emerged from the review of the literature which influence the collaborative process are the student, the task, the tutor and the interaction (Cohen, 1994; Parr and Townsend, 2002; Webb, 1989). Assessment of collaborative work is also an important factor but is not included in the four elements in Table 2 as the collaborative interactions in the TCL environment are not assessed either formatively or summatively in the context that forms the basis for the fieldwork in this study. There is no group assessment

and students submit an individual learning log at the end of the semester. Although the group collaboration in this context is truly collaborative as there is no grade associated with the collaboration, the pressures and implications of assessment are discussed in Section 2.5.4.

It may seem that the following section of literature is repetitive as this story is told from four different perspectives; the student, the topic, the interaction and the tutor. These key elements of CL are now addressed, aligning both the benefits and tensions associated with the collaborative process in the literature: in other words, the tensions and the benefits that work in tandem, to generate and hence create a TCL environment. This also takes account of the criticisms of this learning environment in the literature.

### **2.5.1 Students**

#### **Tensions in Collaborative Learning**

Despite many claimed benefits of learning collaboratively there are also tensions. For example, it advocates the group approach and some students may not necessarily benefit from this learning environment, preferring to work independently. Other tensions include student status, student ability, independent voice, inefficient use of students' time, fairness, freeloading, lack of ground rules, failure to meet deadlines, attendance and absenteeism. The following sections deal briefly with these tensions.

#### ***Student Status***

Co-operative research studies saw student status as an important aspect of group work. Cohen (1994) defines status as 'socially evaluated attributes of individuals for which it is generally believed, that it is better to be in the high state than the low state' (pg. 24). These status differences could be perceived to be academic

ability, gender, race and social status (among others) and may affect interaction. Cohen (1994) argues that those perceived as having higher status within the group were likely to interact more frequently and subsequently be perceived as more influential. This therefore has an important impact on the group because it may lack the contributions of all group members.

### ***Student ability***

In the Institute under study, concerns regarding age and student ability would not, in the past have posed academic difficulties since all H.E. students were processed by third level educational entry requirements on modules and courses, ensuring a broad parity of ability between each student cohort. However, in a business school meeting in December 2014, an interesting fact on student intake was noted: in recent years only 50 % of our students come through the Central Applications Office (the Irish third level formal entry system) process while the other 50% are now gaining entry through other pathways. To date, outliers in terms of mature students and international students, who may have language or cultural difficulties in a group work setting, have not applied for this module, but these outliers and the associated challenges that might arise may have to be addressed in future cohorts.

### ***Independent Voice***

Trimbur (1989) argues that collaborative learning may ‘stifle individual voices’ (pg. 602) and that some members of the group may conform to the group idea rather than expressing their own individual ideas, consequently preventing individual creativity. This concern may be minimised in the TCL classroom, primarily because there is no set curriculum or assessment demands; it is an emergent process encouraging independent voices facilitated by the tutor. There is also the concern that making group members responsible for its members learning is placing too great a burden on the other group members (Boud et al, 1999). TCL

encourages all group members to be responsible for their own learning, contributing to the group, with the eventual aim of co-constructing knowledge.

### ***Use of Time***

Concerns are expressed that learning collaboratively can be an inefficient use of student time (Edmund & Tiggeman, 2009) and takes away from time that the tutor can be preparing them for the test (Ulrich and Glendon, 2005). While inefficient use of time is a tension in group learning, Isaac (2012) acknowledges that group work may be slower. However, in the TCL environment this may be diminished by the tutor's management of the process. For example, an experienced tutor will guide the process by gentle probing or questioning if there is a lack of direction or a sense of aimlessness in the discussion.

### ***Social Loafers***

The problem of fairness (Isaac, 2012) relates to student resistance to group work, along with the idea of being dependent on peers. Nelson (2011) acknowledges the possibility of 'a slacker in the group who doesn't do anything and still gets the good grade' (pg.41). The passengers or free riders (Clark and Blissenden, 2013:370) are other terms for social loafers. These free riders concern students particularly in a group assessment setting, because of their lack of contribution to the group, which may impact the eventual group grade. These issues are discussed from a tutor's perspective in Section 2.5.4 on assessing collaborative learning.

### ***Attendance and Absenteeism***

To manage TCL successfully in the HE classroom, students must attend class but attendance in itself is not enough as students must contribute actively to the process. Absenteeism is a barrier to TCL as students who do not attend cannot learn from their peers and therefore cannot contribute or benefit from the TCL

environment. Falchikov (2001) identifies key factors as contributors to absenteeism problems: students not being as motivated as they once were, while the tutor's preparation or lack of, for these CL classes is questioned by the students. The tutor's role is a key factor in managing the TCL process.

Problems with absenteeism and its contributing factors add to the complexity of practising TCL successfully in the H.E. classroom. Attendance policies have been offered as a solution to student absenteeism. There is debate among academics and institutes at present about the status of students and whether they should be viewed as clients. Combined with the increasing pressure on educational establishments, regarding the emergence of surveys and measures of student satisfaction, this discourse and subsequent solutions become more complicated. It is argued that it is the students' choice whether they attend class or not, others argue that by putting attendance policies in place, the tutor keeps the students acting as children and that this behaviour should not be associated with students in H.E., particularly in a TCL environment. Falchikov (2001) cites Aera (1999), an educator who has changed his mind on attendance and now acknowledges the benefit of an attendance policy, stating: 'There is more that occurs in the classroom than is testable. Students who...do not attend class are missing out on an important part of the learning community we call higher education' (Falchikov 2001:216).

In the specific context of this study, there is a learning contract between the student and the college that once signed by the student requires a minimum of 80% attendance for the TCL sessions in order to pass the module. All students are required to sign the declaration prior to starting the module and in the past students have been more likely to explain their absences to me in a similar vein to the experience of Isaac (2012). Managing absenteeism, according to Isaac (2012), is a combination of elements, firstly the tutor recognising to the group that the absence of a group member is noted, and secondly suggesting a solution to

working without that member, as Isaac's (2012) practice requires each group member to have a specific role. This removes the responsibility from the group members present of having to complain about absent members. Isaac (2012) notes that once absent students were aware of the practice 'there was a substantial increase of students alerting her before or after an absence' (pg. 86) as to how they were supporting their group by taking on different responsibilities.

### ***Students' Resistance to Collaborative Tasks and Assessment***

Panitz (1996) discusses resistance not just from the tutors' perspective but also from the students. Historically the educational philosophy in Irish post-primary education has tended to promote a competitive, individualistic rote learning environment, as individual students focus on attaining points in the Leaving Certificate examination to enable them to enter the tertiary system. This traditional state exam is a formal examination process completed at the end of secondary school, prior to entry to 3<sup>rd</sup> level. A key challenge is that students view assessment as part of this formal learning process and, in the traditional classroom, the assessment of this process is individualistic and usually examination-based (Johnson and Johnson, 1991).

In contrast, collaborative learning either favours non-traditional assessment or no formal assessment at all. Yet these characteristics may not be understood or perceived by students as important or beneficial to them. In a case study with student teachers, Allan (1999) found that students were resistant to methods that differed from the expected lecture format of H.E. Falchikov (2001) believes this resistance to peer learning by college students is due to a lack of training. Isaac (2012) proposes that setting explicit ground rules prior to group collaboration in order to clarify rules and expectations may help students engage in the process, and that creating these rules minimises the presence of social loafers in the group setting. Littleton and Mercer (2013) acknowledge the role of cultural norms, for example students attending lectures should not talk, raise a hand to ask a question

and keep questions short, reasoning that rules may be changed. But, for tutors who want more interaction and more active engagement in the classroom new ground rules would have to be introduced. Kolb and Kolb (2005) add to the debate by highlighting a deeper problem, namely that our students, contrary to our expectations, are not ready to take responsibility for their own learning and are therefore not prepared for this idea, suggesting that students need to be prepared for the active learning environment and that setting agreed ground rules may lessen their resistance. Littleton and Mercer (2013) give examples of ground rules for working in a group. Some of these include that everyone offers relevant information, all ideas are treated as worthwhile, students should work as a team and try to reach consensus. The reciprocal nature of collaborative learning presents assessment challenges both for the student and tutor (Boud et al, 1999). Race (2001) comments on peer assessment and suggests that the only members of the group can decide on the contribution of each group member.

Boud et al (2001) acknowledges that some high achieving students dislike group work as it can impact negatively on their grades. Citing Macaro's (1997) study where Athanasiou (2007) reports that students in H.E. were resistant to group work. This was evidenced for example when someone in the group was unwilling to cooperate or felt they would rather talk to the tutor. Students felt that group challenges should be solved by the tutor, while others expressed some dissatisfaction that they were in fact teaching themselves, doing the tutor's job (Ulrich and Glendon, 2005). This supports Boud et al's (2001) comment on the irony of needing tutors to facilitate 'independent' group learning, suggesting that TCL requires insight from both student and tutor, to ensure that the TCL environment prevails. Resistance to collaborative learning classroom activities should therefore be acknowledged and challenged by all parties, in order for the full potential of learning collaboratively in the HE classroom environment to be realised.



In summary, relating student tensions and resistance to TCL particularly in terms of assessment is challenging as there is no grade associated with the TCL in this setting. Student buy-in is therefore essential. In line with Vygotsky's (1978) social constructivist approach, this study explores the students' levels of development through interaction in the TCL environment, hoping to reveal the potential that this peer-enabled environment may provide, to enable them to reach their learning potential, rather than a grade, in an independent H.E. environment. Peer assessment in the TCL setting is an informal ongoing process, embedded in high levels of interaction within the group. Students peer assess unconsciously as they listen to the group, interject and add to the ongoing discussion. A barrier to this informal assessment is that group members must listen in order to contribute and subsequently peer assess.

### **2.5.2 Task Structure**

The nature and structure of the TCL topic is an important feature of the interaction in the TCL environment. Some topics are better suited to group work and have, according to Cohen (1994), right answers while other topics are not so clear cut. In order to be termed truly collaborative, a topic requires that group members have a common shared goal. In the context of TCL, and in contrast to tutor or pre-set curriculum in other learning approaches, the students negotiate their own topic to discuss, thereby creating a mutual awareness of a shared interest. This empowers them to work together as a group, where all group members in relative terms (i.e. no two people have exactly the same amount of knowledge) can perform or contribute at approximately the same level (Dillenbourg, 1999). The topic needs to be designed to promote interaction and group debate to fulfil the learning outcomes. Whilst the topic is unstructured, it should encourage group interaction, contain enough elements to enable individual learning, and require high level group interaction to promote co-constructed learning (Boud et al, 2001).

Task instructions can be simple, ranging from directing students in the group to interact with each other to assigning specific roles to group members. Over-specification of roles tends to turn collaborative learning into a learning method: for example reciprocal teaching, rather than an interactive collaborative process (Dillenbourg, 1999). Group members may simply be given material to learn and expected to solve problems on this material, with no specific role of tutor or tutee (Webb, 1989). According to Cohen (1994) when the task is routine i.e. there is a right answer, the students may help each other understand what the textbook is saying by offering each other 'substantive and procedural information (pg. 4), while the ill-structured or complex problem requires a greater level of conceptual learning and collaborative interaction in which ideas, strategies and speculations are shared between group members. Mercer (2000) argues that one must see tasks not just as concrete activities (for example making a jigsaw, or solving a maths problem) but as more abstract activities that use language to discuss experiences, problems and ideas. Barron (2003) highlights the importance of the content of the problem and how it is inherently linked to participant interactions and the management of those interactions.

The term group task implies that it should not be solvable by an individual and that multiple resources or inputs are required to solve it. Cohen (1994) proposes that 'under the conditions of a group task and an ill-structured problem, interaction is vital to productivity' (pg. 8). These ill-structured problems are undefined, imprecise and inexact, requiring students to interact and work together. Structuring a task that creates controversy, that is a task that is not argumentative but rather generates reasoned, thoughtful discussion, can stimulate student interaction, higher order thinking and encourage CL. Complex tasks requiring higher order thinking skills are more open ended, less structured and foster high level interaction and elaborated discussions. If the objective of the collaborative approach is to foster higher order thinking skills, then tasks that constrain that level of interaction are not conducive, implying that the task can be both a barrier and a tension in the TCL classroom.

Learning collaboratively is only deemed successful when the five learning elements of positive interdependence, interaction, individual accountability, social skills and group self-evaluation are used (Johnson et al, 1994). If some of the elements are omitted, the learning is in danger of regressing to being nothing more than group work. In conclusion, the highly unstructured topic student selected is a key element contributing to the attainable practice of TCL in this learning environment.

### **2.5.3 Group Interaction**

Interaction can be defined as the interpersonal behaviour between members of a group including verbal, non-verbal, visual, body language, vocal pitch, pace and tone and all other often indefinable nuances of this interpersonal interaction (Barron, 2003). It is a key component of the collaborative process and an important element in the implementation of collaborative learning practice, both in the classroom and the workplace.

It is essential for students entering the workplace to be able to work with others, communicate effectively, think critically and interact in a professional manner (Littleton and Mercer, 2013). Using interactive group learning challenges students to develop these necessary skills (Ulrich and Glendon, 2005). Peer interaction in the TCL classroom is regarded as a reciprocal process, dominated by peer interaction, allowing students to ‘search for new shared understanding’ together (Parr & Townsend, 2002:406), while embedded in this learning domain is the idea of intellectual group negotiation and collective decision making (Dillenbourg, 1999; Laal and Laal, 2012; Trimbur, 1989). This interactive process can stimulate high level thinking skills, critical practice and may promote an active rather than passive learning environment that allows students to socially construct their learning together as a group.

Barnes and Todd (1977) ponder the interaction process by suggesting that student contributions may not be clear even to the student at the time of interaction, but in a conversational setting, when meaning is negotiated on a moment by moment basis, such interactions can have relevance later, after reflection. This is integral to a social constructivist approach which according to Palincsar (1998) focuses ‘on the interdependence of social and individual processes in the co-construction of knowledge’ (pg.345) while Oxford (1997) understands it as an emphasis ‘on the learning process’(pg.448). The underlying debate in the literature is whether it is effective to structure interaction and how much structure should be put in place. Constraining or forcing interaction may impact or limit the exchange process. At this point, Cohen (1994) states that ‘effective interaction should be more of a mutual exchange process in which ideas, hypotheses, strategies and speculations are shared’ (pg. 4), thereby allowing interaction to remain natural and unaffected. The quality of the interactions will be dependent on regulating group members’ attention, promoting joint engagement and leading to active focused member contributions (Barron, 2003).

The joint engagement and contribution of members can be linked to suggestions by Vygotsky (1978) that language influences how we think and that cognitive development is a social communicative process. The pedagogies that emerge from this idea explore how conversations around learning activities may constrain or expand a student’s ability to learn and consider the construction of knowledge as a joint process between teacher and student. The role of the teacher, according to Vygotsky (1978), may be as a facilitator to guide student learning in order to help the student construct a deeper understanding of the activity, crossing the zone of proximal development (ZPD). Vygotsky (1978) believed that a student starts an activity with a current level of understanding and that, by instruction or help from capable others, could cross the ZPD to reach a greater level of understanding. Vygotsky (1978) explained ZPD as ‘the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance or in

collaboration with more capable peers' (pg. 86). Vygotsky (1978) suggests that 'what is the zone of proximal development today will be the actual development level tomorrow' (pg. 87).

Bruner (1975) used the metaphor of scaffolding as a means of helping learners to bridge this ZPD gap. Successful scaffolding however, means that the teacher or students involved have to be sensitive to the levels of ability of those in the group, in order to provide the necessary level of support at any time. Mercer (2000) suggests that 'the concept of scaffolding must be re-interpreted to fit the classroom' (pg.74) and scaffolding may include praising students, suggesting a word or giving a hint. Many people, not just a tutor or peer can scaffold a student's needs in the learning environment and Lave and Wenger (1991) allude to this in their discussion on communities of practice, explored in detail later in the chapter.

In practical terms, the stage of group development may influence the quality of the interaction and the level of learning. Jaques (2000) outlines the well-known generic stages of group development including forming, storming, norming and performing, acknowledging that these stages may take time and suggesting that in order to achieve greater performance measures, a sense of collaborative identity has to develop within the group. He reflects that, at the performing stage the tutor's role should be one of resource or consultant to the group. This endorses the view of Johnson and Johnson (1987) who suggests that, in the H.E. context, a tutor has involvement throughout the process. In general, Jaques (2000) states that studies have shown that 'the broader the participation among members of a group, the deeper the interest and involvement will be' (pg. 23).

Interaction can be both a barrier and a tension in the TCL process. When a student does not interact within the group, this does not mean that he or she has not engaged during the process, just that he or she may not have articulated that engagement. Palincsar (1998) notes, that Vygotsky's philosophy was based on the 'notion that human activities take place in cultural contexts and are mediated by language and other symbol systems (pg. 371). In discussing multimodal communication Norris (2004) acknowledges the primacy of verbal communication and acknowledges that 'language has been viewed as the central channel in interaction' (pg. 2) but argues that it is only one mode of communication. Barnes and Todd (1995) add that some of the negotiation during collaboration is carried out through non-verbal modes of communication. Jewitt (2009) also 'expands the focus of interaction 'away from interaction as linguistic to explore how people employ gesture, gaze, posture movement, space and objects to mediate interaction in a given context' (pg.34). A multimodal understanding therefore encompasses and recognises the importance of non-verbal communication e.g. proxemics, posture, gesture and head movements as discussed in the methodology. Nevertheless non-interaction by a student may be seen as a barrier to the rest of the group and influence the TCL process. Interaction and management of that interaction by the tutor is therefore a very important part of the TCL environment, and observation of these interactions or non-interactions is discussed further in the methodology and the findings.

A relevant question might be, 'under what conditions would it be productive to structure interactions', (Cohen, 1994). The overall conclusion in relation to doing this, using scripts and roles, is that it can be successful for routine tasks where the student may need to understand the reading or recall facts. Interaction rules can promote success by raising engagement through scaffolding productive interaction by assigning roles and raising the level of discourse (Dillenbourg, 1999). But interaction can be potentially constrained if those involved in a group task are given individual worksheets to complete and advised to help one another. There is limited exchange, little negotiation and no room for discussion and when the

focus of interaction becomes one of getting the right answers. For low level outcomes, constrained or structured interaction are adequate and sometimes superior but for higher order thinking, interaction must be more open and less constrained by structure, roles or curriculum (Cohen, 1994).

### ***Teaching Students Collaborative Skills***

It is acknowledged that both social and cognitive skills are required for collaborative practice but the literature questions whether these should be taught or not before students are introduced into the collaborative learning environment (Cohen, 1994; Mercer, 1995). Cognitive skills include constructing meaning for a task using evidence and recreating experience. These contrast with social skills that focus on task management, conflict management, ability to manage competition and a willingness to accept differing viewpoints (Cohen, 1994). In contrast to natural collaboration, in their study of group work, Colbeck et al (2000) found that students reported the benefits of prior experience of group work as helping them collaborate more effectively. This endorses the idea that school practices can influence how children collaborate.

### ***Dialogue in Interaction***

Equity in interaction, the proportion of participation, is an important element in the collaborative practice. The pattern of participation or dialogue may be an important indicator within the group environment but is dependent on the specific requirements of the group in a particular context (Jaques, 2000). This dialogue can be categorised in multiple ways by simply counting the frequency of interaction, acknowledging dialogue style and noting the length of contribution. Dialogue plays a large role in the collaborative learning environment but not all talk or collaboration may be educationally valuable. Mercer (1995) emphasises that students must have to talk, to participate in the task, in order to encourage their

interactions be meaningful so that the conversation ‘is not merely an incidental accompaniment’ (pg.98).

Learning talk according to Alexander (2008a) is student-focused. It suggests a repertoire of abilities that students need to develop including ‘narrate, explain, instruct, ask different kinds of questions, receive, act and build upon answers, analyse and solve problems, speculate and imagine, explore and evaluate ideas, discuss, argue, reason, justify and negotiate’ (pg.112), while Mercer (1995) recognises the importance of students’ interactions by presenting ideas clearly so the group can share and evaluate together, allowing students to ‘reason together’ (pg.98) so that this reasoning is evident to the teacher and is ‘visible in the talk’ (pg.98). As an interactive tool, this dialogue is a key element that drives, assembles and assists in promoting the sharing of ideas between group members. Mercer’s (1995) research suggests four conditions that help the development of this kind of talk, pointing out that students should have to talk to complete the task or activity, that this activity should encourage co-operation rather than competition, that all participants should understand the purpose of the activity (supporting Barnes and Todd’s (1995) research) and lastly that the ground rules associated with the activity encourages free exchange of ideas. However, Alexander (2008a) also notes that for students to benefit from the interactions, four other abilities are entailed: the ability ‘to listen, to be receptive to alternative viewpoints, to think about what they hear and to give others time to think’ (pg.112).

Barron (2003) organised dialogue into three responses as accept (agreeing with the speaker), discuss (facilitating further discussion) or reject (ignoring the point and not promoting further discussion) while Hogan et al (2000) used three patterns to recognise dialogue: consensual, responsive and elaborative. Mercer (1995) outlines three ways of talking: *disputational*, *cumulative* and *exploratory*. Disputational can be competitive and may lack pooling of resources or



constructive criticism, creating a defensive dialogue rather than a supportive sharing form of talk. In comparison cumulative talk is repetitive with students supporting each other's ideas and the dialogue is, according to Mercer (1995), repetitive, conformational and elaborative but lacking criticality. Exploratory talk allows students to engage with each other's ideas critically and constructively encouraging and considering the views of all the group members enabling consensus through conversation as considered in the TCL environment. While exploratory talk has been found the most effective for problem solving the research, undertaken in primary schools, noted that it only occurred sporadically and was not always evident in the sessions (Mercer, 1995). Littleton and Mercer (2013) concur with this, noting that children are not taught how to use talk in a collaborative setting and that these skills are rarely part of the curriculum, an indicator of the low occurrences of exploratory talk in classrooms, talk 'that is most productive for problem solving and collaborative learning' (pg.72).

Barnes and Todd (1995) working with 13 year olds explored how, and what, students have to do to construct knowledge in a group setting. They worked with teachers and set tasks for the groups recording the sessions. Four categories emerged initiating, eliciting, extending and qualifying. These categories they propose aid 'purposive group discussion' (pg. 26) enabling discussions to be shaped tacitly as in the TCL setting.

1. The initiating phase is where someone appears to introduce a new topic and may use utterances like 'I think'.
2. Eliciting focuses on sustaining the conversation and 'how they invite one another to contribute' (Barnes and Todd, 1995:30), and their study distinguishes four types of eliciting, encouraging someone to continue what they are saying (e.g. Go on, go on), to expand on a previous comment, to support an opinion (e.g. isn't it?...) and finally requesting more information.
3. Extending occurs when one person takes on the idea of another and extends it further.

4. Qualifying is extending what a previous person has said but adding to the complexity of the idea. Barnes and Todd(1995) state that extending and qualifying are moves that ‘form the staple of collaborative dialogue’ (pg. 35)

While Barnes and Todd (1995), Mercer (1995), Hogan et al (2000) and Barron (2003) identify their dialogues using different terms, there appears in each case to be some commonalities evident between all the authors’ dialogue categories. These will be applied to the data from this study in the analysis and discussion chapters.

### ***Group Composition***

What the literature does reinforce is the importance of groups in the collaborative learning process (Laal and Laal, 2012; Parr and Townsend, 2002). Group composition identifies significant variables such as age, group size and student levels of development (Srivinas, 2011). The idea of friendship, shared past experiences, prior knowledge (Barron, 2003) and increased levels of interest may encourage more productive dialogue and interaction within the group. Barnes and Todd (1995) note that groups who met more regularly showed greater support of one another and that a greater sense of group identity appeared to have formed, in contrast to groups who only met once or twice. Conversely, however, friendship and prior knowledge may create comfort zones and a group think environment (Littleton and Mercer, 2013), where group members are unwilling to challenge one another, thereby hindering the group process.

Group size determined by the tutor should be set to suit the task given. According to Sriviniyas (2011), small groups prove more effective than large groups because it is more difficult in large groups for all group members to be involved in all interactions. However, there is little consensus or clarity in the literature regarding

specific group sizes: small groups sizes span between three and six and large groups are referred to as ten or more (Jaques, 2000). What is apparent in terms of member interaction is that there is a direct correlation between group size and the member contribution. Even in smaller groups, contributions will be unequal but in larger groups this is likely to be magnified, with main contributors continuing to contribute at the same rate but with quieter members contributing even less than in a small group setting (Jaques, 2000). Larger groups may provide a greater mix of students in contrast to smaller groups where the mix may be too narrow and constrain information dissemination. In contrast, Barron (2003) notes that factors of trust and collaborative close relationships are easier to foster in the small group learning environment. Another issue associated with larger groups is the presence of cliques, where sub-groups could impact negatively the behaviour of the entire group. In direct contrast, there can be pairs or triads within the group who promote and drive each other and the group in a collaborative manner (Barron, 2003). For TCL the ideal group size is greater than 10 but no more than 15. In this research, group size is determined by both the module which is limited to a maximum of fifteen. Consequently this year's cohort of twelve formed the group under study and is discussed in detail in Chapter 4, Section 4.1.

It is established, however, that expectations of group members should be agreed among the group prior to commencing the task in order to set pre-agreed accepted rules and practices for the group to follow (Johnson and Johnson, 1994). The concept of a collaborative activity in a classroom, particularly with group and tutor agreed rules and procedures, supports the idea of a social contract between the student and the tutor (Dillenbourg, 1999).

### ***Physical Environment***

The CL space for group work requires both physical space and other specific requirements. Ideally classrooms designed with free seating, adequate space, situated where groups can interact freely with necessary resources, for example

whiteboards, flipcharts and IT access, available to them, to complete assigned tasks. The traditional classroom at primary and post primary levels in Ireland have free seating arrangements as the norm, while third level and H.E. have a higher propensity to fixed seating. Free seating is an important physical element of group work.

Taylor (2014) concurs with the importance of physical and mental space and in line with TCL, states that ‘if we truly want creative generation of ideas and collaborative construction of knowledge in our classrooms...we also need to take account of the work of modes other than language’ (pg. 418). Panitz (1996) identified that tutors found the physical environment hard to manage; for example fixed seating rooms made the process prohibitive and when working with large groups, the noise was distracting. Barron (2003) comments on the considerations of taking account of students’ feelings with regard to furniture layout and seating requirements, and emphasises that the tutor not be over-concerned with seating, if it causes the students to be upset or unsettled.

#### **2.5.4 Tutor’s Role**

For tutors to manage and develop an interactive CL environment, they need to understand collaborative exchange (Barron, 2003). Cohen (1994) notes that tutors who want higher order verbal interaction between students, should recognise that these students ‘will require specific development of skills for discourse, either in advance of co-operative learning or through direct assistance when groups are in operation’ (pg. 7). Mercer (1995) suggests that teachers cannot assume that students know how to learn together and may need guidance on how to use talk in the classroom. Barnes and Todd (1977) consider that instruction in social skills would help promote desired behaviours. The dilemma for tutors is that if they do nothing to structure interaction, only low level learning may occur, while by

structuring the interaction too much, they may prevent high levels of learning and the benefits of interaction (Cohen, 1994).

The tutor's role of fostering interaction within the collaborative learning classroom is important and grows increasingly so where less structured topics are used with larger group sizes. In an international study of dialogic teaching, and particularly 'teaching talk', Alexander (2008a) alludes to this when he classifies teachers' talk into five categories *rote, recitation, instruction, discussion and dialogue*. The first three rote, recitation and instruction Alexander (2008a) recognised as traditional means of teaching. The last two, found less frequently in the study, discussion and dialogue, were identified as the forms of talk most in line with pupil-led collaborative group work. The tutor's role then becomes a facilitative one monitoring group members' interaction with minimum verbal and non-verbal intervention to keep the task on track. The non-verbal interventions may include maintaining eye contact with the group, glancing in someone's direction, nodding in agreement and checking group members' expressions for understanding. Verbal interventions include, questioning a student statement, inviting a student to contribute or deflecting a question back to the group (Jaques, 2000). As a facilitator of group learning through dialogue, Alexander's (2008a) cumulative teaching criteria (Table 1) challenge the tutors' role by testing his/her ability to 'receive and review' (pg. 118) students' contributions and to make instant decisions on whether or how it can progress their learning. This implies the importance of the tutors' role in this learning environment.

### ***Tutor Tensions***

As many practitioners and researchers will recognise a key tension arising in H.E. stems from demands on tutors in this learning environment to cope with more students with fewer contact hours. The combination of these factors and the expectation of getting good grades put pressure on tutors, particularly in the CL environment. For example, collaborative tasks are often not given enough time.

From personal experience, much of the time is initially used setting up the groups, reminding them of the ground rules and setting groups down to work and not enough time in achieving ‘the constructivist goal of students making meaning together’ (Nelson, 2011:41). In the Irish H.E. Sector, class duration is usually an hour although can be a double when requested. In one hour, many of the groups only achieve lower level thinking, but a two hour class may allow the group time to achieve higher order thinking, explore ideas and develop and clarify ideas together in a collaborative process. Similarly it gives the tutor time to facilitate groups who need help to achieve richness of discussion, supporting them to grow in the confidence and learn the skills to function at this level.

The difficulty in learning how to manage a peer learning activity is discussed in the literature (Slavin, 1990). It takes the tutor time and practice to develop the skills required to be comfortable in a peer learning activity. There are multiple roles in a group discussion including leader, neutral chair, commentator and facilitator (Jaques, 2000). The tensions between the traditional style of telling in comparison to the new role of observing, listening, assessing and eliciting information from the periphery, create difficulties both for the tutor and the student (Jaques, 2000). A barrier to implementing TCL may stem from tutors opposing change. While the literature offers some insights into training tutors in the broader field of peer learning (Boud et al, 2001), there appears to be a gap in the literature regarding the requirements of tutors to implement and use TCL successfully in a H.E. environment. This thesis aims to contribute to understanding more deeply the nuances of the tutor’s role in implementing and enacting TCL, considered further in the analysis and discussion.

The tutor has also been identified as a contributor to difficulties in managing peer learning in the classroom. For example students can feel that group work and the collaborative peer learning elements of the course, and the related learning outcomes, are not explained to them in the same detail as the traditional lecture

approach (Falchikov, 2001). Tutors therefore need to explain the process, relate it to students' needs, allow the students a voice in the process and explain its value (Barron, 2003). Rewarding the student for active engagement is essential if CL is to work. By taking this approach to the process, both the student and the tutor will understand what is required in this environment.

### ***Tutor's Assessment of Collaborative learning***

Assessing and evaluating collaborative learning is important as it allows tutors to reflect on whether the learning achieves what it sets out to do. In considering these requirements, Boud et al (1999) state that validly assessing 'the collaborative outcomes of reciprocal peer learning requires an approach differing from traditional methods which rely on assessment as a means of ranking students' (pg. 419) but also note that assessing group work can be time consuming, difficult to get right and can be damaging to the ideal of group learning.

Difficulties in assessment, particularly in CL, can be attributed to three main areas; the students, the tutor and the course design (Isaac, 2010). Collaborative learning outcomes are hard to assess because they are related to group interaction, communication, self-assessment and reflection. In contrast to the more traditional exam based curriculum where a student may never come to class but may still pass the final written exam paper, assessing the collaborative approach to learning requires the students not only to attend class, but to be seen to contribute or engage with the process. Absenteeism and its contributing factors as discussed earlier, add to the complexity of assessing classroom TCL from the tutor's perspective.

Approaches to group assessment vary, with some tutors deciding to give a group grade, and others who purposively 'de-emphasise the relationship between group

work and grades' (Isaac, 2012; 87). Collaborative learning is driven by group interaction and group work and how the tutor rewards the student may have a distinct impact on interaction (Webb, 1989). However assessment affects students' attitudes to CL: if the grade is individualistic, the competitive instinct in group members may lead them to withhold explanations or only give low level explanations with lower level interactions. In contrast, rewarding the group with a group mark has been shown to promote more peer interaction (Slavin, 1990).

Clarke and Blissenden (2013) discuss the difficulties of assigning individual marks for group work, referring to more traditional assessment where 'assessment frameworks are usually structured for individual learners' (pg.373) and questioning how to structure assessment frameworks to accommodate group work' (pg. 373). In their context, the group work took place over a period of four weeks with each student submitting an individual assignment at the end of the group work. In my research study, the group collaboration (i.e. the student interactions) is not assessed. Rather it is an environment designed to facilitate group dialogue and group and individual learning, but the students submit an individual learning log graded on a pass/fail basis at the end of term. There is a tentative implication that as these students are not being assessed on group interaction, in this context the collaboration could be perceived as 'true' collaboration. This lack of assessment pressure may therefore be an important benefit of the TCL process in this context.

Peer and self-assessment are other methods used to assess collaborative learning environments (Isaac, 2012). However Nelson (2011) emphasises the importance of collaborative learning processes that underpin the group learning environment and, in order to encourage students to take responsibility for these internal processes, proposes that the tutor should encourage the group to set their own norms or protocols. Her example of peer assessment is a situation where one student gave another group member high marks because he/she typed up the



presentation but gave himself low marks because he only did the research. Nelson (2011) only discovered this when she asked the students for their feedback on internal processes. Emerging from this example is the underlying reflection that group assessment benefits from a tutor with collaborative learning experience and who is expert in setting up, facilitating and assessing this complex and challenging learning environment. As I shall argue, tutor expertise is important all the way through the TCL process.

The tensions surrounding collaborative assessment are hampered by research to date that has focused on ‘fruitless debates about intrinsic and extrinsic rewards and goal and resource independence’ (Cohen, 1994:30). Instead, Cohen (1994) maintains the focus should be on group tasks and interaction that helps practitioners make groups more productive. Dillenbourg (1999) acknowledges that the effects of collaborative learning are often assessed by individual measures but that group measurement is important because collaboration is expected of professionals in the workplace today. From this perspective it is therefore the responsibility of educational establishments to improve students’ performance in collaborative situations.

## 2.6 Learning Culture

True collaborative learning takes place within a learning site e.g. a specific classroom, or college, influenced by the learning environment, and all the related features of these are encompassed within the learning culture. Hodkinson et al (2007) discuss the boundaries surrounding learning sites and learning cultures, explaining that ‘while learning sites can have relatively clearly defined boundaries the factors that constitute the learning culture of a particular site do not. They spread well beyond the site itself.’ (pg.421). I see learning culture as an invisible overarching presence within which educational organisations; tutors, students and other stakeholders interrelate. Davies and Ecclestone (2008) define learning culture as not being ‘the same as a course or programme; rather it is a particular way of understanding any course /programme by emphasising the significance of the interactions and practices that take place within and through it’ (pg. 74). In this vein, Hodkinson, Biesta, and James (2007) state ‘that a learning culture is not the same as a learning site. Rather, it is a particular way to understand a learning site as a practice constituted by the actions, dispositions and interpretations of the participants’ (pg. 419). The intangibility of a learning culture, is described in simple terms by Hodkinson et al (2007) who see learning culture as ‘the social practices through which people learn’ (pg. 419). Examining these definitions of learning culture makes it apparent that interpretation, action and interaction, the social practices, are important elements of learning culture. These elements are also seen as important in the TCL environment, and signify the influence of these elements of learning culture on TCL.

Hodkinson et al (2007) agree that the interactions are an important dimension of learning culture and list seven key characteristics including;

- The positions, dispositions and actions of both students and tutors. The location and resources of the learning site.
- The course specification, syllabus, assessment and qualification specifications.

- The time tutors and students spend together, the inter-relationships and the other sites students are engaged with.
  - The effects of college management procedures, funding, inspection procedures and governing policy regulations.
  - The wider vocational and academic cultures of which any learning site is part.
  - The wider social and cultural values regarding class, gender and ethnicity issues. Employment opportunities, family life and the perceived status of the FE Sector.
- (Hodkinson et al, 2007)

So we now know what a learning culture comprises yet its boundaries are not clearly identifiable. Hodkinson et al (2007) in their Transforming Learning Cultures Research over 17 sites in Further Education Colleges (FE) found that a learning site can have a definable boundary, but the cultural factors influencing that site can be widespread. They use Bourdieu's metaphor of the 'field' and note that 'to understand the learning culture of any one site, it was necessary to understand the field of further education as a whole, and the relationship of that site to that field and to other fields of which it was part or with which it interacted' (pg. 423).

Another of Bourdieu's concepts, habitus, is 'integral to teachers' and students' roles and dispositions' (Ecclestone et al, 2010:59). A student's habitus includes their expectation of the teaching, how they engage with the learning and what the expected outcomes of the learning are. This is influenced by prior life experiences, student gender, nationality, ability, engagement and the past history that individual participants bring to a specific learning site (Postlethwaite and Maull, 2007). Similarly a tutor's habitus will be formed by their expectations and past influences.

Over time a learning culture will change, driven by the many forces with which it contends. What are important are the enabling or disabling attributes of each learning culture, and how these attributes influence those that come into contact with them. Hodkinson et al (2007) comment, that learning culture can promote or inhibit certain kinds of learning for individuals within that culture.

### ***The influential role of the tutor within a learning culture***

While learning culture cannot be precisely bound due to its all-encompassing nature, the role of tutor is deemed significant. Hodkinson et al (2007) note from their study that tutors 'were pivotal in mediating the various forces in the field and always had a significant influence on the learning and on the students' (pg. 402). In certain sites in Hodkinson et al's study, one tutor was often the driver of a particular initiative and showed commitment and determination far beyond their job description. Other tutors worked in pre-existing sites using practices already in place. Hodkinson et al (2007) stated that 'some tutors found themselves closely in tune with the many forces in the site culture, and influenced the detailed practices of that culture in ways that fitted with their personal sense of good practice' (pg. 402). This conjures up the image of tutors adapting to and changing within the parameters of the learning culture while remaining true to their own core beliefs and practices. Hodkinson et al (2007) noted that learning within the FE system was reliant on tutors and for 'tutors who felt empowered enough to make a difference, working way beyond formal contractual obligations was common, (pg. 402), but often, not recognised by the system. In contrast, some tutors were disempowered when they found themselves in circumstances where they were uncomfortable with the culture which prevented them doing what they believed to be right.

A good example of tutor adaptation is described by Davies and Ecclestone (2008) who discuss the Improving Formative Assessment Project in English further and adult education; they highlight the ways in which learning cultures can affect

different tutor practices. Synergy, expansiveness and restrictiveness were discussed in relation to learning culture and assessment practices in one research site, Moorview College, using two different courses AVCE Science and GCSE Applied Business. Davies and Ecclestone (2008) explained expansiveness as factors 'that enable students to maximise their engagement with the subject being studied, and develop positive communication in class as well as enhancing their own learning processes , rather than merely meeting targets' (pg.75). Synergy was described as how convergent or divergent students' and teachers' expectations were in relation to motivation, ability and the purpose of assessment and learning while restrictiveness was not seen as bad practice on the expansiveness continuum but how appropriate each practice was for the student.

Davies and Ecclestone (2008) describe the ethos of Moorview College as an important factor in the learning culture with expectations of academic and other achievements. For example, each classroom has a laminated notice reinforcing the ethos of the college 'Opportunity, Achievement, Endeavour, Excellence'. The learning culture in Science had a high level of synergy supported by both teachers and students' expectations of science as an interesting subject and a recognised subject area in vocational learning, with clear progression routes. The learning culture here reflected both explicitly and implicitly the belief that the teacher was crucial to the learning, another element that aligns to TCL. Students were motivated by the teacher's expertise, the group dynamic and the focus on collaborative learning. While there could have been a conflict between the science teachers' commitment to students' understanding and enjoying their subject and Moorview's high achievement ethos, the science teachers did not have a problem in creating a synergistic and expansive learning culture, adjusting it to fit with their own personal beliefs while adapting their practice to the organisation's learning culture.

In contrast to the science learning culture, Davies and Ecclestone (2008) discuss the Applied Business learning culture which demonstrated a low level of synergy in regard to teachers' expectations of learning but high synergy on grade expectations. The learning culture driven by the classroom tutor was grade focused, with little collaborative interaction and course work viewed by students as a means to a grade and not seen as learning. This instrumental approach is not completely negative because some students focus on achieving higher grades. The adaptation by the tutors in each course to the learning environment was different, but both practices were acceptable to the establishment, as the tutors' outcomes were in line with the learning culture. Learning culture can therefore be a tension both in terms of student learning, and the important role a teacher plays in the classroom environment, navigating within set parameters and untidy boundaries, while trying to maintain an innate sense of one's own professional values, in a learning site, within that learning culture. I return to the key implications of these ideas in the discussion chapter.

### **2.6.1 Communities of Practice**

Communities of practice live and grow within learning sites, often hampered or helped by the existing learning culture. Situating TCL for both the tutors and learners involved leads to a discussion on communities of practice. The idea that a classroom or a group of tutors can be seen as a 'community of practice' (Lave and Wenger, 1991; Wenger 1998) has implications for practice.

Boaler (2000) questions the influence of community and indicates that the experiences of students as 'a classroom community of learners' is driven by their learning environment and the norms and processes of that educational establishment. What she discovered in two separate schools was that in the school which taught to a more traditional method of 'textbook' learning the students could not transfer their practices from the school into the outside world, while children from the 'project' based school had no problem transferring those skills.

The conclusion was that the children in the traditional ‘textbook’ school saw their classroom and the rest of the world as two different communities of practice, in contrast to the ‘project’ school children who saw no divide. From a constructivist point of view it could be argued that the ‘textbook’ students did not get the opportunity or environment to enable them to develop their own understanding of the material, suggesting that education communities of practice (i.e. our classrooms) may have important implications both educationally and in terms of employability for students (York, 2005).

Tutors in the traditional ‘education community of practice’ would be seen as the lecturing cohort or the academic staff within the subject discipline, academic department, school or faculty. These communities of practice help develop and support specific learning environments. Developing a TCL ethos within an academic school would require a community of practice to support it, management backing to resource it, and practitioners to implement it. Any TCL environment challenges existing learning culture, from inception to execution, and its eventual absorption into an organisation’s learning culture. In response to this idea, learning culture could be perceived as the umbrella under which communities of practice exist, suggesting that learning cultures support communities of practice. However, it could be argued that learning culture is both defined and determined by its practitioners who function as communities of practice, and indeed it is these communities of practice who create and expand their learning cultures by their existence.

## **2.7 Implications for this Study**

The literature highlights the need for students to have social and cognitive skills for interaction. While both are acknowledged, the primary focus of this study is the social skills required, such as task management, conflict management, ability to manage competition and a willingness to accept differing viewpoints. These social skills are the focus of the interactions which are critical in the collaborative

learning environment. If a topic is not sufficiently complex it may be a barrier to the collaborative process not allowing for socially constructed learning to occur within the group, a key factor which may influence collaborative practice in the classroom alluding to the importance of interaction in the collaborative process. In exploring the challenges associated with TCL, the primary research question for this study, interaction is identified in the literature as one of the four elements important in this learning environment. Interaction which is seen as essential to the collaborative process is both a tension and a barrier, and management of these interactions appears crucial to student engagement and subsequent depth of learning. Student interaction perhaps, is core to the success of the TCL environment, and a need for a deeper understanding of this engagement in process led to this study. Focusing on the interactions of the group under study, recognising the multiple modes of communication both verbal and non-verbal, (Barron, 2003; Jaques, 2000; Norris, 2004) this study aims to illuminate key factors that influence interaction in this environment.

As I argued earlier Cohen (1994) points out that future research should focus on task and interaction, thereby giving practitioners more detailed knowledge on what makes groups productive. In this literature review, I have identified not only task and interaction but also the role of student and tutor in the group setting as the four important elements. The role of the tutor is seen as critical to the process and the tutor's approach to the collaborative classroom can be a significant barrier, in that it can either enable or disable the TCL process, again suggesting the importance of tutor interaction in encouraging and engaging students to contribute. While the contribution to content by the tutor appears minimal in the TCL environment proposed, it is the tutor's initial ability to build and develop a relationship with the group that appears to enable the creation of this learning environment. Dillenbourg (1999) reflects that 'researchers should no longer treat collaboration as a black box, but zoom in the collaborative interactions in order to gain better understanding of the underlying mechanisms' (pg. 17). Volet et al (2009) concur, arguing that 'for researchers to identify instances of collaborative



learning it is imperative to go beyond a blanket categorisation of all group work interactions as collaborative and co-constructive and to locate specific interactional episodes that fulfil more conceptually grounded criteria' (pg. 130). Using observed interactions in their entirety should enable me to achieve a holistic view of them, allowing me to identify specific episodes as discussed by Volet (2009). By focusing on interactions through the elements identified in the literature, task, tutor and student, I hope to identify specific factors that influence TCL practices in the learning culture and communities of practice in a particular Irish H.E. undergraduate classroom.

The literature in terms of group composition and group research (Webb, 1989) notes that most of the research linking peer interaction and learning focused on groups of students who had been working together for relatively short periods of time before they were observed, while Barron (2003) comments on the need for research on real students in a live group classroom setting, rather than research-based experimental classrooms, adding that it would add enhance the authenticity of research results in a situated case study domain. In order to gain this insight I felt that the TCL interactions should be observed in action, in 'a real classroom', over a 12 week period, keeping the setting as natural as possible for the participants, attempting to gain a richer understanding of the challenges associated with TCL in an Irish HE classroom. Therefore an ethnographic insider case study with observation of the interactions as a primary method of data collection is discussed in the methodology chapter.

In discussing this new TCL environment, I respond to what I see as a disjuncture in the literature which does not explicitly challenge the powerful interplay between learning culture and communities of practice. Implementing and enacting this new TCL learning environment may be overshadowed by both the learning culture of the educational establishment and the communities of practice within it. Here I see learning culture as an overarching presence within which communities

of practice exist, while communities of practice are noted for their importance in supporting and developing communities of practitioners who function within this learning culture. These communities of practice encompass both the students and the tutors as partners in enacting new learning environments. Consequently the actions, positions and dispositions of student, classroom and tutor are also acknowledged as important characteristics of both learning culture and TCL. Recognising this partnership and interplay is an important factor in understanding and analysing the TCL environment.

## **Chapter 3 Methodology**

### **3.0 Introduction**

In this study I am an interpretive observer of social constructivism in action in an undergraduate classroom. By this I mean, that I observe students co-construct meaning through collaborative interaction with each other. This approach reflects my philosophical perspective and how I view the social world and the ways in which that reality can be investigated; for example Sikes (2004:18) refers to it as 'where the researcher is coming from'. The purpose of this chapter is to examine the philosophical position that has influenced the design methodology of this study, highlighting the tensions associated with the chosen methods and their possible influences in this specific research domain.

The chapter is structured into three main sections: research design, data collection methods and data analysis techniques. Section one describes the research site, reiterates the research questions and explores my own philosophical positioning. It outlines the chosen research design concluding with insider and ethical issues associated with the research setting. The second section focuses on data collection methods, highlighting the reasoning and use of these methods. Participant observation, videoing and field notes are examined in the research context. The last section of the chapter relates to data analysis, focusing on a qualitative approach to analysis and concludes by acknowledging the limitations of the research. Reliability, validity and rigour are examined from a qualitative perspective.

### **3.1 Research Context**

The research context discussed in detail in the introduction presents the cohort of twelve students who were the research participants. The class-based peer interaction sessions also discussed (Parr & Townsend, 2002) were the field setting, in which I as both class facilitator and researcher was the participant

observer (Jorgensen, 1990) giving me complete access to the sample (Cohen, Manion and Morrison, 2007). One of the fundamental concerns associated with this research question was my position as an insider researcher and the ethical implications of researching my own students. These issues are discussed in detail later in the chapter.

### **3.2 Research Questions**

According to Bryman (2004) research questions drive and focus the research process. This research is exploratory in nature, focusing on the challenges associated with the TCL environment (Parr & Townsend, 2002) in an Irish H.E. classroom. As outlined in the introduction the overarching research focus is:

*An exploration of True Collaborative Learning and its challenges in an Irish Higher Education Classroom*

The research questions for this study are:

1. What is true collaborative learning?
2. What factors influence the CL practices in an undergraduate classroom?
3. What are students' perceptions of the CL environment?
4. What are the implications for new theory and improving practice?

### **3.3 Research Positionality**

There are two traditional approaches to research, the objective approach and the subjective approach. The position one holds as a researcher is defined by research assumptions relating to epistemology, ontology, methodology and methods (Denzin and Lincoln, 2008). A researcher's ontological assumptions are how she sees the social world. If it is viewed as independent and objectively real (the objective paradigm) or socially constructed (the subjective paradigm), these assumptions will influence the research methods chosen. Epistemology according to Crotty (2012:8) is a way of understanding 'how we know what we know'.

Sikes (2004:21) notes that ‘If the assumption is that knowledge is real, objective...researchers can observe measure and quantify it. However if it is assumed to be experiential, personal and subjective, they will have to ask questions of the people involved’.

The methodological approach for this study sits very firmly on the subjectivist side of the continuum by taking a social constructivist approach. Cresswell (2003:8) acknowledges that the interpretivist/constructivist researcher relies on the ‘participants’ view of the situation being studied’ while also recognising the impact of their own background and experiences. The students’ views are accessed in this study by the use of a focus group in the data collection process discussed later in this chapter. Knowledge is constructed between people participating in communities of practice (Lave and Wenger, 1991; Wenger, 1998) as discussed in the literature. This supports an interpretivist approach which allows an exploration of the specific elements and relationships that influence interaction in the TCL environment in this study. These interactions between the students are therefore a crucial element as they are socially constructed. The study is not theory-driven but inductive, with meaning emerging throughout the process.

A constructivist does not set out to prove something, but rather to explore what emerges. Qualitative data collection methods are preferred but mixed method approaches can be used to expand qualitative data (Mckenzie and Knipe, 2006). This perspective is reflected in the methodology and methods discussed later. It could be argued that it is not just our philosophical perspective that determines how research is investigated, but also the research question itself (O’Leary, 2004). Situated in a particular context, it supports an interpretive epistemology, acknowledging that the interpretation of meaning in a social setting is both subjective and socially constructed.

### **3.4 Research Design**

In deciding an appropriate methodology for the research questions, design frames most common in small scale research, including action research, case study, comparative research, evaluation and experiment (Thomas, 2011), were all considered. The question in this research study does not fit the comparative, evaluative or experimental frame but does suit the action research or case study design frame. Researcher immersion in the research environment and the exploratory nature of the research question lends itself to both these methods (Gomm et al, 2000; Thomas, 2011). In deciding whether to follow the case study or action research methodology, I examined both research strategies.

#### **3.4.1 Action Research**

Action Research is different to other interpretative approaches in that it aims to make changes through deliberate intervention during the research process. Costley et al (2010) acknowledge that action research has become widely used ‘as a methodology for practitioner and collaborative research’ (pg. 88) and describe it as a cycle of four stages: ‘planning acting or creating change, observing and gathering data, reflecting, and decision making’ (pg. 88). The central idea is to implement change and study the results in iterative cycles. This approach, according to Gummesson (1991), contributes both to improvements to practice and contribution to theory. However the focus of my research is to gain a deeper understanding of student interaction in a natural setting, without intervening in the process, thereby excluding the action research design frame and, by a process of elimination, lending itself to the case study design frame.

#### **3.4.2 Case Study**

In determining whether this research setting can be called a ‘case study’ it is necessary to define and examine the boundaries which define a case study. While the case study is an accepted social science research practice, there is little

consensus on whether it is a method, a methodology or even a research paradigm (Mertens, 2010). Stake (2005:443) refers to it 'not as a methodological choice but a choice of what is to be studied' while it is 'a distinct research paradigm' according to Hammersley and Gomm (2000:5). There is consensus in the literature identifying a case study as a unique unit of study, focusing on one thing, one subject or one particular event from which it is difficult to generalise (Cohen & Manion, 1994; Cohen, Manion et al, 2007; Thomas, 2011; Wellington, 2000).

A particular subject or event is the focus of the case study and in determining its suitability as a case study should have a 'how' or 'why' question (Thomas, 2011; Yin, 2009) emerging from this 'contemporary set of events over which the investigator has little or no control' (Yin 2002:9). The case is a study of real people in real situations (Cohen et al, 2007) and unlike experiments where researchers create the case to be studied, 'case study researchers construct cases out of naturally occurring social situations' (Hammersley and Gomm, 2000:3). This research setting is a contemporary classroom where I facilitate a student driven discussion. What is discussed is driven by students' experiences in their placement over which I as researcher have no control. My role is to facilitate a collaborative, socially constructed learning discussion.

Does the research question fit a case study criterion? According to Stake (2005) there are three classifications of case study case; (1) the intrinsic case, (2) the instrumental case and (3) the collective case study. This research aligns with the instrumental case, which allows insight into a particular issue where the case is secondary to understanding the research issue. This case is using the college and community module to explore the influence, if any, of class based peer interaction on collaborative learning in a H.E. classroom. Thomas (2011) argues that a case study should have a subject and an analytical frame or object. It is a single case study of one subject (Collaborative Learning), focusing on one unique situation (The College and Community Module) exploring one aspect of the situation

(Class Based Peer Interaction) from a number of different perspectives. This case study is of real people in a real situation and provides a conduit to answer a specific research question; therefore it does fulfil the criteria of case study methodology.

While the case study is an accepted approach to small scale research, the benefits and traditional prejudices associated with this approach must be acknowledged. The strengths of the case study lie in their attention to detail, the ability to drill down (O’Leary, 2010; Thomas, 2011), to focus on just one setting (Wellington, 2000), and that that setting has a strong focus on reality, as case studies normally focus on naturally occurring research contexts and can probe into research questions not suitable for numerical analysis (Cohen et al, 2007). It allows for a researcher to seek underlying reasons, question people’s feelings and experiences during the research which can be key determinants to understanding the process under investigation (Gillham, 2000; Yin, 2009). These strengths combined allow a researcher and the subsequent reader a real insight into the uniqueness of the research setting and a greater understanding of that social setting and the subsequent research results. Thomas (2011) reflects that in a case study one should be able to; ‘Smell human breath and hear the sound of voices’ (Thomas: 2011: 7).

Conversely the case study has its limitations: it is perceived as analytical rather than generalizable, biased despite a researcher’s attempts to be reflective and subsequently subjective, and personal rather than objective. These limitations question a researcher’s interpretation of data (Wellington, 2000) and raise concerns in relation to generalizability, rigour and validity (Thomas, 2011; Yin, 2009) discussed in detail in the data analysis section below.



### **3.4.3 Insider Case Study**

This insider case study has a strong ethnographic perspective. According to Tedlock (2005) ethnographers were expected to live in their research realm for ‘an extended period of time (2 years ideally), actively participate in the daily life of its members, and carefully observe their joys and sufferings as a way of obtaining material for social scientific study’ (pg. 467). Alvesson (2003:167) comments on the rarity of academics who study the ‘lived realities’ of their own organisation...such as ...interactions with students, recognising the difficulties of studying something ‘one is heavily involved in’ yet also recognising that being an insider ‘may be a resource as much as a liability’ (pg. 167). In my study the research period is one semester, so this is not a longitudinal study. Many of the ethnographic issues of access, closeness and trust experienced by ethnographic researchers are also key concerns in insider research discussed below.

The literature identifies an insider researcher as a member of the organisation under study and someone who has a ‘lived familiarity with the group being researched’ (Griffith, 1998:261). In my normal role as both programme leader and class tutor I will facilitate the TCL sessions. There are opposing views in the literature on participant observation. Hockey (1993) believes that as an insider in the organisation, a researcher will blend in and is less likely to alter research results, while Mercer (2007) outlines the importance of rapport with participants and that the credibility of an insider researcher may result in greater honesty from the participants. In contrast, others suggest that insiders may have a greater impact on the research than an outsider (Griffith, 1998; Hockey, 1993; Mercer, 2007) with a researcher being told what participants think the researcher wants to hear, or simply being afraid to tell the researcher the truth because of their insiderness. Managing role duality as an insider researcher is important in the research process and the need to be aware of this on-going dual role challenge, means putting balancing mechanisms in place to avoid shaping research outcomes (Coughlan and Brannick, 2005). With my longitudinal perspective of this TCL environment,

I am aware of my potential to influence the research and will have to manage the challenges of bias in context.

The benefits of insider research are varied and span from a researcher having access to the participants; a working tacit knowledge of the research environment, and an understanding of the 'language' of the research environment (Hockey, 1993; Mercer, 2007). In relation to this research study, I benefit from access to the student participants, scheduled timetabled facilitator sessions, a good working relationship with the students and a familiarity with the host organisations in which the students are placed. The challenges for me as a researcher are making the familiar unfamiliar so the mundane which could be important is not overlooked (DeWalt and DeWalt, 2002). Once again I am aware that I have lived this environment for the last nine years and consequently will have to stay focused and vigilant, constantly questioning the familiar (O'Leary, 2010; Mercer, 2007).

The topic under investigation poses a direct ethical dilemma for me as a researcher. How overt or covert should I be in relation to the research question, and the implications of both approaches in terms of altering or changing student behaviour? I will explain to the students that the classroom CL sessions will be recorded and studied to help gain insights into group learning. This overt approach creates its own difficulties and Sikes (2004:29) argues that in terms of research relationships, it is ethical that the participants 'are given as much information as possible and as they require'. By taking the honest overt approach, a researcher risks the students changing their behaviour, but by being dishonest and covert in approach, may yield more natural interaction from the participants (Sikes, 2004). In order to be fair to both, the participants and the research the students are told that the research is on collaborative learning but the explicit research questions are not discussed. This decision is supported by Sikes (2004) and Silverman (2011:200) who discuss the possibilities of contaminating a research study 'by informing subjects too specifically about the research questions

to be studied', adding to the importance of keeping the research specifics private, as is in this study.

The power dynamic in the research must be addressed. The social power I wield is significant in this study as both programme leader and class tutor. Social power is described as the power one holds in a specific situation or environment, Sikes (2004:30) refers to it as 'the balance of power between researcher and researched'. There is a compulsory 80% attendance requirement on this module; consequently the power dynamic appears to favour me. Students must attend this module to pass. My role in this study is to facilitate the TCL class-based interaction. Acknowledging the power associated with this role and having considered its impact in this TCL environment, I felt compelled to make a conscious decision to speak only when necessary, to probe or clarify peer conversations but not to control or lead the discussion, allowing the power balance to lie with the students who drive the TCL in the facilitation sessions (Costley et al, 2010).

#### **3.4.4 Research Sample**

Qualitative research focuses on small samples and single cases (Patton, 2002) and while this may be perceived as a weakness in terms of generalisability, it is this focus which is seen as strength in qualitative sampling, allowing for rich in-depth information to be gathered. The student group participating in this research are a small group of twelve students on a third year flexible semester placement. They are all placed in educational establishments as trainee teachers. This sample group are a non-random (Schofield, 1996), purposive sample also called judgement sampling (Tongo, 2007:147). Teddlie and Yu (2007:77) define purposive sampling as 'selecting units based on specific purposes associated with answering a research study's questions'. Patton (2002) asserts that purposeful sampling focuses on selecting information rich cases whose study will illuminate the questions' (pg. 230) and though small, this sampling focus is best placed to provide the richest and most relevant information (Ritchie & Lewis, 2003).

The uniqueness of a single case study and the particular phenomena under study in that case, drives many post positivists, constructionists and qualitative researchers to employ purposive and non-random sampling practices (Denzin and Lincoln, 2008). In order to align the sample to the research questions, I focused on this group in their TCL classroom, an environment in which the true collaborative process is most likely to occur. This was intended to aid me in developing a deeper understanding of the TCL process by observing student interaction in this environment using video recording, an issue discussed in detail in Section 3.6.3.

### **3.5 Insider Research Ethics**

The ethical concerns in this study relate directly to a researcher's role as an insider researcher. An insider researcher must be vigilant to behave in an ethical manner at all times. All stages of the research project must be considered from an ethical viewpoint from choosing the research population, accessing participants, collecting and storing the data, confidentiality of privileged information and honest analysis and presentation of the findings (Mercer, 2007; Sikes, 2004). Key ethical insider issues relating to this study are explored including social power, participant access, familiarity with the research participants and trust (Herr and Anderson, 2005).

The power dynamic, in terms of participation means that students who do not want to participate should not experience any adverse consequences (Costly et al, 2010). Those who choose to participate should do so with 'informed consent' an important element of the research relationship (DeWalt and DeWalt, 2002). Anticipating these issues, I decided if necessary, to run two collaborative sessions, one for students who wish to take part in the research and the other for those who do not.

Two ethical challenges arise from an insider role perspective in this research, my familiarity with the participants and my decision to complete the research in an overt manner. When collecting the data as an insider, these challenges present their own ethical dimensions. In this research context I know from previous experience of facilitating the module, that due to my insider role and my familiarity with the participants, I will have access to data outside of the formal data collection schedule. Mercer (2007) discusses the dilemma of incidental data and highlights the ethical challenges faced by a researcher in this regard. As an insider in the organisation, particularly a co-ordinator on the module, the students regularly speak to me informally outside of scheduled class time. To use any of the incidental but often insightful privileged information in the research without permission would be a betrayal of trust and an abuse of access. In a study such as this, a researcher needs to maintain a reflective diary, ongoing field notes, and record interesting informal 'snippets' noting the contributor, with a view to asking permission if used eventually in the data analyses (DeWalt and DeWalt, 2002). How the data is obtained is a key part of the research design and data collection methods chosen.

### **3.6 Data Collection Methods**

Having identified the case study as an appropriate approach for the research question, fitting data collection methods are considered. The data collection methods in this study are participant observation, videoing of the class sessions, an ongoing reflective diary, field notes and the students' focus group, five separate accounts of this learning environment.

#### **3.6.1. Visual Methods**

Observation, participant observation and videoing are visual data collection methods used within this case study methodology. This focus on the visual, according to Pink (2012), has become 'more acceptable, more viable and more central to qualitative research practice' (pg. 3). It is interpretivist in approach, 'not

just based on the observable recorded realities but also on the sensory nature of human experience' (Pink, 2007:22) and how that is interpreted. The influences and practices associated with visual methods are discussed in detail in the following sections on observation, participant observation and video recording.

### **3.6.2. Observation**

'Whatever the problem or the approach, at the heart of every case study lies a method of observation'

(Cohen and Manion, 1994:107)

The case study design is synonymous with observation as a data collection method and for 'the case study researcher this technique is primary' (Gillham, 2000:47). It emerges as a direct result of the research field and the research design. Observation as a data collection method uses a researcher's ability to interweave gathered data through the senses by looking at what people do, listening to what they say and questioning if necessary for clarification, (Gillham, 2008: Lofland, 1971; O'Leary, 2010). As a researcher it means 'opening your eyes, ears and mind' (O Leary 2010:216) during the process of observation. It demands of this ethnographic insider, the challenge of really opening her eyes and mind to scrutinise the familiar in order to gain a deeper understanding of the TCL environment.

Observation falls into two main categories more structured or detached observation and less structured and participant involved observation (Foster, 1996). The more structured detached approach is in line with the positivist scientific tradition using predetermined criteria and aiming for accurate and objective measurement by quantitative analysis. While the less structured

observation is a more subjective ethnographic approach, with an emphasis on thick description and primarily interpretative analysis (Gillham, 2000; O'Leary, 2010; Foster, 1996). Pink (2007) describes this visual ethnography 'as a process of creating and representing knowledge' (pg. 22) and argues that it does not aim to be objective but, instead, represents an ethnographer's experience's in a situated context.

In this research study I am an ethnographic insider researcher, working with my own students in my normal role, i.e. in a facilitative capacity, in a classroom setting and will refer to myself from here as a participant observer.

### **3.6.3 Participant Observation**

TCL is an advanced form of peer learning and in order to explore these interactions, Cotton et al (2010) believe it is best observed in its natural setting. Kawulich (2005) defines 'Participant observation as the process enabling researchers to learn about the activities of the people under study in a natural setting through observing and participating in those activities' (pg. 2), while Lofland (1971) sees it as the 'circumstances of being in or around an ongoing social setting for the purpose of making a qualitative analysis of that setting' (pg. 93). Combining these definitions, an insider participant observer hopes to gain a greater knowledge and a deeper understanding than would be possible, if studying the phenomena from the outside. Insiders in the participant observation role focus on specific features including: human interaction, interpretation of human understanding and open ended inquiry. Population size is an important factor and according to Jorgenson (1990) best suited to a small sample as in this study.

There are two types of participation observation, the participant observer who actively participates in the process, as in this study (DeWalt and DeWalt, 2002; Wellington, 2000) and the non-participant observer who stands aloof from the

group (Cohen and Manion, 1994). The level of participation and the researcher's membership of the group under study are two important factors that determine where a researcher fits on Adlers and Adlers' (1987) and Spradley's (1980) continuum. Spradley (1980) places researcher participation on a continuum from researcher non-participation to complete participation. On Spradley's scale I am a moderate participant, meaning that I am identifiable as a researcher, am part of the research action, interact with the participants, but I am not totally immersed in the process. In relation to this study I facilitate the TCL process.

Adler and Adler (1987) categorise membership roles from no membership role for a researcher, through peripheral to full membership. I am not on site with the participants in their daily lives, as with true ethnographic research, so cannot be considered to have full membership. In this study I appear to have peripheral membership. This means, I am seen as a member of the group, part of the scene (in the facilitator/tutor role) and recognised as an insider by the group. This allows me some insight through the TCL interactions to gain a deeper understanding of how the participants make sense of their daily lives (DeWalt & DeWalt, 2002; Jorgenson, 1990).

The benefits of observation are that it is a direct way of obtaining data, 'it is what they actually do' (Gillham, 2000:47) or say and can be used 'to obtain qualitative description of the behaviours of a group' (Foster, 1996:58) and support other data in a multi-method research approach. The opportunity associated with insider research is, that a researcher as an insider who is present during the research, may be able to see, hear and experience in more detail what is happening, something someone external to the case may not see, that may create an opportunity for a researcher to produce a more accurate account of the phenomena under study (Yin, 2009). The observer in using observation may also be able to see patterns over a period of time that would not be obvious to participants.



While recognised authors in the field (Cohen, Manion and Morrison, 2007; Dewalt and Dewalt, 2002; Foster, 1996), among others, speak frankly about observation, all agree that it is a difficult discipline that requires a lot of time, effort and practice. Gillham (2000) states that ‘being a good observer...is not a normal natural activity’ (pg. 49). Initially the difficulty for a researcher according to Jorgensen (1990), is deciding what is important. In the context of this research question where all sessions are recorded by audio and video, my memory would not be called into question but the importance of notes ‘regarding personal feelings, hunches, guesses and speculations’ (Jorgensen, 1990: 96) would allow me to debrief and take notes on what seems important at the time. The one concrete task that the researcher performs according to Lofland (1971) during and after observation is taking field notes and if these are not done the researcher might as well not be in the research setting at all. Balancing the roles of researcher and participant observer are a real challenge in that the ‘participant role may simply require too much attention relative to the observer role’ (Yin, 2009:113), one of the reasons I chose to video the classroom sessions discussed further in the next section.

The challenges in participant observation span two distinct categories, the challenge of managing working with the participants and the challenge of managing the researcher’s participant subjectivity (Cohen and Manion, 1994; Yin, 2009). Managing the participants is a combination of access, building relationships and trust. By developing relationships with the participants I accessed behaviour that had ‘been influenced as little as possible by the researcher’s presence or process’ (Foster, 1996:70; Vinten, 1994). Observation is both ‘fallible and highly selective’ (Gillam, 2000:47) and there is always the danger that the researcher’s selectivity may misinterpret the data (O’ Leary, 2010). Conversely participant observation carried out in a rigorous manner can result in rich in-depth qualitative data both verbal and non-verbal (O Leary, 2010).

I found the thought and responsibility of observation as a primary technique quite daunting, but was reassured by Gillham's (2000) thoughts on the topic:

‘a conscious attempt at rigour can usually lead to a reasonable judgement: we can expect no more’

(Gillham, 2000:47).

In this study, video recording will be used primarily as a visual record or visual diary of the sessions, allowing me to perform my dual role as both participant observer and class facilitator.

#### **3.6.4 Video and Audio Recording**

‘Audio and visual recording are essential in some studies where information is needed on the details of interaction’

(Foster, 1996:87).

Recording observations and taking notes are central to participant observation. Relying on memory is questionable, particularly over a period of weeks, in this case a semester, so detailed notes should be made either during or immediately after observation, a practise Taylor (2014) used in her research. Jorgensen (1990) reiterates how important it is that all data be recorded whether it is through a researcher's written log, audio tapes or audio video equipment. Taylor (2014) states her appreciation of the advances in technology that allows researchers record and study more closely human communication, enabling researchers to ‘capture not just the spoken elements of natural conversation, but the postural and gestural components of that conversation thus facilitating...a thicker description of the communication taking place’ (Taylor, 2006:80). Pink (2012) also reflects

positively on the developments in digital media but cautions researchers to consider their positioning 'within these complex social technological environmental contexts' (pg. 12). During this research, all the class-based peer interactions (with the students' permission) are videoed, giving me an audio visual permanent record of the events, that can be played, analysed and replayed to temper subjectivity (Dey,1993). These recordings are also available as an accurate and detailed verbal, non-verbal and visual account of the TCL interactions (Cotton et al, 2010) to support the research findings. Pink (2007) cautions that by 'recording a process or activity, the video material is a 'representation' rather than a visual fact' (pg. 103) and that the mere presence of a camera and a researcher 'may have affected the reality recorded' (pg. 110). She notes that, traditionally, the realist approach would view video as an 'objective' reality, in contrast to current ethnographic trends, that view video as 'representation shaped by specific standpoints of its producers and viewers' (Pink, 2007:116). This recognises the importance of participants' age, gender, cultural and contextual factors and the influence of the researcher's own prior experiences. While the benefits of videoing are acknowledged and appreciated, the problems and underlying issues that may arise must be considered.

Visual research that is recorded has a level of constructedness associated with it. The issue of participant reactivity particularly to the recording equipment must be acknowledged and Pink (2007) recognizes that while it is inappropriate to record people without their knowledge, once they are aware of the camera, 'people in a video are always people in a video' so 'research footage is inevitably constructed'(pg. 98). Furthermore, there is a complexity in the relationship between researcher and informant and introducing a camera into that relationship adds another level to this complexity. Pink (2007) notes that 'ethnographic video makers need to be aware of how the camera and video footage become an element of the play between themselves and informants, and how these are interwoven into discourse and practices in the research context' (pg.99). Therefore, if not

introduced in a suitable manner, the camera may alter participant behaviour (Cotton et al, 2010: Foster, 1996).

In this context it is important to understand that in my normal role as lecturer, the video camera is part of my normal practice and that all these students had been recorded by me previously in other modules, so my use of video would not be an unusual occurrence to these participants. To minimise the intrusive presence of the camera, I made a decision to have it set up and running in the classroom, prior to the arrival of the participants each week. In conjunction, I explained to the participants that the purpose of the camera was to help me remember what happened during the sessions and, as a video diary may, enable me to subsequently portray an authentic record of the interactions. However these interactions or knowledge, according to Pink (2007), are 'produced in conversation and negotiation between informants and researcher, rather than existing as an objective reality that may be recorded and taken home' (pg. 98). So as researcher I needed to be aware that these recordings did not exist as observable facts but may have multiple layers of situated context that need to be considered in analysis. The benefit in the context of this research, as previously discussed, was my positionality as an insider participant observer, so there was, from my perspective as researcher, some shared understandings of their experiences in context.

I have considered the challenge and meaning of informed consent when recording (Rapley, 2007). The participants were given a consent form to read and sign (See Appendix 1, 2 and 3) which details what the research is about and assured them of anonymity and confidentiality in relation to the research study. I had the expertise to record and download the classroom sessions, which means that no outsider presence was required to monitor the camera, keeping the environment relatively unchanged for the participants, helping to minimise potential behaviour impacts discussed above (Cotton et al, 2010). I also explained to the participants that the

recordings would be viewed by no one except me, and that these recordings would be kept in a safe place and destroyed when the research was completed (Rapley, 2007).

Reliability is an issue in observation, however the recorded visual diary could be interpreted and reinterpreted through multiple viewings and this may increase the reliability of analysis (Marshall and Drummond, 2006). The benefit of being able to review the interactions allowed me ‘to see elusive aspects, especially of social interactions’ (Gillham, 2008; 78).

Combining insider participant observation and videoing gave this research a visual focus. Understanding the issues and benefits associated with this visual focus, discussed above, allowed me to appreciate what modern digital technology has contributed to research, most notably the possibility of multiple viewings. However it also clarified the importance of the visual ethnographic approach that relies on the skills of the researcher - not the technology - to question, probe and interpret in a reflexive way the dynamics, relationships, and cultural contexts of the research site.

### **3.6.5 Focus Groups**

A focus group is used as a supporting data collection method to elicit student comments on this learning environment. The group interaction in the focus group (Krugar and Casey 2000) fits with the primary method of participant observation, continuing the practice of group interaction and active role in the process. The goal of the focus group is to ‘delve into attitudes and feelings about a particular topic to understand the why ... and to interact with each other so that the quality of the output is enhanced’ (Greenbaum, 1999 pg. 3). The purpose of the focus group is to gain a deeper understanding of the participants’ perceptions and insights generated from their participation in the TCL classroom. The outcome of

using this method is that ‘it contributes something unique to the researcher’s understanding of the phenomenon under study’ (Morgan, 1997:3). There is no one consensus on the size of focus groups in the literature (Morgan, 1997: Ritchie & Lewis, 2003), with groups varying from six to ten participants. In terms of research rigour and researcher subjectivity, the sessions would be recorded for ease of analysis and as a record of the research.

A moderator assists and facilitates the flow of conversation with minimal intervention (Ritchie and Lewis, 2003), encouraging open interaction and steering the group conversation while remaining non-directive in the process (Ritchie and Lewis, 2003). In this study my aim as moderator was to be non-directive but to ensure that all members of the group got a chance to contribute. The focus group was an hour in duration, a small group of ten, to allow for greater participation, as advised by Greenbaum (1999). Group dynamics (Ritchie and Lewis, 2003) were managed by the moderator and I hoped were not an issue as these students are a sub-set of the class under study. Therefore comfort levels may be higher among participants of the focus group due to the on-going peer interaction experienced by them in the TCL environment over the semester.

In this research, the focus group was used in conjunction with participant observation. In questioning the participants, I achieved ‘a concentrated insight into the participants thinking’ (Morgan, 1997: 23) on the TCL environment and experience. The question for the group focuses on the TCL environment they experienced and their perceptions of it, a conversation initiated by the researcher, in contrast to the unstructured class-based peer interactions. As focus group moderator, a researcher may probe, explore, and question dilemmas emerging from the participants’ experiences. What is important in the research design is that a comparative element of data collection is introduced to balance and validate the research outcomes. The video recordings, the field notes and my reflective diary were all my interpretations and experiences of the learning environment, while the

focus group allowed me some insight into the students' perceptions of this learning environment.

### **3.6.6 Comparability**

As a stand-alone researcher using only one purposive group for the observation, there was little comparative element in the research process. In order to balance the process, both from a research and reflexive perspective some contrasting focus are required. As discussed above a focus group exploring the perceptions of the participants who experienced TCL in practice was one part of the process. Secondly during analyses a portion of a transcript with a list of the associated themes was shown to a colleague to examine whether these themes were evident. This process gave me a chance to query what I thought I saw, and by using a colleague, provided some reassurance on the validity of their existence. The issues associated with reliability and validity are discussed in detail below.

## **3.7 Data Analysis and Interpretation**

### **3.7.1 A Qualitative Dimension**

A researcher's positionality influences the analysis of data. In an interpretivist approach, the researcher's ontological belief is that reality is not absolute but socially constructed with many realities existing in different contexts (Mertons, 2010). These approaches see learning as a social process which is embedded in the activity context, in this research the TCL sessions. The literature (Mackenzie and Knipe, 2006; Ritchie and Lewis, 2003) reveals that constructivist researchers prefer a qualitative approach to data collection, as is evident by the observational approach in this design frame.

According to Cotton et al (2010) analysing observational data is difficult. Attempting to analyse TCL interactions increases the data analysis challenges

(Strijbos, 2007). Underpinning the divide between qualitative and quantitative research is not data collection, but rather the divergence in approach to data analysis. This research focus and consequent design was to observe collaborative interaction, and in order to describe and appreciate the richness of these interactions a thick descriptive or qualitative approach was needed (Parr and Townsend, 2002; Staarman et al, 2005). Creating an interesting and compelling case with ‘thick description’ (Gertz, 1973) enabling the reader to see, smell and hear the voices of those involved (Thomas, 2011) is the challenge of qualitative analysis and qualitative interpretation.

As a participant observer I took a multi-method approach to data analysis and interpretation. As stated previously the sessions would be recorded as a permanent record of the process, and would be transcribed and analysed as an independent text. The recordings would also be viewed for non-verbal interactions. My field notes taken weekly and written up immediately after class would track my initial reactions to the process. A weekly reflective diary gave me some distance to assemble, interpret and reflect on what is happening during the process. By layering and combining all these elements, I wanted through analysis and multiple approaches to interpretation to write up the findings in a rich, engaging and compelling manner, to weave a contextualized three dimensional picture of this situated collaborative learning process.

### **3.7.2 Unstructured Data**

The observational data to be analysed presents itself in an unstructured form. The researcher has no physical control of what is said and how the participants respond to each other (Boulton and Hammersley, 1996). Analysing unstructured data presents its own challenges. What is of importance is that whatever technique the researcher decides to use, that the analysis will be of high quality, and representative of the research context and the associated research questions. High quality analysis is dependent on multiple factors, researcher familiarisation



with all the data, that the most important issues under study are addressed and that the researcher uses their own expert experience or knowledge in the analysis (Yin, 2009).

### 3.7.3 Transcription

Transcription according to Flewitt et al (2009) is dependent on ‘the research context and what the researcher is trying to find out but transcriptions must be recognized as reduced versions of observed reality’ (pg.45). The purpose of the research was to observe TCL interactions in a H.E. classroom and how the participants make meaning through naturally occurring interactions. In transcribing these, what was said was important. However, when observing interactions, other modes of communication are equally important. Flewitt et al (2009) and Norris (2004) acknowledge the difficulties in understanding and describing the multiple modes of communication occurring within an interaction including the spoken word, posture, gesture, head movements, gaze and proxemics.

Transcription in this study focused primarily on the words, who said what, in what order and how the topics discussed evolved. In line with the traditional approach, the purpose of the transcriptions was to focus on the oral communication, what Flewitt et al (2009) refer to as ‘spoken verbal language’ (pg. 46) including obvious information such as timings, pauses, laughter and other sounds in the environment. In contrast to the traditional approach, Flewitt et al (2009) discuss the growing importance of context in line with Norris’s (2004) multimodal approach that includes talk in interaction but also deliberates on the difficulties associated with proxemics, posture, gesture and head movements imparting the importance of interconnecting both verbal and non-verbal modes to make meaning in context. In the light of these observations, the decision to record the sessions allowed me, when transcribing, to focus on the words and ideas that emerged and I used the video diaries to observe iteratively the other communication modes.

### **3.7.4 Data Analysis**

According to Dey (1993) analysis is an iterative process. The literature in the field denotes a common series of analytical stages from managing the data to interpretation. Stages include describing the case in context, coding and grouping data into themes or patterns, interpreting the data and presenting an honest in-depth account of the research study (Cresswell, 2007; Miles and Huberman, 1994). As discussed so far, I took an interpretivist approach to data analysis and in doing so focus on thematic analysis of the collaborative learning phenomena under study.

### **3.8 Thematic Analysis**

‘Thematic analysis is a method for identifying, analyzing and reporting patterns (themes) within data’ (Braun and Clark, 2006:79), and is viewed as a foundational method for qualitative analysis. How the data is coded is an important part of the research process. Inductive analysis was proposed, with no prior coding frame in place with the thematic analysis being data driven. However Braun and Clark (2006:84) note that ‘researchers cannot free themselves of their theoretical and epistemological commitments, and data are not coded in an epistemological vacuum’.

Another issue relates to the level at which themes are identified. Two levels are noted: the semantic level or the latent or interpretative level. Semantic analysis looks at the surface meaning and no further, while analysis at the latent or interpretative level examines underlying ideas. Latent thematic analysis is used where the development of the themes involves interpretative work. Braun and Clark (2013) note that latent thematic development comes from a constructivist paradigm in line with my epistemological values.

### 3.8.1 Phases of Thematic Analysis

According to Braun and Clark (2013:121) there are six phases in thematic analysis:

1. Familiarisation with the data.
2. Coding
3. Searching for Themes
4. Reviewing Themes
5. Defining and Naming Themes
6. Writing-up

In phase one of analysis according to Braun and Clark (2006) the researcher must immerse themselves in the data, becoming extremely familiar with all aspects of the data and note that it is important to read through the entire data set before beginning coding. Taking notes from phase one is important ‘as that phase provides the bedrock for the rest of the analysis’ (Braun and Clark, 2006:87). The transcription of verbal data, while time consuming and slow, is, according to Braun and Clark (2006), a good way to become familiar with the data. Braun and Clark (2006) add that as there is ‘no one way to conduct thematic analysis, there is no one set of guidelines to follow when producing a transcript...what is important is that the transcript retains the information you need’(pg.88). Braun and Clark (2006) note that the time spent on transcription is not wasted ‘as it informs the early stages of analysis’ (pg. 88).The 20 hours of audio video transcription analysis presented a real challenge in this study. The literature (Cotton et al, 2010) states that for each hour of recording there is at least four hours of analysis. In the context of this study, I was much slower than Cotton et al (2010) proposed, perhaps because I was new to this analytical approach.

In order to familiarise myself with the data in phase one I transcribed all 10 sessions (20 hours of data, resulting in approximately 250 pages of interactions). This took 6 weeks, possibly due to the number of contributors and the speed at

which they spoke. I found myself continually stopping and starting to check less audible comments. Initially I transcribed all the recordings in chronological order concentrating on what was said indicating whether it was me or a student comment. This was painstakingly slow but the idea was that I would be able to read the transcripts like a book to familiarize myself with the topic content. Next, I watched the recordings with the transcripts and identified each contributor by their name if I had not done so previously. With a holistic view of the ten weeks and a general overview of both the emerging topics and patterns of participation I felt I was at the first stage of gaining some level of insight about what was said and by whom (See appendix 5).

The second part of the initial phase of analysis was just as time consuming, requiring multiple viewings of the video diaries to familiarise myself with the other modes of communication. While the primacy of language in our culture is evident, and I now knew what was said and by whom, I also understood that the other non-verbal modes of interaction also formed an important part of the representation of the data in context. According to Norris (2004) observing proxemics, the way in which individuals use their space, 'gives insight into the kind of social interaction that is going on' (pg.19). Open and closed posture of arms, legs torso and head and directional positioning give some indications to the level of engagement or dis-engagement of an individual. Gestures, according to Norris (2004), include pointing at someone or following a finger while head movements may have clear meaning for example nodding yes or no and gaze is associated with 'organisation, direction and intensity of looking' (pg. 36). These are discussed further in the findings. In order to gain a deeper understanding of the non-verbal indicators I once again re-viewed the transcripts. Initially I looked at the tutor over the ten weeks, then the students and noted head movements, eye contact, laughter and other interesting non-verbal incidences. I did this multiple times, often re-playing a certain section over and over until I was comfortable with my interpretation of it. At the end I replayed the entire ten weeks and watched it like a film in order to get a holistic sense of this situation in context.

Consequently phase one, including transcription of the recordings and familiarisation with the data, and multiple viewing of the diaries for the other modes of communication and interaction, took considerable time to complete prior to phase two, coding.

Phase two to five, coding, searching for themes, reviewing themes and naming themes appear linear in approach, yet, were in fact, repetitive, iterative, cyclical and time consuming. Phase two, according to Braun and Clark (2006), is about producing initial codes from the data. These are items which are interesting to the researcher in regard to the phenomenon under study. Using the inductive approach and coding every data item initially is a cycle of looking, seeing and listening to the videos while simultaneously reading and trying to interpret what is happening in context. Pink (2007) states that analysing video is not simple and ‘the ambiguity of visual images and the subjectivity of their producers...give subjective meaning to their content and form’ (pg. 117- 119). Pink (2007) notes that, in analyzing video, it is not simply evidence of conversations and actions but rather ‘images and words contextualizing each other, forming not a complete record of the research but a set of different representations and strands of it’ (pg.120). Visual methods are rarely used on their own and, according to Pink (2007), ‘should be analysed in relation to other research texts’ (pg.136). As an ethnographer, it is impossible to record a complete relationship visually: rather, a recording is a snapshot in time, making it important to reflect during analysis and write up on the contexts in which these recordings were produced in order for the reader to have a picture of the situation in context.

Phase three allows the researcher to analyse and consequently group the codes into broad themes. Reviewing themes is phase four. According to Braun and Clark (2006), the researcher refines the themes during this analysis by checking the data set to see if there is enough evidence to support each theme. Some

recoding may be necessary as this is a recursive process, resulting in a refined thematic map.

In phase two I divided my themes into verbal (the topics) and non-verbal (the social interactions). I analysed the emerging topics first. I once again read through the entire transcripts and noted what appeared to be the more obvious topics. Six general topics emerged these included; student behavior, teachers role, resources, school culture, the staff room and teaching as a career. I then allocated each topic a coloured index flag and re-read the transcripts sticking the index flag in the appropriate places; I did this one topic at a time. I also noted new things that I had not identified in previous readings.

In phase three and four I re-read each topic individually checking for sub-themes and to see if there was a deepening of understanding or of co-constructed meaning over the ten week period. I did this for each topic until I was satisfied that nothing new emerged. This took iterative cycles and was very time consuming but was invaluable in familiarising myself with the topics. I took the same approach with the non-verbal indicators and watched the recordings with the transcripts and noted the interactions in context. Again this took multiple viewings and was time intensive. On reflection phase two, three and four occurred simultaneously. This layered approach was invaluable for phase five and six when I started to write up the analysis.

Phase five and six according to Braun and Clark (2006) is writing; phase five of the analysis to write a detailed description of each theme and how it fits into the research story and phase six to write up the research process, creating a story that incorporates the analytical aspects and the data extracts into a cohesive story about the research study, and its place in the current literature of the subject area.

In using thematic analysis the researcher needs to ensure that the ‘data interpretation is consistent with the theoretical framework’ posited, that data interpretations and analytical points coincide with the data extracts, and finally that the researcher picks ‘compelling examples to demonstrate the themes’ (Braun and Clark, 2006:95).

### **3.9 Research Legitimation**

There is an ongoing debate in the literature regarding the validity and reliability of qualitative research. Rapley (2007:128) terms it the ‘crisis of legitimacy’ and discusses that interpretive research, which is embedded in the qualitative subjective domain, provides rich description (Geertz, 1973) but this is criticised in terms of reliability and validity. In order to address this criticism the terms reliability and validity are examined.

Morse et al (2002) and Mertens (2010) recognize that reliability and validity are terms traditionally associated with the quantitative paradigm. Their account addresses the strategies used in qualitative research to ensure reliability and validity. Guba and Lincoln in the early 1980s replaced these terms with the idea of trustworthiness which included four aspects: credibility, transferability, dependability and confirmability.

- Credibility and Transferability replaced Validity
- Dependability replaced Reliability
- Confirmability refers to Objectivity.

Guba and Lincoln (1989) focusing on the qualitative domain allocates criteria to each of these aspects. While multiple criteria are listed, I refer only to the ones used in this study. They are as follows:

- Credibility (Internal Validity) - Prolonged and Persistent Engagement, Progressive Subjectivity and Triangulation.
- Transferability (External Validity) - Thick Description
- Dependability - Audit Trail
- Confirmability - Chain of Evidence

On reading the literature (Ritchie and Lewis, 2003; Silverman, 2011; Yin, 2009) I realised that the terms reliability and validity are commonly used by authors in the qualitative discourse. For clarity of reading I have used the terminology of some of the specific authors indicated above.

### **3.9.1 Reliability (Dependability)**

According to Yin (2009), reliability refers to the extent to which a case study data collection and analyses can be repeated with the same results, while Silverman (2011) believes it is underpinned not by replicability but by using appropriate methods that are rigorous, critical and objective in the analysis of data, in terms of the quality and interpretation of that data. In the constructivist paradigm changes occur but a researcher's aim is to make clear the research process from design through to data analysis and discussion so that a dependability audit can be conducted (Mertens, 2010). Scaife (2006) extends this argument by regarding 'reliability as a property of the whole process of data gathering, rather than a property solely of the results' (pg. 66).

This research is a small-scale case study and case study protocol, according to Yin (2009), increases the reliability of the research as it contains the procedures and rules to be followed. The protocol contains an introduction to the case, its



purpose, the data collection procedures and case study questions as previously outlined in this chapter. Ritchie and Lewis (2003) note the importance of doing this as it makes explicit a researcher's decisions at all stages in the research process. In response to these requirements, this study records all the CL sessions, short field notes taken during each session, along with a detailed weekly reflective journal (DeWalt and DeWalt, 2002). Field notes reflect on all elements of the interactions in the TCL classroom, noting verbal, non-verbal, aural and any other detail deemed significant. Using standardized methods to write field notes (DeWalt and DeWalt, 2002) I portray an honest record of ongoing events, the intention to maintain reliability both in the data collection and analysis process (Silverman, 2011). Case study procedures need to be clearly documented as poor documentation of procedures in the past has made reviewers critical of the reliability of the case study method (Yin, 2009). Consequently, I am explicit in regard to all case study procedures in this study.

### **3.9.2 Validity (Credibility and Transferability)**

According to Kirk and Miller (1986:21), see the issue of validity in the case of qualitative observation, 'not as a methodological hair splitting about the fifth decimal point, but a question of whether the researcher sees what he or she thinks he or she sees' while Scaife (2006) regards validity as 'the relationship between the claim and the accompanying process of data gathering' (pg. 69). According to Yin (2009) validity in case study research is measured in three ways construct validity, internal validity and external validity.

Construct Validity involves identifying the correct operational measures for the concepts being studied. In this research setting this study is exploring the collaborative learning process in a H.E. classroom and in order to do this the researcher is going to have to 'observe' the phenomenon in practice.

Internal Validity is where there is a convergence of several pieces of case data from which a researcher can infer a theme or result based on evidence collected from the case. Validity for the qualitative researcher is whether an accurate account of the phenomena under study is portrayed (Foster, 1996). Ritchie and Lewis (2003) argue that in order to check the accuracy a researcher must continually 'interrogate' the research methods used checking quality of sample, data analysis and data interpretation. This multiplicity of sources in the research process is designed to help internal validity (Descombe, 2003; Silverman 2011).

There are threats to internal validity, personal and procedural reactivity and observer bias (Foster, 1996). Procedural reactivity is where the participants act differently because they are being studied and may affect research results, in this study I am part of the normal classroom environment so limited procedural reactivity is expected. Observer bias is very important at analysis stage as it is imperative that a researcher as observer does not misinterpret what they see (Foster, 1996; Mertens 2010). This is a legitimate concern for insider researchers and in this research context.

In terms of credibility (Lincoln and Guba, 1989), prolonged and persistent engagement with the research site, the data and the analysis is encouraged. This equates to a researcher balancing involvement in the research site, spending sufficient time on site to gather enough data, while still maintaining the ability, to remain sufficiently objective in order 'to record accurately observed actions' (Mertens, 2010:256). The idea of credibility according to Bouton and Hammersley (1996:283) is 'whether the claim...given what we know about how the research was carried out can we judge it to be very likely to be true'. In the analysis of unstructured data researchers need to be vigilant and question what other data might be required to support the interpretations.

Progressive subjectivity is also addressed in this study. By maintaining both field notes and a reflective diary I aimed to monitor and document my thoughts and feelings ‘to provide insight into how they changed their understandings as the study progressed’ (Mertens, 2010:258).

The data is triangulated by combining and comparing the recorded observations, maintaining field notes, a reflective diary and by holding a focus group with the participants at the end of the research process ‘to test for consistency of evidence across sources of data’ (Mertens, 2010:258).

External Validity relates to findings generalizable beyond the research under study. In the qualitative domain the samples used are rarely representative of the population making generalization of findings difficult. Lincoln and Guba (1989) use the term transferability for the qualitative domain, placing the burden of ‘transferability on the reader to determine the degree of similarity between the study site and the receiving context’ (Mertens, 2010:259). Simply it is the responsibility of a researcher to provide adequate details to allow the reader make this judgement. This study aims to provide thick description (Geertz, 1973), that is detailed and accurate narratives of the place, time, context and culture to enable the reader to understand the participants and the research setting in context.

Finally Ritchie and Lewis (2003) discuss generalisability in two parts. Representational generalisation to the parent population relies directly on validity and reliability of the research methods, particularly data analysis and interpretation. Inferential generalisation lies in the ability to generalize the research to other settings and contexts. In order to achieve this, the research context needs to be explained explicitly and in-depth to the reader. This social research study is specific in context and acknowledges that there will be limitations and challenges with regard to generalisability. This research sample,

although small, comprises of specific users of the TCL environment under study and, as such, is a purposive sample. It is not unusual for qualitative researchers to pick a purposive sample where the processes being studied are happening (Silverman, 2011).

Although there is debate in regard to the terminology used by different authors in the literature, there appears a parallel in intention. Morse et al (2002:14) refer to it as rigour and succinctly state ‘Without rigour, research is worthless, becomes fiction and loses its utility’. What is important is that we as researchers build into the research design, strategies that ensure our research is rigorous, meet the necessary criteria and continue to safeguard qualitative research standards.

### **3.10 Limitations of the Design Frame**

There are limitations to this design frame: No pilot study was carried out because of my long term involvement and facilitation in developing this module. As discussed previously, the research questions arose from my eight years’ experience, and from an ethnographic perspective, I was confident that although this research is exploratory in nature, this specific module and cohort seemed suitable to answer my research questions.

The limitations of case studies have been cited as lack of rigour, little basis for scientific generalization and the extended length of some case studies (Yin, 2009). I do not expect to generalize scientifically from the data but rather to analyse the data to gain a deeper richer understanding of the processes associated with collaborative interaction in this specific learning environment. Lack of generalizability, acknowledged in section 3.9.2 above, is perceived as a limitation of case study research but generalisability has never been an aim of this research study.

### **3.11 Chapter Conclusion**

In response to the literature on qualitative methods and methodologies, I acknowledge the criticisms of reviewers on the terminology and try to clarify reliability, validity and generalisability in qualitative terms. In response to the criticisms, I outline in detail the decisions taken in relation to the design frame around a visual ethnographic approach, the reasoning behind the data collection methods while acknowledging the challenges of insider research and the ethical responsibilities associated with this approach.

I am aware that as an ethnographic researcher, I had to manage personal preconceptions during the research process. As a stand-alone single researcher, there are no other research partners to temper that subjectivity but I aimed through clarity of process and thick description, to give the reader an honest and authentic account of the research.

## Chapter 4 Findings

### 4.0 Introduction

An advanced form of collaborative learning termed ‘true collaborative learning (TCL)’ was proposed earlier, an idea introduced by Parr and Townsend (2002). Earlier having engaged with the literature I defined TCL as:

‘a student-driven, multi-directional, highly interactive learning process that enables students to work on highly unstructured and emergent topics with high levels of uncertainty, facilitated by a tutor’.

As the data below suggests, there are key practices in each element of this proposed TCL environment, themed as; *topic*, *tutor*, *student* and *interaction*. These contribute to some understanding of what makes CL ‘true’. In analysing the data, the challenges and tensions in promoting this practice, are highlighted through the emergence of recurring and intertwined themes. The purpose of this chapter is to give some insight into the practices of TCL, revealing the interdependencies of each element within this learning environment. The chapter outlines the main findings of the research over a teaching semester, explains the research context briefly, clarifies participant coding, and outlines placement schools to contextualize the information. The group of 12 third year students are observed and recorded during their weekly collaborative classroom sessions.

Underpinned by a social constructivist philosophy, the findings focus primarily on the verbal, non-verbal and other multimodal factors that emerge from the TCL environment. The visual ethnographic approach allowed for a holistic representation of the interactions, giving talk, intonation, and laughter (verbal interactions), and posture, gaze, proxemics and gesture (non-verbal modes of interaction) equally important roles in the analysis.

The findings are triangulated (Mertons, 2010) and come from three strands of data: firstly, transcripts and recordings of the collaborative learning sessions; secondly, the researcher's reflective diary; and finally, a focus group of the participants' thoughts on this learning environment, held at the end of the semester. The first two data sources are observed and discussed from my perspective. The reflective diary is a record of my intimate thoughts and observations during my immersion in the TCL environment as previously discussed in chapter three. The data from the recordings and the reflective diary run simultaneously on the same timeline and hence are intertwined in the findings. The information gathered from the focus group is an indication of the students' thoughts, expressed in their own words, about this learning environment.

The difference between the implementation and enactment of TCL forms one of the focuses of the analysis in the discussion. To implement something is to carry something out or put something into action whilst enacting requires buy-in from all parties involved in the action. Implementing TCL, I believe is not difficult; it is giving somebody the tools to do something. However enacting TCL is I would argue, far more difficult, as all parties need to be involved and engaged in the process. For example any classroom has four elements (*topic, tutor student and interaction*), but for enactment of TCL, it is how the four elements interact, in particular the levels of interaction, that determine whether it is achieved.

Presentation of analysis is structured around five main themes identified above, *topic, tutor, student, interaction and the student comments*. Each section has a table identifying the main themes that emerged from the findings. Section 1 to 4 record the researcher's observations and Section 5 focuses on the student comments about the TCL environment. Section one explores two topics from the transcripts probing to reflect on the levels of student learning in TCL. Whereas the themes that emerged, were drawn from the actions, positions and dispositions of the participants in the TCL environment and are identified in the text in italics

in Section 2, 3 and 4, in line with Braun and Clark's (2006) practices of thematic analysis.

Section 1: explores two topics discussed by the students over the 10 week period.

Section 2: considers the tutor's role in the TCL environment.

Section 3: explores the student contributions and interactions in the TCL process.

Section 4: explores TCL interactions.

Section 5: records the students' comments on the TCL environment.

The chapter concludes with a brief overall summary of the main themes.

#### **4.1 Research Context**

The participants in this study, outlined in detail in section 1.1 (Chapter 1) were twelve third year business degree students on a flexible semester educational placement and are referred to as trainee teachers for this semester. Every Tuesday/Wednesday during the semester as part of Managing the Project Module, a classroom-based student-driven discussion is facilitated by me and attendance is mandatory. The findings were collated from these recorded discussions.

The classroom is a traditional classroom with free single tables and chairs seating approximately 50 students. This group of twelve students chose to sit together at one side of the room, normally four to five rows of two or three students facing forward. I sat on a chair with no table in front of me as I wanted no physical barrier between myself and the students. Each class started by me inviting any member of the group to share something about their week and the discussion would unfold and evolve from there with some questioning, probing and encouragement from me during the interactions, carried out in a casual informal way. The topics discussed during the semester are outlined in Appendix 4. A single camera recording these discussions was positioned on a stationary tripod at



the front of the room in one corner, giving a singular view of everyone in the room. In general the camera was ignored by the students. The purpose of the camera positioned behind my line of vision was to give me a holistic overview of the entire group for analysis, allowing for verbal, non-verbal and other visual indicators.

The camera was fantastic for recording all the verbal contributions. It enabled me to concentrate on facilitating the sessions, rather than taking notes or relying on memory as discussed earlier in the methodology chapter. The multimodal elements of communication, particularly the non-verbal indicators, are crucial in terms of interaction. As researcher I was aware that the single camera would also record some of these, and that I, as facilitator, would come to appreciate some of the other subtleties of expression or body language during my time with the group. However, as discussed in the methodology, and in agreement with Pink (2007) this would always be only one representation, my representation of these interactions.

In the first and second week of the college semester there were no group discussions. These weeks were used to explain and request the permission of the students as research participants. This time was spent answering student queries, giving a very brief explanation of the research area and setting some ground rules for all participants, so that everybody was comfortable and confident to be part of the study. It also gave the group some class time to get to know one another a little better in an informal relaxed manner. The group was given written documentation regarding the research (Appendix 1, 2, 3,) and encouraged to think about it for a week. Once all the forms were returned, the TCL sessions started in week three of the semester, this coincided with week one of the student placement in their host schools.

The group consisted of eight females and four males, each identified as F1 to F8 and M1 to M4 respectively. This allows the reader to appreciate the gender of the participant and the frequency of contribution of each during the process. A brief summary of the schools is necessary to contextualize contributions:

F1 was placed in an established all-female large post-primary school located in a city.

F2 in contrast was in a country town post-primary community college.

F3 was in an all-girls large country town, post-primary school.

F4 and F6 were both placed in their old school, which is an established all-girls school currently located in a brand new purpose built premises.

F5 was in a large all-girls primary school

F7 was placed in a large all-girls post-primary school in a large town.

F8 was also placed in a large city based all-girls school.

The males (M1 and M4) were placed in the only all-boys post-primary school in a large town, while M3 was placed in his old school, a very large boys' post-primary city based school. M2 was in his old school, a large country post-primary community college.

## **4.2 Section 1: The Topic**

The ‘topic’ as discussed in chapter one is the focus of the discussion. It is student generated through evolving dialogue in their TCL sessions.

This section focuses on two student topics discussed over the semester. It describes, using the students’ words in natural discourse, some extracts from each topic as it evolved Week 1 to Week 10. The passages chosen below are extracts from the transcriptions, as discussed in the methodology. These topics and sub-topics evolved from the students’ seemingly trivial mundane anecdotes. As I show, through student interaction and iterative cycles of dialogue, some of these discussions appear to lead the students to a deeper level of engagement and understanding of the topic.

The information presented in Appendix 4, is a summary of what the researcher sees as the main topics and sub-topics extracted over the ten weeks as these discussions unfolded. These include student behavior, the school environment, the work environment, the education system, careers and resourcing in education. It tentatively identifies the sub-topics and discussion points aligned with each, in order to show the diversity of the emergent topics, and the re-occurrence and development of certain key topics.

In the first four weeks of placement, the conversations were descriptive as the students settled into the new group. While unstructured, the topics loosely unfolded from incidents experienced by the trainee teachers in the host school environment. Two recurring topics are explored in greater detail below, resources in education and student behavior.

## Topic 1: Resources in Education

On Week 2 the students recognised the importance of, and pressures associated with resources and in particular the requirements of multicultural pupils. The conversation initially focused on a Somalian primary school child, aged 13 who will go to post-primary next year.

1. F5: Yeah. But I...I just think, like, what's going to end up of her now. Do you know what I mean? I don't know should they be... I don't know if this is politically correct...
2. Tutor: Go on. (Trying to encourage the student to be open and honest in her opinion)
3. F5: should they be allowed come back, come here and go to school at that level and be, you know, a drain on resources here?
4. Tutor: Or, how could we (overlap)
5. F5: It's not fair on her, like, at the end of the day.
6. Tutor: Very good. So talk about it from one point of view then. How would the rest of you feel about it? You are, you are the second school teachers. Think about it from the point of view that you're getting her in September. (Challenging the group to put it in a teacher's context)
7. F1: There's two, em, girls that came into my second year Business class, and they only came recently...They're from Zimbabwe I think and they have no Business experience either, they've never done Business or anything and they were just put into that class, like. But I asked them, I told them to put up their hand if they knew the answer. But, like, the teacher said, like, he was never told that they were going to be in his class or anything, so they just came, like. They have no experience doing any sort of business subjects or anything.
8. Tutor: So, is there an issue here?
9. Multiple voices in agreement: Yes (*all are listening and in agreement*)
10. (The students' discussion diverts to age and intelligence levels but then returns to resources)

11. F3: I think she should be given more resources in secondary school. I mean, they know that's she's coming. Is she prepared? Like, everyone is entitled to an education. So, like, she's twelve it's not her choice that she's here, like. It's..... *(From the tone of this interaction this student really believes strongly that everyone is entitled to an education, the entire group are listening, shoulders up and body language is alert)*
12. F8: Like, I have a girl in fifth year in accounting. I teach her but she's, em, I don't know where she's from. Could be Africa, but she doesn't talk and she doesn't, she barely understands me. And there's only three of them in the class anyway. And I've tried to pull them out like 'Ok, where do you think that comes from' or whatever, and she just has to point. And I'm like, yeah, yeah she can say it like but she, she really struggles, like.
13. Tutor: Ok. How do you feel about that as teachers', guys, to see a child struggling at that level? *(posing a question to encourage interaction)*
14. F6: I feel sorry for her, because, like, I feel really sorry for her. Because...*(doesn't finish sentence)*
15. Tutor: Fair enough, what else? Like, is this an ongoing issue in Irish schools?
16. F1: She's going to be completely lost in secondary school then, with maths and English and everything
17. F2: I think it's the school's resources though, like, schools literally just have it, well, I don't know... *(She has her hand up to her chest as if she really believes it)*
18. Tutor: Yeah, no no no, fair enough. No, no this is what I'm trying to get at. You are all circling around it but none of you have actually said it. Go on.
19. F2: But, my school, like, it definitely does not have its resources, like. There are four Business teachers, and you know the way every business book has the activity book. One out of the four business teachers have the activity book. None of the students have them. So every time I want to photocopy something I have to go and find him, photocopy it and give it back to him then. So four of us are sharing one activity book...And then, like, in all the classrooms, like, there's nothing done up, like, in any

of the classrooms. Like, none of the classrooms have clocks. This was really weird for me, like. None of them have working clocks. I don't think, I don't get, like, why you wouldn't, like, why you wouldn't have a clock in a classroom, like? But, like, there's always something not working or there's chairs broke or there's something, like. It's really, like they literally do not have the resources (*hands moving indicating no resources*)

The discussion recognised that multi-cultural pupils with little or no English create real challenges for educational resources and while they were aware that voicing this thought was not politically correct, it led F3 to suggest that everybody is entitled to an education.

The issue of lack of communication from school management to teachers in regard to these students is also acknowledged. The teachers also commented on the barriers that will be faced by these pupils in post primary schools.

Physical resources were mentioned, hinting at disadvantaged schools and poor classroom facilities. Six females F1, 2,3,5,6 & 8 drove this conversation, while the males listened but said nothing regarding resources. While some of the issues surrounding resources are introduced here in week 2, there is little elaboration as yet. The tutor interjects quite regularly to question, probe and encourage continuation of ideas and engagement at this stage of the process. The group exchange ideas but don't get to the core of the topic, speaking around it, offering other ideas around the topic.

At the end of week 9 after a lengthy discussion on student behaviour, two of the teachers F2 and F7 returned to the topic of resources.

20. F7: It's resources. There's still things they can't do and they want to, I know two girls in third year, they're sisters and they want to do music for the junior cert, because they want to be, one of them wants to be a

music teacher. And they can't scratch one on the back without the other person knowing, they're so close. And because one wants to do music the other one is as well, but there's nowhere for their music class, so then the mother's paying for classes outside. And like, I give grinds as well but (?) like I'm giving them grinds (grinds are paid extra tuition that students receive outside school) as well. So she's paying for extra maths classes and extra music classes because there's none of the resources in the school.

21. F2: Yeah, but about fifty percent of all the issues that teachers have could probably be solved if they had better resources.
22. F7: I'd say more than fifty percent
23. Tutor: Ok, will we have a conversation about resources on Monday?
24. Multiple Students: Yeah (*group agreed verbally*)

Once again in week 9 the conversation concerning lack of resources at post-primary was extended, arguing that 50% of teachers' challenges in post-primary education could be solved by adequate resources and connecting lack of resources to teachers' problems. As session time came to an end, the group agreed to continue with this topic next class which was week 10 of their placement in the schools, and week 12 of the semester.

In week 10, F2 initially takes over the whiteboard at the start of the session, mind mapping the group discussion with F7 taking over midway. There was no indication that there would be a changeover, it just happened very discreetly and silently. Both took direction from the group, take part in the discussion and display the groups' contributions on the whiteboard as the discussion progresses. Below the group have now come to a point in the discussion where F5 vocalises a recognition that resources have to be allocated by someone.

25. F5: When we speak about resources like, obviously there are people that sign off on decisions. For each school do they have a list of what resources they need? Like what way is it broken down? It's a broad term

- like... (F5 is asking the group to contribute, not me –the tutor-, F8 explains what happens in her school, as tutor I note to myself with a little pride the use of the word ‘obviously’, because this did not appear a bit obvious to them a few weeks ago... but it seems to be now suggesting a growing recognition of the importance on multiple levels and a deeper understanding of it on their part, some evidence perhaps of their journey through a zone of proximal development)
26. F8: In our school there’s a list of resources that every child would need, resources for every year and what subjects it is and why? And what their learning disability is or whatever... It’s a big huge page on it (required resources for the school) basically
27. Tutor: Like a spreadsheet is it? (I query what it looks like)
28. F8: Yeah (*nodding her head*). And then it’s given out to all the resource teachers. And they just tick off whichever one that you do. Like one of my friends was doing resource in there, and the main resource teacher basically told him don’t worry too much about the first years, concentrate on the third years cause they have their junior cert. But I think there should be a balance, like he was like ‘don’t worry about the first years too much, just get to the third years’
29. F5: Does every school have that though? Like is there a structure in place that’s consistent across every school, that they are aware where the gaps are and put things in place to support that (deeper probing from F5 who seems to want to know more about these practices, in earlier weeks I would probably have had to ask this question but the students now seem to do it themselves, deeper probing)
30. F6: Like I didn’t even know there was a resource teacher in the school (statement of from F6 and then the group digress to SNA’s- special needs assistants who are not trained teachers but who are assigned to work with children with physical and learning disabilities- for quite a while returning to resources)



School resource management plans are referred to and whether there is a national management plan in place is queried. The new Junior Cert and the finite resources of teachers in a school are noted as future resource issues in Irish education.

31. F7: Just that like, there's one girl in third year unclear...she can't straighten her neck. And then they can't get through to the government department to award her an SNA. There's learning support teachers in Wexford, and they literally cannot get through to this one woman. And she like sanctions all the decisions (*her hands are open, palms up and her voice ... emphasis the fact that they cannot get through to this woman...even though she makes 'all' the decisions.....the student is almost incredulous that this can happen. We digress again to SNA'S but return to resources with a question from the tutor that refocuses them*)

Several ideas are now emerging, initially the thought that resources or getting resources involve a decision making process comes to the fore with F7 noting the difficulty in accessing these people but realising that somebody has to sign off on these decisions.

32. Tutor: So do you think resources are an important issue in schools?
33. F7: Yeah, one hundred percent
34. F5: I think as well, resources are not just in manpower, it's the equipment and stuff because one of the classes have, one of them actually have you know the projectors, the interactive board
35. Tutor: Oh I do (*agreeing with feeling*)
36. F5: And online games and stuff like that, they're a really fun way of learning. So if a school, especially a primary doesn't have that, what do they have then to make it fun? (*Appearing to reflect on why they are important...to making learning fun*)

37. Tutor: Ok, so you think the resources are as important being equipment... ( This comment makes no sense as I was interrupted by M4 who wanted to extend the idea, significant in that I am now just another voice in the group one of 12 rather than 'the tutor')
38. M4: Talk about facilities and stuff as well (M4 now facilitating and directing the conversation ... a eureka moment in terms of TCL and student driven rather than tutor managed... *while M2 AND M1 smile in agreement at M4*)
39. Tutor: Talk about resources as facilities as well. Ok give her a minute, she can't write as fast as you but go on (*F2 has gone to the board and is mapping the conversation and I'm asking the group to let her catch up...the ideas are flowing quickly and quite fluidly*)
40. M4: Where I was in school, like I went to School XYZ (renamed for confidentiality) and we didn't even have showers for after PE or anything, do you know that kind of way? It's disgraceful. You'd be sitting around smelling like dirt for the day. If you have PE first thing, that's you for the day
41. F7: It's the same where I went to school
42. M4: It's just not right, like
43. F2: Showers, in school? (*Her tone is disbelieving as she came from a very disadvantaged school*)
44. M4: They surely had toilets in that place (*making fun in a supportive way and I suppose an indication of the closer relationships developing within the group that they now tease each other quite openly even on what could be areas of a sensitive and very personal nature*)
45. Tutor: No showers, put down no showers we'd better pay attention to him (*teasing M4 and making light of the moment*)
46. F7: When I was in school and there were no showers. I think the sixth years had showers but only sixth years were allowed to use them
47. M4: Like we literally had a dressing room when I first went in to the school
48. F7: We didn't. We used a learning support room

49. M4: Yeah, we used a room but two or three years in, we had one built in the GP. It's just ridiculous
50. F2: Is the GP like a hall?
51. M4: It is. No not even a hall, like. To do activities? Nah... a big yard... A load of concrete (laughter and *smiles from the entire group who are really alert and listening*)
52. Tutor: So if you're talking about resources, who do they affect ultimately at the end of the day? (Redirection from tutor who is trying to guide the conversation away from showers and back to resources)
53. All members of the group say: Students (*This is a general consensus*)
54. Tutor: Students? (Echoing)
55. F3: It's very difficult for a PE teacher to teach basketball if they don't have basketball hoops... (*Laughter*)
56. Tutor: Yeah. Ok (*Enjoying the moment with them*)
57. M4: We had them but they were rotted... (*More laughter*)
58. F6: There's some difference in the resources in the school now than when we were in the school (F6 and F4 are back in their old school which was a leaking building with multiple portacabins for classrooms..... and is now a brand new purpose built modern school)
59. Tutor: As in facilities...resources for the students? (Probing)
60. F6: Yeah. Even with the equipment, like we have projectors, new computers in every single room. I think there was maybe one or two in the old school that would have had that. You know the staff study room, there's two of them now, they wouldn't have had anything like that in the old school
61. Tutor: Staff Study Rooms (echoing)
62. F6: There are loads of new things, like that. It's weird to us now because we had nothing
63. F4: There's rooms everywhere, there's meeting rooms, learning support rooms, there wouldn't have been that, it would have been whatever classroom was free (*sitting beside F6 looking at her to confirm this*)

Physical resources which were mentioned in week 2 were expanded upon and there is some evidence of the beginnings of deeper learning as the students explored the multiple resources in the school environment, physical resources, teachers as resources, space as a resources and the importance of resources to the reputation of a school. This specific episode (Volet et al, 2009) of collaborative group interactions (Line 32 -63) show that the TCL contributions now appear to link into meaningful sequences illustrating Alexander's (2008a) dialogic learning. Resource space, both mental and physical, is now considered significant for learning as discussed in the literature, and there seems to be a greater awareness from the group as they tentatively begin to link lack of physical resources to both teacher and student problems within education, suggesting a possibility of the group completing one ZPD, reaching a new level of current development.

Group interaction in the extract above show the elaboration and extensions of thoughts discussed critically and supported by multiple modes of communication (shown in italics) gesture (Line 17, 19, 31), head movements (Line 28), posture (Jewitt, 2009), smiles and laughter (Flecha et al, 2009) (Line 38, 51, 57, 55) and direct eye contact (Line 63) between the group may be evidence of the emergence of TCL in this environment.

The types of dialogue reflect aspects of both Barnes and Todd (1995) initiating, eliciting, extending and qualifying categories of interaction (Lines 25 to 30 or 32 to 38) and also echo many of Mercer's (1995) cumulative and exploratory dialogue qualities supporting a deeper level of interaction suggesting the possible emergence of TCL within this group in this setting. This is outlined further in the discussion chapter.

64. M4: I think that has a lot to do with the principal fighting for funds then as well because, like, since the change of principal in my school, I was only there for two years when he took over but he did so much in that two years compared to what was done in all the previous years, it was crazy

65. Tutor: It's the principal's role you think? (Probing)

66. M4: Yeah and you could see the huge, like, I've only been in there once or twice in the last three years, say, you can see a huge difference even from the outside of the school. That doesn't seem like a prison anymore or like, an underprivileged school, like. Now it kind of seems like a regular school that you'd send your child to (*smiles from the group at the image of a prison*)
67. F7: P-R-I-N-C-I-P-A-L (F7 spelling the word for F2 who is at the whiteboard drawing a mind-map of what is said)
68. Tutor: Principals? (Emphasising the 'al' in the spelling)
69. Students: Role
70. Tutor: Role is to get funding?
71. F8: Yeah they want to make an impression; they want to change the schools, especially a new one
72. F6: A new principal, yeah
73. F6: And even sometimes it doesn't have to be a new principal, because our principal, he retired when we were in sixth year, Mr White, and he was lovely, like. And he fought for his whole, nearly the whole time he was principal to get the new school. And we were prefects in sixth year and that's when it went through then. He retired in sixth year, when we were in sixth year so he did all the work to get the new school and then retired, and say, passed it on, do you know what I mean? So, like, it doesn't have to be a new principal either, like, you know?
74. Tutor: Yeah. But he was the principal who fought for the new school

The principal's role in attaining and managing resources was used to illustrate the importance of the management of a school and the controversial thought linking power and resource abuse was raised, indicating a new emerging ZPD for the group to work through together. Following this the students gave explicit examples of power and abuse that they were aware of but once again returned to the topic of resources.

75. F6: Yeah, like it's only because of him we have it (the new school)
76. F7: I think schools kind of abuse resources as well. (*The student then proceeded to share some personal experiences of abuse that they were all aware of in both their own schools and other schools, having listened to several experiences in relation to misspent funds, principals' abuse of grants etc. I try to probe using the word abuse previously used by one of the students while sharing their experience in an effort to refocus the discussion, particularly as we are coming to the end of scheduled class time.*)
77. Tutor: So this is where we had a real abuse of?
78. M4: Power and resources
79. Tutor: So, what are you telling me? In general, what are you saying about resources as a group? That they're what for schools? (*Questioning and enquiring for group consensus or lack of agreement*)
80. F7: Limited
81. Tutor: Limited. Right (Statement of fact). If you have them what are they? (Probing)
82. F1: Abused
83. Tutor: They can be abused. Anything else? Like if you had to sum it up in a sentence, what do you think they should be?
84. M4: They're beneficial once they're organised correctly
85. Tutor: Beneficial once they're organised correctly (echoing)
86. M4: They're vital (said with strong feeling)
87. Tutor: They're vital, ok. Anybody else say anything about them?
88. F6: They're important
89. Tutor: Important. Important for? (Echoing and questioning)
90. F6: To help with students' learning

There is in the conclusion some realisation that if management and expenditure of resources are done correctly, there is a possible link between correct use and distribution of relevant resources to student learning. I am aware and can recognise that this group of students linked the management of resources to student learning and that this awareness by the group is a possible indication of the beginnings of TCL in this context.

**Table 5: Summary of Resources in Education**

Topic 1	Depth of Discussion Development
Week 2 multicultural students are seen as a drain on resources, though entitled to an education.	The students question this immediately, some expressing their thoughts quite clearly
Week 9 resources are once again a focus	This time it is linked to teachers problems with the student offering her thoughts that resources could solve 50% of teacher issues, relating resources to the wider world of teaching and teaching problems
Week 9 also explores different types of resources	Exploring the different resources in a school , looking at patterns and acknowledging that allocation of resources is a decision making process
Week 9 also sees the group realising that there is a link between resources and learning	This suggests a deeper understanding of the resource problem through cautious discussion and group evaluation.

The students on the topic of resources in education question from quite early in week 2, interacting in an interested and engaged manner and appear to have a deeper understanding of the topic and its multiple issues as the weeks progress, both in relation to teachers, student needs, the school environment and the place of physical resources in learning. The topic for this group moved from the pupil to the wider world of school and the influence the wider world has on what resources are allocated to schools. An underlying pattern that emerged was the importance of decision makers, having access to them and having interested principals who target and use these resources in a responsible manner.

The group TCL interactions and levels of dialogue suggest that these students, helped by the tutor initially and later by capable peers, may have, over the period of ten weeks, crossed Vygotsky's ZPD by using their interactions to scaffold their

learning in this learning environment. This also supports that TCL may, similar to Alexander's (2008a) dialogic learning strategy, use the power of talk to extend thinking and to advance learning.

## **Topic 2: Student Behaviour**

Student Behaviour emerged as a strong topic driving the early discussions. Under this topic two main sub-topics were evident, appropriate and inappropriate student behavior.

- 91. F4: No they're so bold
- 92. Tutor: They're so bold? (Repetitive questioning and echoing)
- 93. F4: Yeah, they're so bold, and two third year classes they're so bold ...  
there's like four or five of them that are just like crazy

In week one F4 mentioned the inappropriate behavior of the pupils. She referred to them as bold with surface recognition of the issue from others members of the group who contribute that they also have bold students and the conversation moves on to other things. F2 concurred that her class was 'pretty wild'. In week 4 the group returned to the topic of student behaviour briefly, this time differentiating the behavioural types as immature and simply doing nothing.

- 94. F1: Yeah. It's just one class. They're not bold or anything, they're just immature.
- 95. F6: She's not bold, she just does nothing. She doesn't even disturb the person sitting next to her. Last week she was sitting next to a girl and that girl was working away grand.



Week 8 student behaviour is once again mentioned during and at the end of the session with the teachers deciding to talk about it again the next class and I am asked 'to bring white board markers' with me. As the class starts, I am once again sitting at the back of the room with M4 at the whiteboard facilitating the conversation. I call the session to order reiterating yesterday's thoughts and opening up with a question. I feature very little in the discussion, just observe and throw out the odd probe.

96. Tutor: I'm not starting this conversation, you all started it yesterday...  
you said student behaviour is an issue in the classroom. What I'm asking  
is why, or what do you mean by that and why do you think that is?  
(*'Why'* questions always seemed to make them think more)
97. M4: What do I need to write then? (*Student up at whiteboard*)
98. Tutor: You're in control up there. Off you go (*At back of room*)
99. M4: Come on, lads (*Takes facilitation of the group*)
100. F5: I think there's an aspect of (*takes time to re-arrange her thoughts*),  
there's probably about four problem children in the class but they're  
holding back the rest of the class and there's a whole mind-set and  
culture of being needy and disruptive because the others get away with  
it so I think there's probably an aspect that it's learning from your peers.  
Then I think there's an aspect that there are genuine behavioural issues  
like...emotional issues maybe. So... (*M1 and M3 who were sitting directly  
in front of her glanced back and smiled encouragingly*)

Culture and peer pressure were new elements introduced around the topic of student behaviour, with the participants also recognising that there were genuine behavioural issues as well.

101. M4: So would you say it's a learning disability for others from just...I  
don't know (*Probing and querying and now facilitating the group*)

- discussion as I would quite effectively with the group listening to him and contributing)
102. F5: Yeah I would say there's definitely, that you've got the disabilities, that's one section, but I think if there's too many of them in the one class, they're going to rub off ( an Irish term meaning to influence) on their peers and they're going to have a whole classroom of disruptive people
103. M4: *(Making notes on the board)*
104. F5: Put on disability for one and say ( F5 is giving directions to M4 at the whiteboard)
105. M4: Yeah, so you could nearly say pressure from other students...maybe *(Pause before the maybe, tentative offering, almost questioning)*
106. F5: Yeah
107. F2: It could be the size of the class as well. Like, if someone's in a big massive class and they feel like they're not getting attention, and the child that has a learning disability is getting attention, they'll just start acting up to get that attention, so it could be the size of the classroom or the size of the class that's an issue *(phrasing it as a question while looking at F5 who is sitting beside her and then over at me to include me in the conversation)*
108. F5: I think it could be the teacher as well
109. M4: Would that come down again to the size of the class as well?  
*(Questioning and probing as I would have done if I was at the top of the room)*

During this interchange between F4 and F5 initially they seemed to explore the topic, relating it to the wider world and looking for patterns by questioning each other and testing the ideas expressed. Behaviour is now considered in terms of culture, peer learning, class size and genuine emotional needs. The conversation meandered a little around the topic of teacher favouritism for a while but once again returned to behaviour and where its origins may lie. M4 in line 109 appears to have taken on the facilitator's role once again, significant in that it intimated

the significant change in roles, facilitator as a member of the group and student as group facilitator one of the critical differences in the TCL environment.

110. F5: Because they definitely...the teacher was talking to me about their backgrounds and any obstacles that impact on their development.... It's perception, like...
111. M4: So what you're saying with perception is you should respect backgrounds, maybe? (Still facilitating the discussion and probing)
112. F2: Perception and background
113. F7: You need to leave room for respect now as well ( *this is F7 , F2 F5 simultaneously suggesting to M4 what to do with his mind-map and lists on the whiteboard...at this point two of the females are pointing and giving instructions and amid much laughter from all the group are telling him where he should put the information and he is good naturedly taking multiple directions from all three while telling me I should throw out my whiteboard markers...they are useless , M1 in a display of support verbally encourages him when he has succeeded in keeping all three females happy and M3 while silent smiles through much of the banter*) and the conversation continues
114. F2: I think people are diagnosed with learning disabilities too quickly now
115. M1: Yeah definitely
116. M4: (decides he has enough of managing the board and F7 takes over this is done very quickly and easily with no-one taking any notice of the changeover)

The discussion now deepened between some members of the group as social background, perception and respect were added to the elements surrounding behaviour demonstrating cumulative and exploratory interactions (Mercer, 1995) with a comment on the current educational practice of diagnosing learning disabilities.

117. F5: In reality you'd wonder do the rest of the class stop (behaving) then because a couple of the people in the class are disruptive?
118. F2: Oh they definitely do
119. F5: Have, like a learning disability, causes disruption and ....
120. F2: Just the time you have to take out as well, like, and I'm not saying that's a bad thing but you do have to take time out (as a teacher to deal with it)
121. F5: You have to literally have a different curriculum for them really

The topic was further expanded by F5 who considered the disruption behavioural issues cause to other members of the class, with F2 firmly in agreement recognising the time and curriculum issues associated with these behavioural issues for teachers practice in the classroom today.

122. F2: I wouldn't even; I wouldn't say learning disabilities, just disruptive more so than a learning disability. Like, I don't think that they would have anything, like, diagnosed but...it makes it, you have to change the way you teach and the way you have to explain the same things a few times. That would be frustrating. And then if they're watching, like, let's say the good girls in the class, they're watching them and then kind of saying 'Well if she can get away with it, why can't I do it'. Do you know that kind of way, you kind of hear some of them then that usually do their work, and if they sit next to one of the bold girls they wouldn't do the work then either (Peer Influence)
123. F3: I think teachers will always come across difficulties in classes. Every class is different it's not going to be always learning disabilities, like, I think now, like, with modern culture with so many families emigrating, and Polish families coming in and children going to school from different countries, and then you've got age barriers, (?) and I think just their general culture is completely different (*This student was less vocally*

*collaborative than the others, sitting alone at the back of the room for most of the sessions)*

124. Tutor: So the modern, modern culture of different nationalities in the classroom (This was the first time I had to interject for quite some time, they appeared to be more self-directing, self-questioning and self-sufficient, both as a group and their control of the discussion, in these ways they seemed to be enacting the TCL ethos)
125. F3: Yeah (agreeing)

Interestingly behavioural issues are now associated with peer influences and are also attributed to ‘modern culture’. The term modern culture in this context refers to the influx of multinational, multilingual children appearing in primary and post-primary classrooms in Ireland, alluding to the societal changes in the last decade. There followed a discussion on student experiences with difficult students and how teachers reacted to them with F7 summing up the groups ideas succinctly, linking student behaviour to teachers classroom practices extending and qualifying (Barnes and Todd, 1995) on the previous students contributions.

126. F7: So I think, I think a lot of student behaviour is based on how teachers treat the students
127. Students: Yeah (General consensus from group, *heads nodding agreement*)
128. F5: I really do believe if you connect with your student, and they know what you’re there to teach them and that you’re willing to help them, that whatever you put in you’ll get back.
129. M1: It’s more if you show you actually care about them

Here the discussion appeared to be taken to another level with the students now trying to explore how to manage these behavioural issues and the responsibilities of a teacher to do so.

**Table 6: Summary of Student Behaviour**

<b>Topic 2</b>	<b>Focus</b>	<b>Depth of Thinking</b>
In the first week the student labeled the students behaviour as Bold (Week1).	Bold	Stating this simply as fact
Sometime later (Week 4) the students began to differentiate student behaviour.	Immature Doing nothing	An awareness of different types of student behaviour beginning to understand that bold may mean different things
In the later weeks (Week 8) the students continued to probe and question ideas.	Peer Learning, Curriculum Modern Culture Societal Changes	Relating ideas to the real world Examining ideas and questioning Actively interested in the ongoing discussion

The students in the collaborative discussions had, over the course of eight weeks, moved from surface acknowledgment of bold student behaviour, initially accepting ideas without questioning them to exploring some of the underlying issues and relating them to not just the classroom but to the outside world.

Some of the other recurring topics of discussion that warranted consideration but were not included are the role of the teacher, special needs assistants, assessment for learning and job satisfaction. They all appeared to follow the same progression as resources in education and student behaviour from surface knowledge to a deeper questioning within the discourse over the ten week period. The findings are that the early conversations showed characteristics of surface learning accepting ideas without questioning and treating the discourse as unrelated bits of knowledge. In latter weeks, there was some evidence of deeper learning evidenced

by the students being more actively interested in the discourse, taking control at the top of the room, questioning and arguing amicably among themselves to reach consensus. This was reflected by the depth of the relationships and the trust and honesty that appeared to develop within the group, with some interactions revealing quite personal disclosures, particularly in the latter weeks of the semester.

Multiple modes of communication as outlined in the literature are evident in the contributions as seen in Section 1. Interaction in the classroom focused on ‘tutor to student’ and ‘student to student’. While extracts from the early weeks are brief, there appeared to be at all times a willingness to contribute by the group, with some members being more vocal than others, a factor recognised in the literature review. All but three of the students are represented in the second topic on student behaviour. M2 is absent that day and M3 and F8 did not offer any verbal contributions on this particular topic.

The verbal interaction or talk between the students in terms of language was simple, informal and respectful. The tones used were supportive of one another and the conversation flowed naturally quite a lot of the time. Support verbally was generally indicated by ‘yeah’ ( Line 9, 24, 115, 125) and when there was a slowing of momentum or a long period off topic, as tutor I used probing questions to re-engage attention and momentum, as evidenced in the above extracts (Line 65,81). The student comments overlapped at times and when this happened, the students queued their contributions naturally, allowing one another in a respectful but informal way to interact and offer their contribution.

Non-verbal modes of engagement were clearly evident by head movements particularly nodding in agreement; other non-verbal visual indicators included smiling agreement and eye contact as discussed previously. Lack of engagement

by F8 was indicated by lack of eye contact, head down and closed posture, shoulders down and arms crossed. This contrasts to M2 who did not offer any oral contribution but listened to the discussion with interest, using eye contact and facial expression to show active engagement.

The group space was a traditional classroom setting as stated previously with the students using this space quite normally. All sat facing forward, looking relaxed and at ease. As tutor and observer for the first six weeks I sat closer to them with no physical obstacles like the teacher's desk between us: rather, I sat on a chair directly in front of the closest student making sure that for most of the discussion I had direct eye contact with the entire group. In later weeks I sat at the back of the room out of sight, taking a more peripheral role, encouraging the students to enact the TCL environment independently.

What became more apparent from the utterances above, over the period of weeks, is that my voice towards the end of the semester did not facilitate every comment or probe with the same frequency. The students were now interacting independently of me and doing their own probing and questioning. This gave some indication of the active independent nature of the TCL process and illustrated that time and a supportive, non-judgemental intuitive tutor style and ethos may be required to foster enactment of this learning environment.



## **Section 1: Reflective Diary Extract**

These are my reflections on how the group developed over the 10 week period.

**Week 2:** I was ‘quite frustrated’ and I wanted ‘more’ in terms of deeper contribution from the students, and then I realised on reflection, that while I was ready for the collaborative learning environment, they needed time to learn to trust each other and to get to know each other as individuals. My concluding thought at the end of week two was: *‘I have to give it time!!!! I have to be patient...not one of my stronger traits’*.

**Week 4:** I observed at the end of week 4 a change in the group and a more relaxed atmosphere in the room. I saw the group developing and growing closer. I recognised that the group now have a ‘greater awareness of each other’s situations in context’, and I felt that this helped them open up, since they were very honest and even discussed personal concerns when contributing to topic.

**Week 5:** I noted after the midterm break that the atmosphere in the room was different; I describe it in my diary as ‘a sense of relaxation, of ease, of just being... the general sense of rest and energy was palpable in the room’. There was a real sense of sharing and group respect, and the topic that day reflected this, in that the students spoke for nearly two hours, combining thoughts, ideas, knowledge and experience, even relating theory to practice. I wrote that ‘I felt that this week was the turning point in terms of content, interaction and group cohesion’. I noted new dimensions in their behavior, attitude and discussion. The fact that the topic AfL was ‘the first real topic’ by this I meant I had absolutely no in-put nor any idea that they even knew what AfL was. This I deemed an important moment for two reasons, firstly that they brought something completely independent into the classroom and secondly it highlighted for me that indeed as tutors we can limit our students learning as this is not something I would have included in the discussions. In terms of topic, I appreciated that the diversity of

the group, teaching in differing schools, enriched the depth of the discussion, and challenged group members ‘to walk in someone else’s shoes’.

**Week 9:** There were far fewer changes in the last four weeks, the main one being that the students then had a far greater control of the session, taking over the whiteboard and managing the discussion as evidenced in the extracts. I discreetly repositioned myself at the back of the room, as I was no longer pivotal to, nor needed in the discussion. This did not make me redundant in the TCL process, rather, it allowed me observe it in action from a different perspective. I was still physically and mentally involved in the process, for example making the odd comment, just a less obvious presence at the rear of the room. I did note that, at times, the students would look back to see my reaction, smile to make me feel included or even ask my opinion about the topic under review, but at this stage I was not a vital part of the TCL process: instead I was a partner in the environment with the students.

Over the 10 week period, two other strong themes emerged from the collaborative process.

**Topic structure:** Topics were vague, open-ended, un-structured and often cyclical, as evidenced in Appendix 4. These topics suited the TCL environment allowing the students to explore, listen, question and reiteratively engage with each other’s ideas.

**Topic designation:** The students decided what they wanted to talk about for the next day. It often emerged from the finishing point of the preceding day’s discussion or some interesting comment made during the interactions that the

group decided they wanted to return to. This student-led approach is a key element of a TCL environment.

### **Section 1: Summary**

This section explored two dominant topics of conversation over the ten weeks, resources in education and student behaviour, aiming to allow someone not present in the TCL classroom a glimpse at what happened in terms of student discussion, group cohesion and the possible development of a TCL process in a tutor-enabled classroom environment. The student voices were heard and their thoughts and ideas expressed in their own words. Some topics and sub-topics were imposed (Appendix 4), on their words, to demonstrate the progression and reiteration of their ideas during the TCL process. The freedom of the students to express their thoughts and drive their own learning environment appeared an important element, reflected by their control of the weekly topic and subsequent discussion. In this section my reflective diary also exposed my thoughts and feelings over the semester, revealing some concerns regarding the enactment of TCL. The next section focuses on my role in the TCL environment.

### 4.3 Section 2: The Tutor

#### Tutor Context

My role as tutor is recognised as one of the four key elements in this research study, along with student, topic and interaction. As programme leader and class tutor on this course from inception, and as outlined in the literature review and methodology chapter, I see myself as an insider in this environment, and I am aware of the pitfalls of subjectivity and so the representativeness of this research is based on my experiences and recall of these events.

The recordings were examined from three differing perspectives: *verbal*, *non-verbal* and *other factors* that the literature suggests are crucial in relation to the *ethos of the TCL environment*. I played the recordings repeatedly, each time searching for a different focus.

Initially I transcribed the students' words and read them like a book to get a feeling for their ideas, who spoke, who did not speak, the order they spoke in and simply what they spoke about. It was difficult over a period of ten weeks to remember each week's discussion so transcribing and re-reading was to familiarise myself with the topics.

Then I played the recordings multiple times, listening to how they spoke and making notes on intonation, smiles, gestures and laughter among others, the images and words helping to contextualize a representation of it (Pink, 2007) . Lastly I replayed the recordings, focusing on the non-verbal indicators and then once more to get a holistic overview of the entire process. This was done iteratively until I could no longer add anything new to the findings. It was an extremely time-consuming process but enabled me to re-submerge myself in the setting, allowing me an opportunity to compare my initial reactions from my

reflective diary to this more measured approach. However it was still only a partial representation of what happened, a snapshot in time of what I thought I saw.

### **Reflective Diary Extract**

These are my reflections on my role particularly at the beginning of the process.

**Week 1:** In the early weeks I reflected on my disquiet, questioning what I was doing and why. I had lectured most of these students over the past three years in my role as lecturer and now I wanted something completely different from them. I was nervous going into class that first day to ask for permission, nervous that introducing a camera in the room would skew the discussions and, more importantly, I felt that huge weight of ethical research and responsibility to my students sitting on my shoulders.

How much should I say in terms of *honesty and openness*? As I opened the classroom door with the camera on my shoulder, one student commented ‘here she comes with her camera, haven’t seen it since first year’. All my first year students are familiar with the camera as it is an intrinsic part of my first year module. I smiled and that gave me my opening to discuss the research, I explained that ‘Betsy’ (the camera), as she is known was to help my ‘geriatric memory’, and that in order for me to enjoy the discussions in the coming weeks, I didn’t want to have to take notes all the time. I explained that I was looking at group work in the H.E. classroom, gave them consent forms and a study overview information sheet (Appendix 1,2,3) and gave them a week to decide. I reassured them that if they didn’t want to take part it wasn’t a problem. I offered to take questions and did so for the next hour. I encouraged them to take the forms home and read them and think about it. The following day I went into class and all the completed consent forms were on my desk. I feel in retrospect that what I said and

the way I gave them the information verbally and answered all the questions with honesty, was really important.

In line with my arguments in the methodology, particularly as an insider researcher and their tutor, approaching your participants with honesty and openness is such an important foundation of the research process, a cornerstone not just for successful data collection but for the integrity of the entire research process.

### **Verbal Evidence**

Verbally it was evident immediately from the recordings that my tone as tutor was informal in this TCL classroom setting. Listening to the recordings my tone was warm, supportive, encouraging, friendly and at times in the latter weeks, also teasing, particularly as I grew to know the group dynamic. At times, it wasn't what was said, but how it was said and how I reacted to the contributions. My laughter rang out in every session and there was a sense of my complete engagement emotionally and verbally in the TCL process.

*Positive reinforcement* is very important in the TCL environment and evident from my continuously encouraging tone and supportive positive language. I would regularly comment 'Very good, very good' (Line 6) or a simple 'interesting comment, go on' (Line 2) to encourage a particular student to further contribute and develop their ideas.

*Repetitive questioning*, as shown in section one of this chapter on student behaviour was also a technique that emerged as an important verbal theme. This was demonstrated when the student commented on students being bold (Line 91 to 95) and I posed it as a question echoing the students sentiment 'They're so

bold?’ On that particular day the students’ discussion focused on ‘bold students’. After some time of intent listening, I realised that the contributions had finished. In trying to encourage a consensus from the group, I summed up their ideas of bold classifying them using their own words and contributions as ‘sneaky bold, aggressive bold and bully bold’, and amid much laughter from the group queried if they agreed with the summation of the discussion. My questioning was short, simple and direct, e.g. ‘Why’, ‘What was different?’ (Line 96) or ‘your other option would be to...’ leaving it *open-ended*. Sometimes questions would be *challenging* ‘How are you going to manage when you have to do preparation as well?’ I facilitated collaborative dialogue by verbally inviting contributions while generally remaining *neutral in* my responses but *supportive in* my role as facilitator.

*Probing* is evident in how the contributions are facilitated as seen in section one. Another example was when F6 commented on a particular student in her school that was left to her own devices by the other teachers. I realised that this issue might lead to an interesting discussion and directly asked the group, ‘How does anyone else feel about that, are you all hearing this conversation?’ This direct probe elicited an entire discussion from the group. I would often echo (Line 54, 61) a phrase or particular word that the student said at the end of their contribution in order to encourage the other students to continue contributing. For example when F7 ended her sentence on the concept of well-being, there was a pause in the conversation, allowing me to simply ask ‘Well-being of whom?’ I then waited for the student to expand on her comment, after which another student added her ideas and the conversation expanded and continued.

Everyone was encouraged to contribute. While not identifying anyone in particular, I would occasionally in the early weeks simply comment ‘boys, you’re very quiet on this topic’ not picking one out but encouraging them to speak. In later weeks I encouraged quieter students who did not contribute as much as

others, for example by simply asking ‘What do you think of that?’ Because I spoke only to question and probe much of the time, I often sounded like ‘a broken record’, and if the students’ contributions were removed, all is left is a series of repetitive questions and reassuring utterances. My contribution to content overall was minimal, and, in total I spoke for less than a third of each session (Section 1) and that was only to question, probe or sometimes reassure.

As tutor, I found it took time to build the TCL process verbally, initially probing, questioning and encouraging, speaking only to enable the students to find a topic, followed by concentrated listening to enable them to build the topic and reiteration of their ideas back to them, to help them develop and expand the topic. *Concentrated listening and re-iteration* of ideas by verbal echoing and probing, supported by the non-verbal modes of communication, particularly posture and gesture are two key themes evident during the 10 weeks particularly from my perspective.

### **Non-verbal Evidence**

*Body Language* one of the recognised forms of multimodal communication (Norris, 2004) emerged as a clear theme and an important contributor to the non-verbal evidence. Subtle sub-themes including eye contact, posture, facial expression, gestures and attentive listening emerged and remained consistent throughout the 10 weeks.

At the beginning of the semester I consciously positioned myself at the front of the group, on a chair, making a deliberate effort to maintain *eye contact* with all members of the class. Being able to see, and be seen by, all class members allowed me to conduct the conversations with a simple smile, a confirming nod or a simple gesture. This eye contact enabled me to scan the group with my eyes, checking for understanding and silently inviting contributions.



My *posture* was relaxed sitting with legs crossed and foot swaying. It was apparent from the recordings that I nodded regularly, smiled and laughed (*facial expression*) at times and *listened attentively* e.g. sat forward at times consciously straining to hear every word. My *hand gestures* were expressive, moving, pointing and clapping at times, to encourage particular contributions, or sometimes to silence an eager contributor until the current speaker was finished.

### **Other Factors contributing to the Ethos of TCL**

Other factors that emerged from the recordings could be deemed to be non-verbal. However, I suggest that those discussed below including physical energy, level of engagement, thinking space and timeliness are better designated to a separate category and may be essential characteristics of the TCL ethos.

On viewing the recordings it came as a total surprise the amount of *physical energy* I expended in conducting this learning environment. From the recordings, it is obvious that I am completely engaged with the process at all times (*timeliness*) and that the *level of engagement* verbally and non-verbally is visually apparent.

My *relationship* with the group was evident, though hard to describe. To reiterate an earlier point, it was not what was said, but sometimes just the way it was said. The banter, the sense of ease I displayed may have played an important role in the relationship that developed with the group. There are implications from the non-interventional role of the tutor in this environment and these are explored in relation to power dynamics in the discussion chapter. While this true collaborative setting is physically situated in a traditional classroom, this traditional setting appears not to have deterred or impeded the true collaborative process.

The presence of *silence* is evident at times, more so in the latter weeks, and it is used as *thinking space* to allow the student teachers to ponder on their discussion. It appears to be a reflective silence, and I often used it to give them time to think, probe further, or sum up a point or topic.

## Section 2: Summary

**Table 7: Tutor Themes**

Source	Themes Identified
<b>Reflective Diary</b>	Honesty and Openness in Communication Importance of facial expression
<b>Verbal Data</b>	Informal Tone (warm, supportive , friendly, encouraging) Positive Reinforcement Repetitive Questioning (open-ended, challenging) Probing Echoing Seeking Contributions Re-iteration (of ideas)
<b>Non-verbal</b>	Body Language (nodding, hand gestures, pointing, clapping) Direct eye contact (with all students) Facial expression (smiling ) Posture (relaxed, legs crossed, sitting forward, attentive) Concentrated Listening (attentive listening)
<b>Other Factors</b> <b>(may be associated with TCL Ethos)</b>	Physical Energy (apparent in tutor engagement) Timeliness (level of engagement) Tutor relationship with the group Silence (the presence of silence at times) Thinking space (time to ponder an idea)

#### 4.4 Section 3: The Student

##### Student Context

Contextually the participants all spoke English as their first language, came through the traditional route to third level education, and were all white Irish nationals. Two of the females were mature students in their early thirties and one of the male students was also termed a mature student, though he was only in his early twenties. They all had academically similar grades with no one outstanding student in the group. As I outlined earlier, it is also important to note that this module was Pass/Fail, there was no exam and the students had to submit an individual learning logs at the end of semester.

Themes that emerged immediately were student **willingness to contribute** and **student engagement**. Later themes that became evident were **relationships, humour, focused listening, cueing and stillness**.

##### Verbal Evidence

Verbally the recordings showed sub-themes including *diversity of thought, independent voice, creativity in thinking and reciprocity through listening and multiple contributions* as discussed in the literature. *Attendance* is a crucial factor in this learning environment; those students not in attendance could not contribute at all. This may seem an obvious point but, unlike the more traditional lecture format, attendance is a basic requirement in the TCL environment. The most surprising thing apparent from the recordings was the amount of time the students spoke, approximately 70%, with the tutor taking a mere 30%. The discussions flowed quite naturally, some days better than others depending on the energy levels of the group. It was quite apparent from the discussion the week before midterm break that the students needed the time off, both from college and the placement teaching role, admitting they were tired.

The contributions showed the students' diversity of thought and independent thinking as shown in Section One. Another example, an incident in the staffroom where the principal communicated something to the entire staff at break time demonstrated this. The initial feeling in the group was that the public announcement by the principal was inappropriate. M4 thought it should have been said at a 'staff meeting', with F8 adding how difficult it is to get 'all the teachers together', while F5 considered it important as a health and safety issue. F7 felt it important that all the staff know and added that what is communicated 'in the staff room should stay in the staffroom'. During the contributions, the differing and independent ideas of group members were contemplated, and by the end of this scenario the group now felt that this might have been the only option for the principal. What appeared on the surface to be seemingly inappropriate, revealed through probing and group discussion uncovered deeper issues of student safety and staff support for that student, and caused the group to reassess their previous viewpoint, now agreeing it probably was the best course of action available to the principal in this context. This type of discussion underpins the possibilities of the TCL environment, for students who are willing not just to engage, but to enact this learning environment.

Another conversation on students being 'more street wise today' saw the students listen to each other's contributions, queue patiently as they all had something to say, and several of the students made multiple contributions on this topic, adding to their own previous comments. M4 started the conversation saying 'they're more street wise', F5 agreed 'definitely a lot more street wise' with F4 adding 'but it actually is the people you hang around with'. This discussion began at surface level with a simple statement from M4, with F5 agreeing. F8 showed understanding by giving an example from her context and extended it by explaining her role as a teacher in having to 'statement it for the principal'.

Interestingly, I observed at this point that one of the students F3, who was actually sitting at the front that day, disengaged herself from the conversation using body language and particularly posture, by facing forward, unlike the rest of the group who continued looking and glancing towards the student explaining the incident, who was sitting in the centre of the group. She effectively turned her back on her while the other students continued, listening intently. This was the start of F3 engaging only when she wanted to. She also at this time moved from the front and middle of the room to the back, where she sat on her own. Her deliberate repositioning to the back of the room said more than any words could. It was noticed and commented on by members of the group, who felt she was not making any effort to contribute to their group learning. The behaviour of this non-collaborative student is considered further in my reflective diary and later in the discussion chapter, reflecting on how the qualities of TCL i.e. openness and honesty relate to a disengaged member of the group and the group itself.

A conversation on motivation resulted in the students debating types of motivation and the importance for them of extrinsic and intrinsic motivators. The practice/theory divide was bridged, as the conversation developed through the honesty and personal contributions of several of the group, each following and reciprocating what others in the group said. Discussing her role at the primary school, F5 had problems with her lack of responsibility and stated honestly with emotion, 'I think I need to have responsibility and a certain amount of stress to keep me motivated'. Another female teacher said that she felt like 'three split personalities' part-time worker, student and teacher, while another female teacher in a moment of complete honesty both with the tutor and the group said she had wanted to teach for the holidays but now realised 'no money could pay you to teach'. Examples of other personal contributions include F6 who was honest enough to share her experience and feelings when an SNA undermined her in front of the whole class. Not only did she talk about the incident but how she felt during and after it. M3 who is a quiet mature student spoke very openly about 'always feeling a little awkward' when dealing with a student in his class with a

learning disability. This level of personal honesty was ongoing throughout the sessions and indicated the importance of the relationships that formed within the group throughout the TCL process. It also suggested some evidence that these deepening relationships enabled this level of openness and honesty in the verbal contributions, a seemingly important element of the TCL ethos.

### **Non-verbal Evidence**

Viewing the recordings holistically, I noted the lack of shuffling, movement, bag checking and incidental noise that is the normal background cacophony in a classroom. On noting this, I also noticed at times that the group sat quite still: at one point I thought the video had ‘hung’ until a student moved to contribute. The non-verbal modes of interaction, especially the body language of the students, were different in this environment. They appeared still, *unusually still* and relaxed, but obviously *focused as they contributed* to the discussion. I then explored other body language to check whether the relaxed body language was in fact boredom or whether other indicators proved otherwise. Two subthemes emerged: *attentive and non-attentive student body language*. The attentive students, while utterly relaxed in their chairs, smiled, nodded heads, laughed and maintained eye contact for much of the time. The non-attentive, while also looking relaxed were more slouched in their pose, often playing with a pen or twirling hair etc. and did not maintain eye contact for much of the time. The eyes and angle of the head appeared to be key indicators of engagement in the environment and the process.

The management of multiple contributions in such an informal environment was an initial worry and I felt it would be almost impossible to manage 12 contributions coming from all angles with differing viewpoints. The recordings showed, that the students often cued their comments, one student’s words prompting another to offer alternative thoughts and ideas. They also queued informally for their turn to speak, participating in a timely considerate manner,

generally waiting for each other to finish the contribution. In the early weeks, they allowed me to be a conductor of the process, aiding the natural ebb and flow of conversation. In the latter weeks my role changed to one of an equal partner in the TCL environment.

### **Other Factors relating to the Ethos of TCL**

There were other factors difficult to define, intangible in their existence but evident in the atmosphere of the room. *Trust and support* within the group and for the group, grew over the weeks. Similarly, discontent and impatience were also evident at times and personality clashes at times became apparent; they were rare but they were there. Examples observed included eyes rolled to heaven when a particular person said something and a snappy tone one particular day between two members of the group. Observation generally indicated good student to student relationships and the student to tutor relationship also appeared comfortable and relaxed. Overall, *openness and personal honesty* by both males and females was really apparent in this small group. These intangible elements are possible evidence of the ethos or culture that develops in a TCL environment.

### **Reflective Diary Extracts**

These are my reflections on the students during the process.

In the early weeks I reflected on my frustration in terms of *student relationships*. It took me a while to realise that the group needed time to get to know each other. While they had been on the same course together for the last three years, they were always in a large group setting and did not really know one another. It became apparent that the small group approach was a totally different environment for these students but in week five I saw the turn in the relationships and state 'the group is knitting together nicely': the relief in my diary entry is palpable.



I did feel at times that I was a conductor of an orchestra with no score. Some days, I could see and feel the creativity of the group, by the energy and emotion they brought to the discussion with their *contributions*. There were often times when the student's lack of interest and energy frustrated me. In week six, everyone wanted to contribute, some were quite eloquent while others had great ideas but found it difficult to express them. As a conversation it was fantastic, but I noted in my diary in terms of equal contribution, that had the class size been any bigger, and there were two missing that day (which means I only had ten), it would have been impossible to let everyone have an equal say. I also state quite emphatically that 'I was quite surprised at the depth of feeling that emerged from the group as a whole' (*verbal emotion in engagement*).

This was the first time *group size* for the student became a discussion point in my diary. One student spoke about peer influences and how she was more willing to contribute in a small group environment because it felt safe and the others agreed with her (*safe environment*). From a student perspective, I noted with some chagrin that, up to that, I had not thought of how students feel in the learning environments they experience in H.E., and in particular what I was asking of them; it was completely different to their normal *learning environment* in this H.E. setting.

I did note particularly in my diary that 'as the students voiced their ideas, their thoughts crystallised and this crystallisation of thought allowed newer ideas to evolve'. This was supported by F4 who, on handing up her log book, said that she found it much harder to write down her ideas but articulating them was so much easier.

However the non-collaborative student was always in my thoughts. What could I do to help the situation as tutor? This non-collaborative student continued with this disengaged behavior, distancing herself both from myself and her cohort. On investigation, her behaviour in class continued outside, not having coffee with the group, not engaging in group work as requested, much to the frustration of both I and the cohort, some of whom spoke to me privately about it. I decided to speak to her privately and the students reply was 'I'm in...I contribute at times...that is what we agreed...what more do you want?', I realised that there was little I could do as the student was fulfilling the basic requirements for passing the module, but not entering into the spirit or ethos of the TCL environment. It was at this moment in time I truly comprehended the importance of student 'buy-in' in the TCL environment.

I did continue to encourage the student to contribute, smiled at her and made her feel as comfortable as possible when in the classroom. The others in the group eventually accepted that she wanted to be outside the group and while they remained friendly and open in class, they respected her decision. Dealing with a non-collaborative student needs further consideration, particularly in terms of what is considered acceptable behaviour in a TCL environment.

### Section 3: Summary

**Table 8: Student Themes**

Source	Themes Identified
<b>Reflective Diary</b>	<p>Student Relationships</p> <p>Verbal Emotions (brought to the discussion)</p> <p>Group Size ( allowed equal contributions)</p> <p>Safe Environment</p> <p>Different to their normal learning environment</p>
<b>Verbal</b>	<p>Willingness to Contribute (contribution time 70%)</p> <p>Multiple Contributions (reciprocity and listening)</p> <p>Student engagement (with the process)</p> <p>Independent thinking (independent voice, creativity, diversity of thought)</p>
<b>Non-Verbal</b>	<p>Lack of Background Noise (unusually still room)</p> <p>Attentive Body Language(eye contact, smiled, nodded, focused listening, angle of the head)</p> <p>Non-Attentive (slouched , little eye contact)</p> <p>Cueing (prompts from previous contributors )</p>
<b>Other Factors</b>  <b>(Relating to TCL ethos)</b>	<p>Trust and Support</p> <p>Discontent and Impatience</p> <p>Openness and Personal Honesty</p> <p>Humour</p>

#### **4.5 Section 4: Interaction**

Interaction can be broken down into multiple modes of communication encompassing verbal and non-verbal communication. These verbal, including intonation, laughter and non-verbal modes including; posture, gaze, head movements, smiles and proxemics, were discussed in detail in the literature and methodology chapters earlier (Jewitt, 2009; Norris, 2004). These have been identified as important themes in the levels of interaction in both the student and tutor communications in the TCL environment.

Other factors that impact the interaction in this setting are group size, group composition, tutor and student roles, the physical environment and the actual utterances. This section will examine the interaction holistically, adding to the previous data from both my reflective diary and the recordings. There may be some repetition at times due to the interrelatedness of the sections but I believe it to be necessary in order to appreciate the richness of the data.

#### **Reflective Diary Data**

These are my reflections on how we agreed to interact.

I remember my conversation regarding group discussion. I told them that ‘in this group there is no such thing as a wrong answer’, ‘everybody has an equal say’ and as adults ‘we can agree to disagree’. I outlined basic rules of engagement and reiterated that this was not a traditional lecture, as I had done in the past, but an open discussion forum, driven by their ideas and experiences, for them to contribute, discuss and debate their ideas and learning, in a *safe environment*. I also clearly stated ‘what’s said in this room stays in this room’. I ponder the sense of responsibility I feel by placing them in a learning environment they are not used to.

I wrote in week five:

*'exposing your innermost thoughts and ideas and discussing your mistakes is a huge risk for these students, something that will come with time. In order to get it, I am going to have to give it, this is an issue of trust, of relationship building, of changing student behaviour from their traditional classroom setting to this new small personal and quite exposed safe setting'*

I wrote immediately afterwards:

*'There are contradictions in this sentence but they need to stay, they are core to the success of this new learning process/environment for these students'*

On reflection what I was trying to express, was that the TCL environment should be a safe learning space if the facilitator and group members embraced the ethos and qualities of this learning environment and enacted it together. However that responsibility lies with both the facilitator and the students, if this enactment does not happen, then the students may be 'exposed' and not 'safe' at all.

**Week 5** I noted a more relaxed atmosphere in the room with the students referring to each other's experiences and wrote in regard to their interactions that 'they tend to wander off the point and a little steering is necessary at times'. I observed that 'the quiet ones need to be encouraged to share, but once they start interacting, are often inciting critical questioning'. At the end of class when the students were handing up draft learning logs, a student commented that she learnt so much from participating in the class discussion, but found it more difficult to write it down...articulating it, she said 'she found much easier'. As the weeks continued I was surprised at the tone and thoughtfulness of the interactions. I noted that

discussions were often cyclical with students reverting or touching on previous comments as seen in Section 1:

*'they did refer to each other, defer to each other and engage with one another often vying with each other to get their point across'*

I reflected that maybe the diversity of the group in terms of gender, age and different host schools added to the interaction and the discussion.

One of the final entries in my diary in the latter weeks summed up the why I thought at that time the interaction was so important. I wrote;

*'The knowledge constructed by the group was done in building blocks, often progressing, to regressing, to changing of minds adding layers and depth to the conversations. It wasn't deliberate in its approach and what started as a conversation became deeper learning as it was personalised and examined by members of the group through their interactions with each other and me'.*

### **The Recordings**

The recordings were once again reviewed by me, this time to get a feel for how the interaction happened. The analysis indicated that the interaction themes (Table 11), *pattern, pace and tone* were the first indicators of how it happened. As tutor I always started the conversation with versions of 'Right, come on and talk to me', 'Any interesting dilemmas in school this week?' This *informal opening tone* was reflected the whole way through the interactions in each session.

On analysis, the lack of *structure* in the conversation was very obvious. Things emerged minute by minute, with the students engaged in a *reciprocal conversation* dominated by themselves, with broad participation from most members of the group. The interaction was open and not constrained by me or by assigned roles for the participants, nor by a formal curriculum. The pattern of *participation* was quite even, with all the students contributing at times. As stated earlier some students had stronger voices, F7 and M4 both being quite articulate and outgoing, while others contributed less, M2 in particular, but what he said was always worth noting. They accepted each other's contributions and discussed them amicably, elaborated on ideas with no outright rejection at any time as displayed in Section 1. This informal respectful response allowed the group to communicate effectively enabling *group negotiation* on a certain topic and *collective decision making* at times. F3 the non-collaborative student, discussed previously, sat and was present for much of the time, but did not interact nor appear interested in the collective decision-making process, despite my attempts and her classmates' attempts to include her. However she did not hinder the process either; she sat passively in the environment, her presence neither positive nor negative. From my perspective as facilitator, she was an outlier in the room as the rest of the group actively enacted the TCL environment.

Initially on viewing the recordings, the researcher was aware of how much the conversation was dominated by the students; however it was noted that one or two students said little and the researcher wondered 'were the quiet students engaged?' Yet, just because they were not talking did not mean that they were not hearing the exchange of ideas, just that they were slower to verbally contribute. On iterative viewings, the multiple non-verbal modes of interaction helped me decipher using body language, posture, eye contact, gesture, head movements and other non-verbal indicators, whether I thought these students were actively engaged in the TCL process, as examined in the discussion. This is important in a cultural context where we value extroversion and verbal ability, but has implications for multi-cultural TCL; other cultures, as well as individuals, who do

not value those personality characteristics. Yet as I have shown participation and collaboration can be shown in other ways.

#### Section 4: Summary

**Table 9: Interaction Themes**

Source	Themes Identified
<b>Reflective Diary</b>	Changing Student Behaviour (Learning Culture)  Trust  Relationship Building  Safe Setting (Learning environment)  Importance of Articulation (of ideas)
<b>The Recordings</b>	Pattern of Interaction  Pace of Interaction  Tone in the Interactions  Informal Opening Tone (each week)  Lack of Topic Structure (emerged minute by minute)  Participation Pattern (quite even)  Reciprocal Conversation  Respect (allowed group negotiation, collective decisions)

The purpose of this section was to give the reader an insight into the overall place of interaction in the practice and enactment of TCL. The analysis of the reflective diary revealed themes that appeared to link more strongly to the ethos of the TCL



environment encompassing ideas of safe learning spaces, student trust, relationships and the importance of enacting TCL within a specific learning environment. These themes aligned with elements of learning culture discussed earlier.

The analysis of the video diaries showed the levels of interaction, particularly the importance of the inter-dependence of elements; student, tutor and topic, linked through the multiple modes of interaction (Norris, 2004). The depth and interrelatedness of the tutor and student relationship was communicated and became more apparent through verbal and non-verbal interactions in the TCL environment. The proportionate participation (Jaques, 2000) of group members, apart from the non-collaborative student, appeared to support the actively engaged ethos of a TCL environment.

#### **4.6 Section 5: Student Comments**

What has been discussed to date has been one representation, from my perspective as facilitator, of this learning environment. This section records the student comments on the TCL environment from two different settings, an informal unplanned student-driven discussion in week six where the students asked me to turn off the camera, and a planned focus group in week 12.

##### **Week 6 Student Discussion**

A deviation in process in Week 6 resulted in the camera being turned off as the students wanted a confidential chat about a programme module with which they had some concerns. The resulting conversation became an open comparison of my collaborative learning environment versus another. I listened both as programme leader, tutor and researcher. I did ask if I could make notes on their comments as suggestions for changing the module next year. What follows is from memory and furiously scribbled notes taken during class while listening and facilitating these concerns. Consequently I cannot attribute all specific comments to individual students and where I can, I have done so. This session without the camera gave me a far greater appreciation of the important role the camera plays in this study.

##### **Reflective Diary Extract**

Following the grievance session, the issues that emerged were in relation to class size, relevancy, interest, trust, and articulation of ideas, my role and the role of others. The student teachers wanted to discuss another *tutor's practice, learning environment* and *module materials*. What was not apparent to me at the outset was that the group were in agreement and collaboratively organised for this discussion. I listened as they outlined, another tutor's practice, commenting on what was being covered (curriculum) and how it was being covered (method) and the lack of relevance and tailoring to their learning requirements. Delivery, assessment methods, materials and classroom management as well as feedback issues and

relevance were queried both from their perspective as students, and trainee teachers. Concerns emerged in relation to *learning environments*, including *class size, relevancy, interest, trust, the benefits of verbally expressing ideas, the difficulties of writing those same ideas, their role as students and how the differing role of tutors in the classroom can impact their learning experience*. They had organised their concerns into three issues.

**Issue 1:** The students didn't think the other module was specific enough for their needs. They liked the fact they set the topic in my session and had 'time to talk to think it out'. The group stated that expressing their ideas verbally really helped their understanding and made them question their views and beliefs. M4, who is quite articulate, stated that 'he could say what he really meant when verbalizing it but found it to so hard to get that across on paper, and that, by talking about it in the group, was able to see, hear and remember other people's ideas, which impacted on his own, and this often reminded him of something else, or added another dimension to what he thought or said'.

**Issue 2:** Relevance was now very important to them, and they felt the other module was not tailored to their placement. The group felt that they did not get anything out of it, in contrast to our 'interesting conversations' and were in agreement that they did now enjoy being active, outspoken participants, 'once they got used to it'. At the time I noted their use of the word 'now' and the inference that they had to get used to being vocal.

**Issue 3:** This was not specific; it was a lot of little things. This is week six and they commented that they now trust each other and this was important to them and that they now functioned as a group and they liked to function as a group. It could only happen they felt because the class size was so small (12) and using their own words 'and we're all in the same boat'. They added that they felt 'safe' in my

sessions and their words ‘felt safe telling me (the tutor) anything’. They said they knew I wouldn’t make a fool of them, and they remembered what I had said at the beginning of the year, that there was no such thing as a wrong answer in this room, that nothing would shock me and that I was there to support and help them, and as a group commented directly on this as being the way it should be. I was surprised that they thought this important, and I did question silently to myself afterwards ‘Should they not feel safe and supported in every class’ or ‘Do they not feel safe and supported in every class’. In retrospect that was something I should have probed, but I was so busy listening and taking notes at the time that the moment passed.

The group surprised me in that this was a truly collaborative conversation. The students told me that they had had a deep discussion by themselves on this problem (no tutor present) prior to discussing it with me. The idea of TCL within this group of students was developing: without my presence, they had met, discussed, reached a consensus and decided to approach me as coordinator to express their views on the situation. Their arguments and points were well thought out, delivered in a timely and calm manner with a planned outcome: they were aware that it was too late at week 6 to change it this year but felt that it should be addressed for next year’s cohort.

The conversation with the students was surprising on two levels; firstly the TCL component discussed above and secondly, a conversation rich with data that provided me with a comparison of two learning environments, mine and the other more traditional module under discussion. Comments made by the group made me reflect further on the role of tutors discussed in this chapter and subsequently in the discussion. In my researcher role I was so sorry I did not have the camera on to record all that was said, but as the programme leader (my other role), I had turned it off as requested! This was the first time my dual roles were in conflict. The researcher in me wanted to record this, while my coordinator role had to

respect the confidentiality and privacy of the students in discussing such a sensitive situation.

On reflection and in terms of analysis I was pleased that they found the TCL environment, a safe learning space. The realisation that the ground rules (Isaac, 2012) set at the start was important to them in a learning context was significant. However for me as researcher, the most significant thing was not that they had had a collaborative session, but rather that they had reached not only a consensus, but had a planned outcome for next year's cohort. This suggested a deeper level of learning (McCune, 2003) where these students had engaged not only with the current curriculum but with ideas for future curriculum.

### **The Focus Group**

At the end of the semester I asked the group if they would discuss and give me feedback on what they actually thought of this group learning environment. A constructivist approach acknowledges two key points about how to represent other people's perspectives. First, my presentation of students' views about TCL can only be, my interpretation of their perspective at a particular moment in time. Second, the insider nature of my role may have affected their perspective in that they might be reluctant to acknowledge problems or drawbacks. However, the content and tone of what was said are borne out by the general climate of the sessions and video diaries. I asked for complete honesty, explaining that if I knew their honest thoughts, I could improve it for next year's group. They all agreed and on the day of the focus group I asked the group a simple direct question:

*'How did you find the group learning this semester in my class as opposed to the traditional lecture style you are used to?'*

The ideas expressed by the group were many, primarily due to the fact, that ten weeks later they were not shy about contributing. I have summarised them into tables and grouped them into key areas including the TCL classroom, the collaborative environment, the tutor's role, personal learning, attendance, course topics and collaborative interaction. I appreciate that nearly all the comments were positive and I did ask what they didn't like and they came up with one or two things when pressed, but all of them, both the quiet and the outspoken students seemed to enjoy this learning environment.

### **Students Comments taken from the Focus Group**

<b>Table 10: Students' Comments on the TCL Classroom</b>
'Less structured, more enjoyable'
'Better... didn't dread coming to class'
'Something you could nearly look forward to'
'There is some support'
'Relaxed, informal, no restrictions, could look forward to it'
'Compared to any of the other classrooms, you take it home (the notes) and study it, whereas we had a conversation about a topic, and then went home and thought about it'
'You get to learn about yourself as well, more than when you are in a normal situation with a lecturer'

<b>Table 11: Students' Comments on the True Collaborative Environment</b>
The group was a great place to vent'
'Sometimes when you are not sure...the group reaffirms what you think'
'We built a support network'
'Comfortable with each other'
'Better relationship in the small group'
The relationship between the class, in a normal class you can go four years without talking to one of them and not know them at all'
'There was group learning but also personal learning it was a good combination'
'You wouldn't really think about these things by yourself, until you come in and talk and then ideas come into your head'
'And then you talk about it when you go home as well, it would be something that 'would be on your mind and you'd want someone else's opinion on it...I spoke to my mother about it'
'We took it outside the class even to the gallery (the college restaurant)'

<b>Table 12: Students' Comments on Personal Learning</b>	
'Learn more about yourself'	'Took from it what you wanted'
'We probably learnt more by nearly accident than actually'	
'Didn't know I had so many opinions'	
In rote learning you don't develop yourself...this developed me the person'	
'I am more confident'	'I learnt more about my skills and qualities'
'Learnt a lot of good stuff in your class'	
'You're learning by actually doing the activities. That's so much better than actually sitting there reading something that someone wrote twenty years ago'	
'I did find it good listening to everyone's experience and being able to bounce ideas...but I definitely would prefer the theory as well'	
I don't know if I consider that learning...I'm probably subconsciously learning, for me learning is sitting down and learning something off by heart.'	

<b>Table 13: Students' Comments on Attendance</b>	
'Everyone was in all the time'	
The fact that we all had to be in helped (80% attendance requirement to pass the module)	
'The attendance was compulsory, but it's not kind of forced on you, it actually helps'	



<b>Table 14: Students' Comments on the Course Topics</b>
'Topics picked by us we could talk about absolutely anything, wouldn't work in a regular class, there's obviously stuff you have to learn'
'Student driven topics picked by ourselves, to do with our placement'
'Topics related to teaching and all the other stuff about teaching'

<b>Table 15: Students' Comments on the Collaborative Interaction</b>
'Time flew...it (discussion) flowed naturally'
'You could help each other'
'We helped each other and learned off each other'
'Held back a little at the start ...afraid initially '
'Made you start thinking about things you wouldn't have if you weren't talking'
'Had to stay focused on the conversation'

<b>Table 16: Students' Comments on the Tutor's Role</b>
'You (the tutor) said there was no such thing as a wrong answer...encouraged us to talk'
'The fact that you let us do that ourselves, (pick the topic) it was better for us. We would have hated it all if you had come in dictating'
'Facilitated us'

## 4.7 Chapter Summary

This chapter aimed to tell a detailed story of what happened in the TCL classroom, presenting the findings to give a rich picture of the importance of inter-elemental interactions required to enact TCL in practice. The themes in this chapter were intertwined and reappeared in each section, often echoing and mirroring differing representations, through the four key areas discussed namely: *topic, tutor, student* and *interaction*. Trust, relationships, openness and honesty as well as a willingness to contribute, were recurring themes running through all strands of the data.

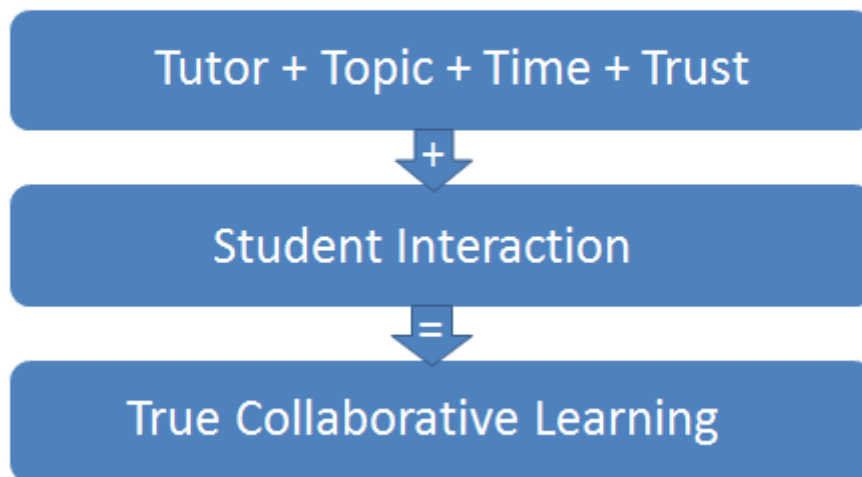
The insights that emerged about what comprises the TCL environment are complex. These included the relationships between student and student, tutor and student, and the profound importance of certain features of interaction that promote, develop and deepen TCL. Important factors were environmental elements, the levels of student interaction, in particular the importance of both language and the other multiple modes of communication and the roles tutor and student grapple with in the TCL environment. These factors contrast with many H.E. traditional classroom practices. The four elements fuse together to create a unique form of collaborative learning in this specific context. The enactment of TCL rests not only on the four elements, but also on an organisation's learning culture, the foundations of which influence the actions, positions and dispositions of the topic, student and tutor practices. These underlying dimensions and some of the tensions they can generate will be discussed in the next chapter.

## Chapter 5 Discussion

### 5.0 Introduction

The clear parallels between the TCL elements and Hodkinson et al's (2007) characteristics of learning culture are outlined. Consequently, I use the collaborative formula (Figure 3) in conjunction with Hodkinson et al's (2007) characteristics to explore the influences of learning culture on these TCL practices and its significance for each of the elements uncovered. It illuminates how complexly intertwined and multi-layered these elements are when they are underpinned by both the learning culture and the enactment of the new TCL environment.

### 5.1 The True Collaborative Formula: Figure 3



As discussed earlier in Chapter 2 existing collaborative learning theory identified four key elements in the collaborative environment, *tutor*, *topic*, *student* and *interaction* (Cohen, 1994; Parr and Townsend, 2002; Webb, 1989). Table 2, in chapter two, outlines the four elements and highlights the differences between

peer tutoring, co-operative learning, collaborative learning strategies and my proposed interpretation of TCL.

From the research findings, two additional elements were incorporated into the formula; time and trust (Alexander, 2008b; Jaques, 2000). Each of these elements, already acknowledged by research in peer learning environments as important, fuse together in a more seamless process to support the TCL environment, all of which occurs within a particular learning culture. In addressing the challenge and tensions associated with the TCL environment, learning culture is a pervasive presence and one that must be acknowledged in order to foster the successful enactment of this learning environment.

As outlined earlier Hodkinson et al (2007) list seven key characteristics of learning culture. The first four relate to *tutor, student, course* and *inter-relationships* and align themselves directly to the four key elements of TCL. The latter three, concentrating on *policy, the wider vocational culture* and *social values*, were not a direct focus of this research study. The findings are discussed and explored in relation to these learning culture characteristics and the lines referred to in brackets (for example Line 6), during the discussion are taken from the students' extracts which are numbered in section one of the findings chapter.

## **5.2 The positions, dispositions and actions of the tutor.**

The positions, dispositions and actions of the tutor in the TCL process are central to its success, particularly in relation to the powerful influences of tutors' prior expectations. As an insider researcher I admit that objectivity in this part of the discussion is challenging. My disposition is influenced by both my historical and current relationship with this institute at which I studied both as an undergraduate and post graduate, and where I have been employed for the last fifteen years. I have experienced the traditional classroom culture of this institute from the viewpoint of both student and tutor and have been entrenched in this culture for a very long time. For the last fifteen years I have worked within this community of practice (Lave and Wenger, 1991) and would rarely question my practice in the traditional H.E. classroom. One could say I am institutionalised. However, I also spent a decade in industry between my undergraduate and post-graduate qualification and in that time was exposed to other cultures and work practices, allowing for self-development, acceptance and appreciation of different cultural practices.

In my current position as co-ordinator and driver of the TCL initiative, my pivotal role as tutor poses challenges. In contrast to my traditional lecturer role, I am now working without an established community of practitioners to help develop this new TCL environment, and as evidenced in the findings, am open in discussing my disquiet and constantly question my practice in the TCL environment. The actions of the tutor are outlined in the findings, (Table 9), where key themes are identified in the tutor's practice, crucial to the success of this collaborative role, but not critical in the traditional lecturer role (Smith and McGregor, 1992). I had to develop new skills, initially forming a good working relationship with the participants. As tutors in H.E., our social skills are not traditionally seen as important strengths in the classroom; rather, the focus is our level of knowledge and imparting it to the student group is the focus. Alexander (2008b) challenges this idea, suggesting that the focus should be student learning not tutor teaching and that dialogic teaching requires high level of communication skills similar to

the facilitator's role in the TCL environment. Secondly, the importance of promoting honesty and openness in communicating with the group appears a significant factor in encouraging the collaborative contributions. This required me to change my traditional practice of rote, recitation and instruction (Alexander, 2008a) and develop a completely different tutor role and skill set in the TCL classroom, focusing on discussion and dialogue (Alexander, 2008a), as highlighted in the findings. Promoting honesty and openness requires trust, both from the participant and the tutor and this is earned over time. It forced me to be more informal in my approach, using warm friendly encouraging tones, the continual use of positive reinforcement and gentle repetitive questioning, sometimes challenging, sometimes open-ended. A participant in the focus group commented that:

*'You (the tutor) said there was no such thing as a wrong answer  
...encouraged us to talk...facilitated us'*

Alexander (2008b) argued that tutors should have an ability to initiate interventions that may improve learning. In this case my new facilitative role required: concentrated listening instead of lecturing; probing and questioning instead of answering; and engaging with both the students and the process instead of delivering. By adapting my practices, the new skills of listening, questioning, probing and engaging in the process may have enabled an environment in which TCL could be cultivated.

One of the research questions was 'What factors influence TCL practices in an undergraduate classroom?' The answer: all or most of the above skills are required by a tutor in this specific environment. The underlying challenges of this skill set raise even more questions. I in a previous life, prior to lecturing, had a professional background in oral communications and speech and drama, so had previously developed the verbal, non-verbal and role playing skills required to

foster this learning process. I, as tutor in this context, am a community of practice of one, and colleagues do ask *'What do you actually do in that classroom?'*

I find it difficult to explain, and would argue that this is more than just a technical set of skills and that these skills are not easy to acquire or develop. They cannot be learnt; instead it requires time, practice, confidence and importantly, a particular type of tutor to be successful. Tutor characteristics should include confidence in one's own ability to communicate and engage with students, a core set of beliefs regarding pedagogy, and a genuinely student-focused approach to teaching and learning. These skills could be developed and supported by a community of practitioners, whose practices are accepted and supported by their colleagues in their learning culture. In parallel, the students are also a community of practice and this is addressed in the following section.

The energy expended in my role in the TCL classroom environment is mentioned and the physical and mental engagement both verbally and non-verbally is noted in the findings. Yet the power dynamic appears significantly different to a traditional lecture. An intangible quality of the TCL environment stems from the relationship between tutor and group. Facilitating this informal setting is a key element of TCL environment, in that the facilitator role is intuitive and almost non-interventionist, allowing the group to find their own group dynamic. This was evident in the findings with my non-directional and gently probing verbal contributions (Line 2, 4, 8). The other multiple modes of communication (Norris, 2004) supported this approach. My vocal tones were encouraging (Line 35), my posture attentive sitting up leaning forward showing interest. My gaze was direct eye contact in the early weeks, as I sat at the front of the room, encouraging contribution through eye contact. I often used gesture, pointing a finger at someone, to encourage vocalising their contribution. This organic approach to TCL is a key element to this learning environment, because if I had taken a more directional or harsher approach, it would not be TCL. This took time to develop

(approximately five weeks) before I saw what I considered to be a TCL environment emerge, where enactment of the process became more evident. However time is something tutors in the current H.E. culture do not have, consequently time poses a real tension in enacting a TCL environment.

However as facilitator, I did initially in the earlier weeks help scaffold (Bruner, 1975) student learning by remaining sensitive to the ability of the group and not pushing them. Rather waiting for them as a group to gain that cohesion, while still creating and maintaining a safe learning environment. Scaffolding can take many forms as Mercer (2000) suggests, or emerge from focused engagement and interaction according to Barron (2003). I used my verbal and non-verbal contribution, discussed above, to scaffold and cultivate student interaction. This is in line with Vygotsky's (1978) belief that the role of a teacher may be as a facilitator to guide a student through ZPD. In the latter weeks, co-construction (Reusser, 2001) took place between group members as capable peers scaffolded each other. Here my role was relegated to a partner in the environment, watching them enact the TCL process.

In line with both the tutors' role and culture, this concurred with Hodkinson et al (2007) who argued that it demands a commitment by the tutor to drive a particular initiative beyond their job description. Yet as in many countries, H.E. in Ireland today is fraught with constantly changing demands on tutors. Tutors now wrestle with increasing class sizes, more teaching hours, decreasing student tutor contact hours, and an increasingly diverse student population, while still expected to maintain standards. In light of these demands, one of the key barriers to introducing TCL may stem from tutors opposing not just change in itself, but this type of learning environment where the demands on the tutor are significantly more challenging than those of a traditional lecture environment. In response to the changing demands of employers in recent years, now require students to be 'work ready' and as tutors if we are to prepare our students for the workplace they



will require more than just academic skills. TCL as a learning environment aims to equip students with some of the social skills required, listening, questioning and developing awareness and an ability to work in partnership with others.

Another intervention that I believe proved important was the setting of ground rules for the TCL classroom. In line with Barnes and Todd (1995), Littleton and Mercer (2013) and Isaac (2012), the idea of ground rules is not in line with Irish H.E. culture in this setting, but as facilitator, in the first week I agreed basic rules with the group. Some of these included respecting each other and each other's contributions, allowing everyone have their say, listening to one another, and what I feel was an important ground rule, namely that, in my opinion as tutor, there was no such thing as a wrong answer in the TCL classroom. These rules, particularly the last one, freed the students from the fear of being wrong and enabled them as a group to enact TCL by exploring, asking questions and reasoning together to achieve learning talk (Alexander, 2008).

### **5.3 The positions, dispositions and actions of students.**

As I argued earlier the role of the student in the TCL classroom is decidedly different from the expected lecture format of H.E. Traditionally in our institute, our students come through the post-primary culture where rote, recitation and instruction (Alexander, 2008a) learning is often encouraged in order to attain entry points for college. This passive learning culture tends to continue in the H.E. domain. In contrast, TCL is an active learning environment that requires students to be present in the classroom, have independent voice and be comfortable working in a group environment (Boud et al, 2001, Trimbur, 1989). Culturally, our students tend to be individualistic in approach rather than collectivist. I am aware of this tension and promote a group approach in the TCL process, but allow each individual student be graded on a pass/fail basis. This also combats some of the concerns with social loafers, slackers or free riders (Clark and Blissenden,

2013 and Nelson, 2011) in this group learning environment because they must produce a piece of individual work to complete the module.

The action or inaction of students present challenges in enacting a TCL environment. Absenteeism of more than 20% can result in the student failing this module as there is an 80% attendance requirement, to counteract absenteeism. The students sign a learning declaration, committing to this, prior to commencing the module. Presently there is an argument in education about seeing our students as clients, and student surveys put increasing pressure on educators to provide a satisfactory service. In terms of absenteeism or presenteeism, there is an associated argument that we need to see our students as adults who make their own decisions. As adults they will sign work contracts, hence the introduction of a learning declaration in this module was an implementation tool I developed to encourage students to take responsibility for their own learning, something they need to be ready to do, particularly as it is an important factor in the successful enactment of the TCL process.

In regard to attendance I was reassured by comments made by the students in the focus group. These included:

*‘Everyone was in all the time’*

*‘The attendance was compulsory, but it’s not kind of forced on you, it actually helps’*

The challenge of the TCL experience is to make them responsible for their own learning and in signing the declaration, the students may not see attendance as compulsory but as something they had agreed to do. I cannot emphasise how important attendance is in the true collaborative classroom, and agree with

Falchikov (2001) who comments that attendance is an integral part of the higher education experience.

Presenteeism in the classroom culture in H.E. is welcomed but not compulsory. Students can miss class and catch up on the notes by accessing them on the electronic college blackboard. In contrast, presenteeism in the TCL classroom is a crucial component of the process as it is the only way in which the student can experience this learning environment. But presenteeism in itself is not sufficient, as highlighted by the non-collaborative student discussed in chapter 4. A weakness or limitation of the TCL classroom is that the student must be present and actively engaged in the process. If the student is not present they cannot listen. Furthermore, if the student is not actively present they cannot contribute, reflect or develop collaborative learning skills. These skills form the basis of this TCL environment, concurring with Alexander (2008a) who explores learning talk, and adds, that not only do students require the ability to ask questions, explain, explore and negotiate but also that students need to be able to listen, be receptive to others views, think about what is heard and give others time to think. Such qualities are also very important in the enactment of TCL. The researcher purposely uses listening as the first part of this learning process because, even if the student present does not verbally contribute to the collaborative process, they may still engage by listening and reflecting.

Interaction in the TCL environment of this study differed significantly from that of a traditional lecture, with student voices being dominant much of the time. The predominant aspect of the TCL classroom is not 'in doing', but rather in learning talk (Alexander, 2008a) with most of the student to student interactions driving the dialogue in an informal but focused direction. As seen in the findings chapter, the levels of independent student interactions are significant, with all students contributing at some point in the process, and reasoning together also visible in their talk (Mercer, 1995). The interactions in the early weeks were more accepting

and less questioning with the students taking a surface learning approach (McCune, 2003). In contrast, by week five where the high level of interactions appeared much more reflective with a deeper approach to learning emerging where students made links between topics and related things to the wider world (Table 7 and 8). McCune (2003) considers that deep learning done in an organised and reflective manner is one way to achieve high quality learning in H.E.

The TCL environment adds to this deeper learning approach, as is shown by M4's organised and reflective approach. In this specific episode of group collaboration (Volet et al, 2009), M4 as self-appointed group facilitator stands at the whiteboard (Line 97-100), listens, reflects and manages the contributions and offerings of three of the females in the room simultaneously (Line 110-116). On Osterholt's and Barrett's (2011) *Social Pragmatic Development Hierarchy Model*, M4 would be the highest level, an outreach collaborative student having well-developed social skills and with an ability to manage and direct group work to stay on topic as evidenced in the findings chapter (Line 97 to 106). According to Vygotsky's (1978) philosophy, M4 could be an example of a more capable peer helping his group move through the zone of proximal development. The group's practice as a community of learners has evolved to the point in the later weeks that the facilitator's role is swapped quite easily and silently among them, as seen when M4 relinquishes the role to F7 seamlessly (Line 116). These verbal and other multiple modes of interaction, the smiles the glances (Line 100), emphasise the close relationships, within the safe setting that is the TCL environment, and may be evidence of the students' acceptance and acculturation into this new learning environment.

I also became aware of the inaction or non-verbal contributions of the quieter students. With practice I was able to decipher through body language and other non-verbal multimodal indicators (posture, gaze, proxemics and gesture), (Norris, 2004) those who were active listeners in the process and those who had

disengaged. For example there was one male in particular who was very quiet much of the time but listened intently. He was always in, sat quite still, but his eyes, mouth and head were real indicators that he was engaged. He smiled with his eyes, his head would tilt to the side if something interested him, he sat in close proximity to the rest of the group and when he did offer a contribution, it was worth listening to. On the other hand, there was a non-collaborative female student in the group who was silent and generally disengaged from the learning. As discussed previously, she sat at the back of the room, twirled her hair, doodled and answered texts on her phone when in class, had little eye contact and appeared sullen and disinterested much of the time. Her posture was closed, head down, shoulders down, hunched over in the chair. Her enactment of presenteeism was instrumental, attending 80% of the classes and not one more. This reaffirmed for me how important student buy-in is in relation to attendance and the true collaborative process.

Student voice is a crucial part of the true collaborative process. The holistic idea underpinning the true collaborative environment observed here was to give these H.E. students a voice. In encouraging a community of practice made up of these students' voices, it allowed them to experience independent interactive learning, introduced the idea of verbal discourse enabling them to facilitate construction of their own learning, letting them experience high levels of uncertainty and multi-directional input from the group, their community of practice, in a safe learning environment. Students who interacted in the spirit of this true collaborative environment gained so much more than just a grade.

In line with rote learning, Trimbur (1989) argues that the group setting may stifle the student voice, with group members conforming rather than expressing their own ideas while Littleton and Mercer (2013) reflect on the problem of groupthink. Surprisingly this did not appear an issue with this group, perhaps because all the students in terms of teaching placement were of an equal status, and as a group

they did not reach consensus too quickly. All students but one wanted to voice their thoughts. Not only did the students voice their ideas, but their engagement with the process was evident from the tone of their contributions. Mercer (1995) explores the idea of disputational talk but, in this environment there was little dispute or negativity in the dialogue. There was one incident between F4 and the non-collaborative student in the early weeks during a discussion, but it was not related to the discussion, but rather her attitude in general, which he was unhappy with. He spoke to me after the incident, which was fleeting, maybe 30 seconds in length, and I did remind her of the respect ground rule in a private conversation later. The groups approach in general was more responsive (Hogan et al, 2000), cumulative and exploratory (Mercer, 1995) with consensus eventually emerging after extending and qualifying (Barnes and Todd, 1995) ideas. There were times in the early days, in my role as facilitator where I did play 'devil's advocate' (Line 6) to generate discussion or steer it in a particular direction or sometimes just to refocus the group.

In light of this study I suggest that the traditional rote learning culture stifles independent student voices and that while no learning process is perfect, promoting the chance of what might be called 'genuine' student voice and creativity is possible in the proposed TCL environment. However three contrasting student comments on rote learning from the focus group, reveal how individualistic student approaches to learning practices are. A comment from a male student suggested that he had some awareness of the limitations of rote learning:

*'In rote learning you don't develop yourself...this developed me the person'*

While a mature female student felt:

*'I don't know if I consider that (our discussions) learning...I'm probably subconsciously learning...for me learning is sitting down and learning something off ...off by heart'*

Another young female student commented:

*'You're learning by actually doing the activities (the topic), that's so much better than actually sitting there reading something that someone wrote twenty years ago'*

These comments, three different voices from a group of twelve, demonstrated the challenges of promoting TCL in the H.E. classroom. All three were in agreement that they learnt (something) but the idea of TCL is to encourage all group members to be responsible for their own learning, something the mature female appears uncomfortable with. In a further education tertiary college setting, learning culture is seen by Hodkinson et al (2007) and Davies and Ecclestone (2008) as actions, interpretations and social practices through which people learn. These elements are also seen as important in the TCL environment. However, I note that only two of the three participants saw interpretation and the social practices as important. Subsequently the challenge within the H.E classroom will be to create students who appreciate this different learning environment and accept and adapt to the practices of a different learning environment culture.

The inefficient use of student time in collaborative group learning is questioned by Edmund and Tiggerman (2009). I do not dispute this because time is a key element of the collaborative formula (Figure 3). I noted in the findings that it did take the group four to five weeks (half the classroom time) to fully engage with this learning environment. I did not consider this a waste of time because I argued that TCL may need what might appear to be an inefficient use of time initially to actually achieve its enactment and, once the collaborative process was understood, a deeper level of engagement was evident. This was displayed by some of the student contributions in section one of the findings, and as illuminated by the focus group findings. Students commented that:

*'We took it outside the class even to the gallery (the college restaurant)'*

*'And then you talk about it when you go home as well, it would be something that would be on your mind and you'd want someone else's opinion on it...I spoke to my mother about it'*

This suggested that it is not just the facilitator, or peers, in the TCL classroom who now help close the gap of Vygotsky's (1974) ZPD, but those other capable peers that he refers to, in this case, the student cohort over lunch, or a parent at home. By engaging students to take responsibility for their own learning, by encouraging this level of dialogue and independent thinking outside the classroom, we may open new possibilities for them, in those that help them scaffold their learning.

The level of engagement was impressive some days I could hear the students still debating the task while leaving class. However I would also admit that there were days that the students were not engaged, and note in the findings, that in the week prior to midterm, the students appeared tired and just did not want to talk, at which point I wished the group happy holidays and sent them for coffee. One has to be realistic about student engagement in any learning environment. In the traditional lecture culture, students can sit and daydream while the lecturer efficiently works through a certain amount of curriculum within a given time frame. Taking a holistic view of this semester I, on reflection, would argue that I found the level of engagement required of me in the TCL environment mentally demanding. Viewing it through the students' eyes, their level of engagement from that of a traditional classroom was also significantly higher, as evidenced in the previous chapter. Therefore, I should not be surprised that there were some days that they did not engage at that level. In retrospect, the consistency of their level of engagement was remarkable and these students even took the learning outside the classroom, not instrumentally to do a question or get a grade but



simply because they were actively engaged in the learning. This suggests evidence of TCL when, if enacted, should help students take their learning outside the classroom. This supports the deep learning ethos associated with the TCL environment.

The physical small group environment literature (Jaques, 2000) promotes circular seating suggesting that all members of the group have eye contact. This is in direct contrast to most Irish H.E. classrooms where many students sit behind their own desks facing the whiteboard. With good intentions to follow best practice, I had decided to sit the group in a semi-circle. However the participants were unwilling to move, and vocally challenged me, stating that they preferred to stay the way they were, which was sitting behind their desks close together in one small portion of their normal classroom. I did not challenge it, and let the students sit as they wished with no adverse consequences; in fact it probably fostered goodwill from the onset. Barron (2003) reflects on the students idea of 'Why can't we just stay the way we are' (pg. 160), commenting that researchers should consider students' feelings, and not over-focus or upset them with ideas of how the physical environment should be. This fits within the ethos of TCL where the students should hold an active and influential role in their own learning environment. In retrospect at the start of this research, I thought I had considered all the significant challenges the students might pose: for example, they might not contribute in the group; they might not agree to participate in the study; they might not have liked the camera being present. These were real barriers in my mind to enacting this TCL environment but, on reflection, it was the smaller insignificant things like seating that challenged them. They adapted to the real challenges with humour, confidence and good will and I now suggest that the greatest challenges to this TCL environment, may be finding a community of practitioners willing to implement and enact it, and an Irish H.E. culture open to change.

#### **5.4 The course specification, syllabus and assessment.**

As educators we focus on course specification, syllabus, learning outcomes and assessment. Setting curriculum is one way to try to make sure our students are aware of the threshold concepts of our disciplines. Modules are designed with this in mind but also must satisfy the certification and reporting requirements of all H.E. Institutions.

The programme specification of this Level 8 degree allows all third years students on the business degree a placement semester. In an innovative break with traditional placement culture, this flexible semester option challenges traditional placement programmes by allowing these non-teaching degree students to experience a teacher's role for a full semester. This innovation resulted in me having to design this module. The wording of both the module content and learning outcomes was adapted to encompass whatever emerged from the student discussion. That is not to say that the tutor does not have some ideas regarding indicative content, but the module design allows for the student to have a real input into their learning experience.

From the tutor perspective, had I been in complete control of the curriculum, I would not have included an Assessment for Learning (AfL) conversation, or a full discussion on teaching as a career (Appendix 4). The students spoke about several other things that I would not have included either, perhaps indicating that as educators, we can limit our students by over defining what we consider important in terms of curriculum.

From the student comments in the focus group, appearing to have control of this learning process in terms of topic seems important. One student commented:

*The fact that you let us do that ourselves, (pick the topic) it was better for us. We would have hated it all if you had come in dictating'*

As seen in the extracts this apparent control seems to encourage independent voice. There are no other modules, with the exception of their thesis, where students have control of the content.

The syllabus in the TCL classroom is made up of student-driven collaborative topics, emerging from student conversations as seen in Appendix 4. These conversations are aided by the fact that all the students who participated in this module are placed as trainee teachers for this semester. They therefore appear to have a common goal as they all want to try the teaching role, and subsequently this facilitates similar levels of participation within the group (Dillenbourg, 1999). To date, all students on the programme have entered through traditional pathways, but as stated previously, student intake has changed in recent years, with approximately 50% of our students entering the system through non-traditional pathways, which may create future tensions in terms of student goals, interests and ability. In the true collaborative environment until now, this ability level and common interest has allowed for student-driven topics to emerge. Yet this increasing diversity of student intake may present challenges in the future.

A collaborative topic should not be solvable by an individual but needs multiple inputs to explore the problem under discussion. This is demonstrated in the findings chapter where two of the tasks chosen are explained using extracts of the students' own words and phrases over the ten weeks. Earlier topics in week one, two and three are broad (Appendix 4). The students jump from sub-topic to sub-topic, with little direction or depth of argument but with multiple opinions and

reasoned inputs. As the weeks progress, one can see from the topics that the students are getting more focused and topics are debated, generating thoughtful discussion. For example, in Week 8 the participants discuss teaching as a career, delving into areas of career opportunity, advancement, job security and job motivation. The students stay focused on topic with each student taking it a level deeper as the discussion progresses (Barron, 2003). Similarly in Week 10, the topic of resources in education was raised once again by F1 and in contrast to earlier weeks' comments on this topic, what followed was an in-depth evaluation by the group of their experiences, thoughts and individual accounts of resourcing both locally and nationally. Viewing the topics holistically over the ten weeks suggests that there are more in-depth discussions towards the end of the period.

The students commented that, in terms of topic, it was important that they could talk about absolutely anything. From my perspective, their most telling comment in terms of topic was that it would not work in a regular class; as there is obviously 'stuff' you have to learn. The embedded effects of rote learning culture influence student perception of the TCL environment: for example, Boaler (2000) discusses students' community of practice, their classroom norms, and how influenced they are by their learning environment. In the HE environment, most students cannot see past this rote form of learning, but one of the participants in the focus group commented:

*'Compared to any of the other (traditional) classrooms, you take it home (the notes) and study it, whereas we had a conversation about a topic, and then went home and thought about it'*

According to Parr and Townsend (2002) the focus of collaborative learning is for students to interact, respect and share new co-constructed knowledge with their peers. Unlike our traditional classrooms where curricular material is sometimes

dictated by the tutor, the emergent topic, student-driven, becomes the vessel for the student to determine course content. The literature argues that true collaborative tasks aim to promote higher level thinking skills, critical evaluation and shared understanding. Learning notes do not promote shared understanding, but discussing it in class, going home and thinking about it shows some level of critical engagement, promoting the possibility of shared understanding and the development of higher level thinking skills in the TCL environment.

### **5.5 The inter-relationships, the other sites students are engaged with and the time students and tutors spend together.**

I agree that the first three characteristics of learning culture are important (Learning culture characteristics, pg. 54) to the TCL environment. The characteristic *time*, also identified in the collaborative learning formula, along with the inter-relationships and *interaction* levels in this proposed environment are a core tension in this discussion. They challenge multiple facets in this study and in current Irish H.E. culture.

Time is a re-occurring element in this study and is a key resource in making this environment successful. The time tutors and students spend together is normally predetermined by time-tabling and efficient use of resources, all controlled at a management level. This module timetables the students for three hours per week for a twelve week lecturing semester with me. This gives me thirty-six hours to enact this new learning environment. A basic element to implementing TCL is that it requires a two hour class, in contrast to the normal one hour period, to enable student enactment of TCL to take place, particularly at the start of the process, where the students are becoming acclimatised to the new learning environment.

The inter-relationships between the tutor, student and collaborative elements underpin the success of enacting this learning environment. The student to student relationship required is different to the lecture format where students develop little or no relationships with other students in their cohort. One of the female students commented that even though they were in class together for the last three years they didn't know each other. Consequently, developing these relationships took time, and was contrary to the participants' normal learning culture. In my reflective diary I commented on how frustrated I felt waiting for the student relationships to develop, but at week five was relieved 'to see the group knitting together nicely'.

Nevertheless, the support, trust and relationships built in this small group collaborative learning environment were important to the participants (Barron, 2003). Comments from the focus group reflected this:

*'We helped each other and learned off each other'*

*'We built a support network'*

This student-to-student relationship appeared to foster cohesion and trust, a key factor, in enabling the high level interactions which are core to the enactment of the TCL environment.

In contrast to the culture of the formal hierarchical relationship in the lecture format, where the tutor delivers and the student listens, the tutor to student and student to tutor relationship in this TCL environment is informal, equal, linear, open and trusting. This collaborative relationship, which Dillenbourg (1999) would see as a social contract between tutor and student was developed by the tutor setting ground rules which included:

*'There is no such thing as a wrong answer'*

*'What's said in this room stays in this room'*

*'Everybody has an equal say'*

*'As adults we can agree to disagree'*

Consequently, I suggest that the way in which the collaborative conversation is introduced by the tutor is a key determinant in enacting the true collaborative process. An experienced tutor is required to build both the collaborative environment and the process, and in doing so to encourage student-driven TCL. This is a deviation from most Irish H.E learning cultures and the traditional role of the lecturer. The challenge, as educators, is how we find and train tutors willing to engage with this environment and how they will be helped or hindered by existing learning cultures.

In terms of time, interaction and inter-relationships, the collaborative learning environment proposed is complex, uncertain and therefore risky. While the separate elements of a TCL environment are present in most learning environments (students, tutor, topic and some degree of interaction) I suggest that it is the complexity of how these elements are developed, and implemented through time, trust and levels of interaction, proposed in the collaborative formula (pg. 157) that aid in the creation of the ethos and eventual enactment of the true collaborative environment.

Hodkinson et al's (2007) first four characteristics of learning culture discussed above align directly to the four elements in this study. The remaining three characteristics while not the main empirical focus of this study are referred to briefly, because arguably many H.E. practitioners, institutional managers and researchers will recognise their powerful influences.

## **5.6 The effects of college management procedures and policy regulations.**

A detailed discussion of this characteristic is outside the focus of this research but I acknowledge that my school's policy is essential to the learning culture that allows me the freedom to design the module and deliver it autonomously. The Dean of School is progressive in his approach to teaching and learning and encourages staff at school level to be pedagogically innovative. This enables tutors to explore different pedagogical approaches in a safe and supportive environment, not just for the student but for the staff too. For example, when it was designed over 10 years ago, this module was not in line with any other Irish H.E. placement module in the country, but he supported both the idea and the staff involved, particularly in the early years, giving them time on their timetables to develop this approach, sitting in on meetings to show support and always being willing to send out staff emails congratulating progress made by those involved.

Despite the support of the Dean of School, other emerging features of the learning culture are less positive. For example, the external economic trends in recent years have effected institute-wide management decisions. Declining budgets and a greater need to self-finance has led to increasing class sizes, more student/tutor contact hours and changing working conditions. Student intake has also changed institute-wide, with many students entering through non-traditional pathways and a growing number of international and culturally diverse students now appearing in our classrooms. These external tensions have implications for tutors' practice and, in particular, hinder the enactment of TCL which needs more time and smaller class sizes.



### **5.7 The wider vocational and academic culture of which any learning site is part.**

The wider academic culture is a crucial component of the learning culture in which this study is located. The research took place in a Third Level H.E. Institute in Ireland. In academic terms it would be positioned between Further Education Colleges and Universities. This H.E. Institute has existed since the 1970s, originally being a Regional Technical College and today offers courses to undergraduate students at Level 6, Level 7, Level 8 and post-graduate at Level 9 and Level 10.

In-line with wider academic practices in recent years, the institute embraced semesterisation and modularisation. This widespread H.E. culture encourages larger class sizes, with lecturers often having more than one programme cohort in the classroom. This can promote a rote learning approach and its instrumental approach is in direct contrast to the aims of a TCL environment.

As discussed earlier, changing trends in education, particularly the belief that our students should be viewed as consumers, intimates a change in the cultural underpinnings of education by giving students perhaps a stronger voice. This forces us, as educators, to ponder the changes that may emerge from this re-evaluation of the student/institute relationship.

### **5.8 The wider social and cultural values regarding class, gender, ethnicity, employment opportunities , family life and the perceived status of the H.E sector.**

As discussed earlier I believe that factors concerning class, gender, ethnicity, family life and the status of the institute do not appear to have significant influence on TCL in this particular setting. For example unlike the UK, class does not appear to have the same overt significance in the Irish H.E. educational context. The H.E. sector in Ireland is respected, and our institute a recognised educational provider in our region. Our student intake is through the formal CAO (Central Applications Office) national system, a system that offers students places based on the points they achieve in their Leaving Certificate, their final post primary state exam, regardless of class, gender or ethnicity rather than academic ability. The module in this study has run for eight years and, in that time, all the students choosing this programme had English as their first language, had sat the Leaving Certificate Exam and were Irish in nationality, and so are all products of the educational sector in which they were placed as student teachers. Nevertheless, as I do acknowledge above, there are growing pressures on this homogeneity of student cohort.

Socially, the student status within the group appeared balanced, with similar levels of academic ability and a small age difference (approximately 10 years) between the oldest mature student and the youngest member of the group. The group lunched together, had coffee together and, as the data extracts in earlier chapters show, the diversity in gender and age did not seem to affect the relationships and power dynamic in this group. This could be attributed to their common ethnicity and cultural values.

## **5.9 Enacting a True Collaborative Learning Classroom**

When I started to think about how to describe the essence of a ‘true’ collaborative classroom, my initial thoughts returned to my starting point, Parr and Townsend (2002), who described TCL as knowledge that ‘is genuinely socially constructed between or among individuals ... sought and negotiated together so that the one collaborative outcome is greater than the sum of its parts’ (pg. 412). When I set out to define TCL, tensions emerged in the literature surrounding collaborative learning environments. These tensions challenged me when I tried to explicitly describe the untidy boundaries between my TCL practice and other prominent collaborative learning practices, PBL, EBL and DL. The fuzziness between these distinctions forced me to reflect on what I understood the meaning of ‘true’ to be in the context of my study. Based on Table 4 (pg. 31) I explored the nuanced differences associated with each of the collaborative learning environments. On reflection the intangible differences that did emerge were fuzzy and almost boundary less. With hindsight perhaps it is indicative of all collaborative learning processes, that the terms depicting these learning environments e.g. enquiry, co-operative, dialogic, are as vague, value laden and intangible as the environments themselves.

From a philosophical viewpoint, I was an ethnographer observing social constructivism in action in an undergraduate classroom. From my ethnographic perspective the word ‘true’ is value laden, and bound up in complex and often unconscious ways with positionality, beliefs about the purpose of education and knowledge and what counts as good teaching and learning. As an interpretivist particular values surround my use of the word ‘true’ in relation to my learning environment. ‘True’ here has two relevant and related meanings. True as ‘genuine’ or ‘meaningful’ collaborative learning and ‘true’ as a ‘trustworthy’ account of the truth as I, an ethnographer, found in my analysis.

As an ethnographer, and in line with Pink (2007), I realised that in observing and interpreting the interactions of the participants in my study, that my truth of this environment would be my representation in context of what I observed. In contrast the participants' understanding of what they experienced in context would be their version of the truth, shaped by their specific standpoints (Pink, 2007). I observed my participants socially construct their meaning together so taking the constructivist point of view, truth is constructed by these social processes based on the participant's experiences in context. So now I had multiple truths of one situated context, mine and the 12 participant's views. How could I measure what is true or attach any value to it? The concept is therefore highly problematic and totally relative to each individual's perspective, and, in turn, it raises further contested and difficult questions about what and whose knowledge is important, and whether knowledge is more important than the process of socially constructing it.

My study cannot claim to address these questions in-depth. In relation to creating as trustworthy account of collaborative learning as possible, as I discussed earlier, I spent many hours familiarising myself with the data by transcribing and analysing it in detail, in order for me to get my representation of what I saw and heard in this 'true collaborative learning' environment. The factors I extracted from the data that for me formed an important part of what I called true collaborative learning were trust, the informal role of the tutor, the relationships between all participants in the classroom, student buy-in, the level of student engagement and the ethos that developed over time.

The feedback from the participants also suggested that these were also important factors for them in this learning environment. The participants in the focus group commented on the support network they built and the relationship between the class group, in that they were comfortable with each other (Table 11). Student buy-in was reflected in the comments on attendance with students acknowledging

that everyone was in all the time (Table 13). Student engagement was noted with comments on how quickly time passed, that they helped each other and that discussions flowed naturally (Table 15). They commented on the tutor that I encouraged them to speak and facilitated them (Table 16). On reflection, I realised that while there is no one 'true' what did emerge from both reflective lenses were similar ideas on what made this 'true collaborative learning' environment effective.

Some of the intangible characteristics outlined above that presented in my TCL classroom were the role of the tutor, student buy-in, the importance of relationships, trust and the level of student engagement. These characteristics illuminated through my data analysis led me to believe that the enactment of TCL is the ethos that is created between all those present in the TCL classroom. In order to explain the untidiness associated with enacting and achieving TCL, I attempt in the following paragraphs to describe this process in action, acknowledging the interplay of student and tutor roles in my 'true collaborative learning classroom'.

I have argued that in creating and enacting a TCL classroom environment, a certain ethos has to be developed and that this is not amenable to definitive descriptions. I suggest that it is initially shaped and constructed by the social elements, mainly the relationship and levels of interaction between tutor and student, and later student and student. These, in turn, are influenced by the broader social and cultural dimensions of the learning culture.

My initial role as facilitator was to create and establish a relationship of trust between the students and me. In order to initiate this, I set some ground rules (discussed previously pg. 163), and from the onset maintained an informal tone and an informal role in the TCL classroom. I suggest that this informal role is

essential for the initiation and enactment of a successful TCL environment. This role is not hierarchal but rather a partner in process with the group, facilitating and enabling the group in initiating true collaborative discussions.

Looking at the TCL classroom from the students' perspective, the student to tutor relationship and the student to student relationships take time to build and cannot be by-passed or speeded up. These relationships were the foundation for creating an open and trusting TCL environment. The students required time to learn how to build and explore a collaborative topic together, but with an open trusting relationship developing within the group, I as facilitator and partner in action, could, with the goodwill and support of the group, encourage the students to build the skill set required to enable them to enact the TCL environment.

Initially, the collaborative process hinged on my presence and my practice to help the students engage with the idea of choosing a topic. In the early weeks I used an informal invitation to encourage interaction. These included a smile, a nod, or a simple gesture to give them space to join the conversation. As the students became more expert in managing the topic, the data showed that although my voice was less prominent, I was always there to support and help the group enact the TCL process. While present at all times, I contributed little to the classroom discussion in terms of content, instead my contribution in this role was facilitation and building trust.

The TCL classroom is represented by the interrelationships between the three main elements of this learning environment, (student, tutor and topic) formed through trust, time and facilitation. Their culmination and subsequent synergy enact the TCL environment, allowing the TCL process to evolve. Implementation of the technical aspects of this learning environment was arguably not difficult, but enactment and achieving its true ethos was. This can only happen by aligning

the three core elements (tutor, student and topic), through high levels of facilitation and trust developed over an extended time period. This extended time period, was enabled by the broader aspects of learning culture including the wider management culture and policies of my department, whose academic culture of encouraging pedagogical innovation and change supported the development of the TCL environment. While not tangible, these learning culture characteristics were important underpinnings to the successful enactment of this environment.

The absence of any one of the six elements within the learning environment would result in the non-enactment of TCL. For example the non-collaborative student while physically present in the TCL environment did not contribute, and so appeared to remain outside the TCL process.

Emerging from the research and important to the success of the TCL environment are the skill sets required for both tutor and student. The tutor requires subtle and authentic skills of concentrated listening, probing, questioning and engagement: these cannot be simply trained as technical skills but have to be rooted in a genuine and deep commitment to the ethos and aims of TCL. These tutor characteristics concur with Vygotsky's (1978) ideas about tutors as facilitators, Mercer's (2000) concept of tutor scaffolding for the classroom and Alexander's (2008a) talk for teaching all of which encourage discussion and dialogue. While these attributes are important to classroom learning these researchers acknowledge the difficulties of enactment. Student voice, independent thinking, a willingness to contribute, active listening and an empathy with the group are key skills for the student in this environment, characteristics also recognised by Alexander (2008a) in learning talk.

The disparity between more traditional learning settings and the untidy cyclical TCL environment presents challenges and tensions for both the tutor and students

in an Irish H.E. context. The challenges to enacting this learning environment, the researcher would argue, are not the students, who in this study approached TCL with humour and goodwill, but rather the researcher's colleagues who tend to not appreciate nor comprehend such a break with traditional H.E practice.



## **Chapter 6 Conclusions and Recommendations**

### **6.0 Introduction**

This chapter collates key arguments from the thesis in order to propose recommendations for theory, practice and future research, highlighting tensions that underpin practice for the twelve participants and the tutor in this TCL environment. The chapter is organised around the research questions posed.

### **6.1 Overview of the Research Questions**

#### **What is True Collaborative Learning?**

The aim of the literature chapter was to provide a definition of TCL. In order to achieve this, the chapter explored collaborative learning, recognising that it spans a broad spectrum of peer learning environments from peer tutoring to co-operative learning to collaborative learning (Parr and Townsend, 2002). I observed that there is little consensus in the literature on the definition of collaborative learning (Barron, 2003; Laal and Laal, 2012; Trimbur, 1989; Wiersema, 2000), and argued that collaborative learning includes students actively listening, articulating their own ideas, and, in doing so, constructing and enabling their own framework of learning. While analysing current collaborative practices and learning strategies such as DL ( Alexander, 2008a and Flecha, 2000), EBL (Price, 2003) and PBL (Barrett and Moore, 2011; Deignan, 2009; Engel, 1997; Harland, 2002) , I recognised that none of the literature properly explained in detail what was evolving in my collaborative environment, nor what factors helped or hindered it. For example, Parr and Townsend (2002) mentioned the idea of TCL but did not explore it further, noting that by its nature it is difficult to research. Similarly Alexander's (2008a) and Flecha's (2000) thoughts on dialogic teaching and learning supported the idea of TCL and appeared the closest thing I had found to my specific environment. By comparing these existing peer learning theories and strategies across the continuum (Figure 2, pg.11) I situated TCL at the end of the

continuum and proposed a more robust definition of TCL (pg. 30) , aiming to illuminate some clear differences between PBL, EBL, DL and TCL.

Secondly, I identified a gap in the literature in relation to four specific elements suggested for future collaborative group research. Further studies on topic and interaction were suggested by Cohen (1994), Dillenbourg (1999) and Volet et al (2009) and the role of tutor and student in real classrooms noted as important according to Barron (2003) and Boud et al (2001). Using these four elements as the focus of this study a deeper understanding of the TCL environment emerged.

This has enabled me to draw out and then examine empirically, in detail, how these factors work in a particular TCL environment. This generated a research design in terms of data collection methods and data analysis techniques that would best answer the research questions. I then proposed that the methodology was rooted in the constructivist learning philosophy that underpins TCL. The methodology was driven by my insiderness, the small cohort, and the time frame for the research which culminated in an ethnographic insider case study. The visual ethnographic focus of the research, acknowledging the salience of Pinks (2007) beliefs, allowed me to observe, interpret and present the students interactions in a specific environment, recognising the representativeness of my experiences in context. In doing so I was as loyal as possible to the context, while conscious of the need to be aware of ‘objects, visual images, the immaterial and the sensory nature’ (Pink, 2007:22) of the participants experiences in this TCL classroom. Methodologically, the importance of my reflective diary, which I kept in an honest and timely manner, cannot be overstated. It became my reflective sub-conscience and gave me the space to query and search my own subjectivity during data analysis.

### **What factors influence the CL practices in an undergraduate classroom?**

The findings chapter set out to offer an in-depth account of separate themes emerging from each of the four elements identified from the literature namely tutor, student, topic and interaction. On completion of this, what became evident were the overlaps in terms of some themes common across all four elements. While each received equal attention in the literature, it is in relation to the learning culture where I concurred with Hodkinson et al (2007) who acknowledged the pivotal role of tutors in driving particular learning initiatives. This thesis aimed to contribute in-depth empirical insights about how this role worked in this TCL environment.

### **What are the students' perceptions of the CL environment?**

Recognising that a methodological tension in a constructivist approach is how to represent students' perceptions' the findings aimed to depict the cohort's thoughts on this learning environment. In line with insights from the literature, they commented favourably on the smaller class sizes that suited the group work domain. The participants said they enjoyed the interaction and found it interesting to talk and listen to each other's ideas. They appreciated the tutor's role, and said in relation to themselves as students, that they learnt about themselves and took from the TCL process what they wanted. Again recognising the danger in insider research students might tell me what I wanted to hear, they appeared to have a positive experience (Table 11) and in the discussion I commented that I felt the students' interactions and engagement in this environment, as seen in the extracts, exposed them to so much more in terms of deep learning (McCune, 2003) than just a grade.

On reading Hodkinson et al's (2007) seven characteristics of learning culture, I noted the parallels between my four elements of TCL that I had identified intuitively through practice and then from the literature, and the first four

characteristics of their account of learning culture. Consequently, in the discussion chapter I structured my findings under these headings, acknowledging the powerful pervasive presence that social and cultural dimensions have in all our learning settings.

### **What are the implications for new theory and improving practice?**

This thesis aimed to contribute to the nuances of the tutor's role in implementing and enacting TCL and what emerged is that it is the tutor's relationship and disposition- open, informal, questioning with positive reinforcement- that is the crucial foundation for the enactment of the TCL process. Ironically, then, this is a student-driven environment that hinges on the tutor's practices. I have aimed to show that these skills and disposition are not merely techniques; rather they are authentic aspects of personality and genuine commitment to a challenging sometimes demanding approach to learning. They cannot therefore, simply be trained as skills. Rather they are deeply rooted in certain professional values and beliefs, particularly a constructivist view of learning and teaching.

The second idea that emerged from the discussion is that of student buy-in; at no time did I encounter resistance from the cohort (apart from the non-collaborative student) who were intrinsically willing to engage with this process. In contrast to Allan (1999) and Panitz (1996) who discuss the difficulties with group work and students unwilling to leave the grade behind; this was not what was experienced with this specific cohort. I addressed this in the discussion chapter when I acknowledged, that if I had set the indicative content, learning outcomes and assessment criteria for the module, some discussions just would not have happened. Maybe, then, it is we as educators and tutors who, through our curriculum and culture of learning outcomes, limit our students. What also emerged was that the topic and the interaction emanated from the tutor-student relationship, and it was this relationship, which initially hinged on the tutor, that

appeared to allow the students engage, grow and subsequently control and drive their own TCL environment.

What this research uncovered, then, was the possibility of an alternative, more advanced TCL environment suitable only for the small group environment and by no means suitable for all modules or subject matter. I defined TCL in context and explored both the benefits and challenges associated with the enactment of this learning environment for practice. While this investigation was exploratory, with multiple limitations, it aimed to open a debate about the possibility of TCL as an alternative learning environment in an Irish H.E. context. As I show below, despite strong limitations there are some mechanisms through which I intend to take this forward.

## **6.2 Limitations of the Study**

This study had a number of limitations originating from research design decisions, researcher positionality and the time frame.

As I described earlier, this was a small scale study comprising one single case study in context with one cohort of 12 participants, completing one module, on one course, within one department in a business school in one Irish H.E. Institute. The research time frame was limited to one semester and therefore excluded any longitudinal perspective. It presented a snapshot in time. The micro-level nature of this research therefore eliminated the possibility that these findings could be generalisable. Nevertheless, they are likely to resonate with, and maybe useful for, any tutor considering how to implement a TCL environment.

Due to the unique TCL approach, the researcher is not aware of any other H.E. modules, in an Irish context at least, that currently promote these practices and so

there is, at present, no study to which these findings could be compared. Yet while the findings are not generalisable to other similar contexts, they do resonate with the literature, and therefore could be useful for tutors in other settings.

I took a constructivist intepretivist approach to this research. In doing so, I was told by a tutor on an EdD weekend that ‘I wanted to have my cake and eat it too’ i.e. I wanted to claim all the characteristics of a constructivist, insider, small-scale study whilst promoting the benefits of TCL more widely. At the time the implications of this criticism did not resonate with me. On reflection and particularly due to the exploratory nature of this research, I recognise that although my approach might limit the verifiability of the research findings, future research proposed below responds to this tension.

I am an insider at multiple levels in this research environment. I am an employee of the Institute, a member of the business school, a lecturer in the department, co-ordinator of the placement option under study and collaborative tutor in the process. I have aimed to account for this insiderness in detail, with particular attention to the idea of insider subjectivity and pre-understanding in line with Gummesson (2000), acknowledging its drawbacks whilst maximising its benefits.

As outlined above, I hold significant social power in this setting and so I agree with Sikes (2004) who refers to this as ‘the balance of power between researcher and researched’ (pg. 30). The power imbalance in the classroom under study highlights possible issues of coercion, however subtle or benign. In this regard the students may have felt they must participate in the study and possible lack of free will may have influenced research findings. This might account for the non-collaborative student’s behaviour.

### **6.3 Contribution to Theory**

The purpose of this small scale case study was to explore collaborative group work at a deeper and detailed level and, building on my interpretation of the differences between various models of learning founded on notions of student-centred, collaborative and peer learning, to offer new insights into the elements and inter-relationships in a TCL classroom. I therefore aimed to contribute to collaborative learning theory on a number of levels.

**Addition of a definition of TCL to the Collaborative Learning Literature:** I tentatively proposed an advanced form of collaborative learning called TCL. As I outlined above, this emerged from my review of the literature on peer learning environments that left me unsatisfied that what was happening in my classroom was encapsulated in the literature to date. In addition, while peer tutoring and cooperative learning were well-defined, there was a lack of consensus in the literature on a definitive definition of collaborative learning. Nevertheless core elements central to the learning environment were identified. In particular, the notion of ‘true’ collaborative learning suggested by Parr and Townsend (2002) resonated with me and I put forward a new definition of TCL (pg. 32).

**Description of the TCL practice:** There is little in-depth, rich description of collaborative learning practice from an insider perspective in the literature. This small scale in-depth study described this TCL environment in an Irish context, detailing the elements individually and painting a rich picture of TCL in practice. The discussion tried to clarify the complexities of the inter-relationships in this environment, exploring how they may combine to enact this process while managing tensions and adjusting boundaries in order to adapt to this new learning environment.

## 6.4 Implications for Practice

One of the challenges of this study from the onset was to give the reader a real sense of what happened in the true collaborative classroom. Once again returning to the words of Thomas (2011), which resonated and stayed with me throughout this process, he decreed that the reader of a case study should be able to smell human breath and hear the sound of the voices. Setting this as my benchmark, I aimed to provide as rich an account of the TCL environment in action as I could, in order to offer some insight for practitioners into the practices of this complex classroom.

**Opposition to Change:** One of the challenges to implementing any new idea is the resistance to change. However, if the change is one that requires more time, work and effort on the part of the tutor, without any explicit benefits to them, then opposition levels will be high, especially in the increasingly pressurised learning culture of Irish HE institutions I have outlined. Consequently, the tutor appears central to the implementation and enactment of TCL.

**Tutor Dependent:** The tutor is, simultaneously, the most important driver of TCL and its greatest barrier. As shown in the findings the tutor's role was informal, attentive, open, facilitative, questioning and supportive. I argued that it would be far more difficult for practitioners without external influences (those who have not experienced other learning cultures or been exposed to other teaching and learning styles) to independently break with their existing culture and change their practice. Therefore tensions arise when the tutor's predispositions, positions and actions are not aligned with TCL, as tutors' predispositions are a significant factor in introducing new learning environments. I have argued that the traditional role of the tutor in the Irish H.E. sector is the lecture format and the requisite skill set required does not align to that required for TCL. My findings are similar to those of Alexander (2008a) in recognising the importance of tutors' actions in the classroom. A tutor without this intuitive skill set may inhibit the enactment of the



TCL process and undermine the success of this learning environment. Furthermore, it is important that we as educators update our practice, by continuous professional development, if we are to challenge, change and enhance our organisational cultures and our professional practices.

**Communities of Practice:** In this research study, I am currently as tutor, a community of one and each time I complete a TCL semester my students and I become a temporary community of practice. Communities of practice according to Lave and Wenger (1991) support and develop learning environments. Concurring with this view, I believe that future development of this learning environment requires a community of tutors to help nurture and support other practitioners willing to encompass the ethos of TCL (Davies and Ecclestone, 2008) into their classroom practices. In addition, these practitioners will have to recreate a community of practice with students every time a new group begins TCL. In terms of practical implications for practice, time is required to create these communities of practice, both for the tutors and student groups contemplating TCL.

**Collaborative Skills:** As discussed above, practitioners will have to recreate a community of practice every time a new student group begins TCL for the first time. I question, as do Barnes and Todd (1977) Cohen (1994) and Mercer (1995) whether an awareness of collaborative skills is essential for students prior to being introduced into a TCL classroom, and that by engaging students with some of these skills it may save time and resources in the long term.

**Class Size:** Group size is a core factor in the successful enactment of TCL. My group comprised 12 participants. This size group in the literature is considered a large group (Jaques, 2000). What emerged from the study is the students' engagement with this learning process was underpinned by being in a small class.

Similar to the findings of Barron (2003), the students in this study appeared to feel safer and more comfortable interacting in the small group setting and made comments to this effect (Table 12). Irish H.E. as a sector has increasingly larger class sizes creating a real barrier to student engagement in, and acceptance and enactment of, this environment.

**Resources:** It should be clear from the thesis that the practices associated with TCL may necessitate greater resources at a time when the Irish H.E. sector is under-funded. This does not bode well for TCL as a practitioner tool in the H.E. classroom.

## **6.5 Implications for Research**

This study is exploratory in nature and has addressed factors and tensions associated with TCL in the H.E. classroom. Future research in the following areas would add to much-needed research in this area.

- A longitudinal study to compare different cohorts' positions, dispositions and actions to another TCL environment, in different disciplines and at different stages of the undergraduate process.
- An exploration of lecturers' perceptions of the TCL environment.
- An exploration of the challenges of assessing TCL.

## **6.6 Dissemination and Publication**

Throughout this research journey I presented my work to a wider audience. At the 2013 and 2014 Irish Academy of Management Annual Conference I presented two papers, one focused on the development of TCL in the H.E. classroom, the second, my perspective, as a participant observer of TCL in practice (Power O'Mahony, 2013 and 2014). In February 2015, I presented another at the H.E.

Conference, School of Education, Sheffield University, discussing the idea of the TCL formula (Power O'Mahony, 2015).

At the end of this research study there are two strands of this work I would like to publish. The first addresses the realities of insider research and the methodological challenges posed. Secondly, publish an article in the Journal of Further and Higher Education explaining TCL clearly to practitioners who wish to consider it as a pedagogical approach in their classrooms.

## **6.7 Conclusion**

At the outset of this research journey I aimed to '*Explore a True Collaborative Learning Environment and its challenges in an Irish Higher Education Classroom*'

This classroom under study challenged our deep-set traditional lecture dominated culture. However, I would now argue that it only takes the autonomy of one individual tutor to challenge culture and enact change. The challenge in this institution for the future of TCL is to recognise the institutional barriers illuminated by this study that hinder the learning culture of TCL and to be open to fostering and promoting change that supports this innovative classroom environment.

The question I ask myself is 'will I continue to develop and practice TCL in future years, if the current trends in the learning cultures of higher education continue'? Three key things that keep me motivated are the continued support of my head of department and dean of school, the positive on-going feedback from past students who remember and say they draw on the skills gained in my TCL classroom, and finally, the insights that writing and revising this thesis will add to my future practice of TCL.

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## Appendices

### Appendix 1 : Ethical Approval University of Sheffield

Corinne Power O'Mahony  
EdD Higher Education

**Head of School**  
Professor Cathy Nutbrown

School of Education  
388 Glossop Road  
Sheffield  
S10 2JA

15 January 2014

**Telephone:** +44 (0)114 222 8096  
**Email:** [EdD@sheffield.ac.uk](mailto:EdD@sheffield.ac.uk)

Dear Corinne

#### **ETHICAL APPROVAL LETTER**

#### **Exploring Collaborative Learning in the Higher Education Classroom in an undergraduate placement programme**

Thank you for submitting your ethics application. I am writing to confirm that your application has now been approved.

We recommend you refer to the reviewers' additional comments (please see attached). You should discuss how you are going to respond to these comments with your supervisor **BEFORE** you proceed with your research.

This letter is evidence that your application has been approved and should be included as an Appendix in your final submission.

Good luck with your research.

Yours sincerely



Professor Dan Goodley  
**Chair of the School of Education Ethics Review Panel**

cc Prof Kathryn Ecclestone

## **Appendix 2: Higher Education Students Information Sheet**

1. **Research Project Title:**

An Exploration of Collaborative Learning in the Higher Education Classroom in an undergraduate placement programme.

(Collaborative Learning is a form of group peer to peer learning where the students drive the learning by interaction and discussion. The research examines group interaction between undergraduate students on a placement programme in a higher education classroom which is tutor facilitated.)

2. **Invitation paragraph**

You are being invited to take part in a research project in the coming semester. 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. Please ask the researcher 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. Thank you for reading this.

3. **What is the project's purpose?**

The purpose of this research project is to explore undergraduate student interactions in a classroom setting in a placement programme by recording the student interactions.

The aim is to observe undergraduate student interactions in a Collaborative Learning Classroom in order to develop a greater understanding of what happens between students in group interaction. These interactions are important and the researcher wants to explore if these interactions influence student learning.

The second aim of the project is to explore if these influences enhance individual students learning. The duration of the research project is one semester in which the researcher as class tutor will facilitate the classroom sessions. This will take place in the scheduled class time over the 15 weeks.



4. **Why have I been chosen?**

Your group has been chosen because you experience collaborative learning at undergraduate level in a placement programme during your flexible semester as trainee teachers.

5. **Do I have to take part?**

It is up to you to decide whether or not you wish to take part. If you do decide to take part you will be given this information sheet to keep (and be asked to sign a consent form) and you can still withdraw at any time without it affecting any benefits that you are entitled to in any way. You do not have to give a reason.

6. **What will happen to me if I take part?**

If you decide to take part, nothing will change in the coming semester. You will go to class and behave as normal for the module 'managing the project'. The whole purpose of this research is for the researcher to get a greater understanding of how you interact with your group during the semester. Nothing is expected of you except your normal behaviour, and the research is all completed within scheduled class time.

Your responsibility is to be yourself. What will change is that the researcher will record the class so that the interactions can be analysed for the research. The recording is done for two reasons, firstly because the researcher your tutor does not want to change the way the class normally runs and she is involved in the group sessions and consequently she needs the recording so she does not have to rely on her memory.

The learning logs that you write up for your module will be used to identify individual learning as they would normally be.

**Why will I be recorded, and how will the recorded media be used?**

As explained earlier the audio and video recordings of your activities made during this research will be used only for analysis for research purposes. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings. At no time will your data be archived anywhere the researcher proposes to keep the data on secure passworded CD's which will be destroyed on completion of the project.

7. **What do I have to do?**

There are no restrictions or changes to your lifestyle as a result of participating.

8. **What are the possible disadvantages and risks of taking part?**

There are no risks in taking part. The researcher realises that the students may be uncomfortable with the camera initially but as all data remains anonymous there is no personal risk to the participants. As stated previously the researcher will control the keep the data in a secure pass worded CD for memory and data validity reasons.

9. **What are the possible benefits of taking part?**

While there are no immediate benefits for those people participating in the project, it is hoped that this work will benefit future students learning in a group setting by contributing to how lecturers and students use collaborative group learning in higher education in the future.

10. **What happens if the research study stops earlier than expected?**

The research will take place and be completed in the semester. If the research has to be stopped the researcher will explain why at that time. The researcher does not foresee this happening.

11. **What if something goes wrong?**

If there are issues arising during the research study the participants can speak privately to the researcher and if the participant is not happy they can withdraw at any time from the research.

12. **Will my taking part in this project be kept confidential?**

All the information that the researcher collects during the course of the research will be kept strictly confidential. You will not be able to be identified in any reports or publications. Access will be restricted to the information by the researcher who will keep pass worded secures CD's in a secure location.

13. **What will happen to the results of the research project?**

The researcher will be happy to provide all the participants with the results of the research once it is completed. Depending on the outcomes of the project the data collected during the course of the project might be used for additional or subsequent research. Should the research be used for academic publication in the future all participants will remain anonymous.

14. **Who is organising and funding the research?**

This research is not funded and consequently there are no other parties involved.

15. **Who has ethically reviewed the project?**

The project has been reviewed by University Of Sheffield. The University's Research Ethics Committee monitors the application and delivery of the University's Ethics Review Procedure across the University. The research must meet with their requirements prior to getting approval.

16. **Contact for further information**

Corinne Power O'Mahony 051/834029  
Patricia Bowe 051/834027

The University of Sheffield School of Education  
edd@sheffield.ac.uk

**Thank you for taking the time to read this. You will if participating in the study be given a copy of this information sheet and a copy of your signed consent form.**

### Appendix 3: Higher Education Student Participant Consent Form

**Title of Project: Exploring Collaborative Learning in the Higher Education Classroom in an undergraduate placement programme.**

**Name of Researcher: Corinne Power O'Mahony**

Participant Identification Number for this project:

**Please initial box**

1. I confirm that I have read and understand the information sheet regarding the above project 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 by contacting 086/8864168.
3. I understand that my responses will be anonymised before analysis. I give permission for members of the research team to have access to my anonymised responses.
4. I agree to take part in the above research project.

_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Name of Researcher	Date	Signature

*To be signed and dated in presence of the participant*

*Once this has been signed by all parties the participant should receive a copy of the signed and dated participant consent form, the letter/pre-written script/information sheet and any other written information provided to the participants. A copy for the signed and dated consent form should be placed in the project's main record (e.g. a site file), which must be kept in a secure location.*

## Appendix 4

### Summary of Student Topics Discussed Week 1 to Week 10

The information presented in the table below, is a summary of what the researcher sees as the main topics and sub-topics extracted over the ten weeks as these discussions unfolded. It tentatively identifies the sub-topics and discussion points aligned with each, in order to show the diversity of the emergent topics, and the re-occurrence and development of certain key topics.

Week	Main Topic	Emerging Sub-topics
Week 1	<b>Student Behaviour</b>	<b>Appropriate and Inappropriate Behaviour</b> Student Privacy, Informal School Policy, Management Communication, Health and Safety, Ethics, Formal and informal communications, Staff training, Managing an Incident, Classroom Management Techniques
Week 2	<b>School Environment</b>	<b>Teacher Role/ Student Identity</b> Student Identity, School Rules, School Policies, Student Issues, Society and Student Behaviour, Peer Influence. Class Management, Teacher Mode, Teacher Practice. Educational Resources, Language, Culture, Student Support, Reassurance and Political Correctness, Student Streaming, Student Welfare.
Week 3	<b>Work Environments</b>	<b>Teaching Environment</b> Work Life Balance, Job Satisfaction, Motivation, Impact of their Life Choices, Environmental Social Issues, Equality, Parental Rights, Data Protection, Teacher Protection. Technology in the School Environment
Week 4	<b>School Environment</b>	<b>Student Behaviour/ Teacher Role/School Environment</b> Differentiating Behaviour, Teacher Power, Minority Groups, School Resource Use and Special Needs Assistants, Informal Power Bases, Authority Issues, Teacher Stress.
Week 5 Post Mid-term	<b>Education System</b>	<b>Assessment for Learning (AfL), Curriculum, Learning Environment, Peers, Levels of Education, Assessment Issues and Student Focused Learning.</b> Peer Pressure, Peer Influence, Educational Setting, Cutbacks Intervention, Quality of Assessment, Training.
Week 6	<b>Module Issue (no camera)</b>	<b>Tutor Practices, Module Materials, Learning Environment</b> Curriculum, Delivery Methods, Assessment Methods, Classroom Management, Feedback, Relevance of Material Used. Differing Role

		of Tutors, Interest, Class Size, Trust, Their Role as Students, Verbal Articulation of Ideas, Difficulties in Writing.
<b>Week 7</b>	<b>Careers</b>	<b>Motivation, Job Satisfaction, Role Issues, Future Careers, Career Management, Personal Growth.</b>  Career Opportunities, Career Comparatives, Career Advancement, Career Blockers, Job Security, Motivation.
<b>Week 8 and 9</b>	<b>Student Behaviour</b>	<b>Genuine Behavioural Issues, Learning Disabilities, Management of Behavioural Issues.</b>  Modern Culture, Teacher Influences through communication, encouragement and taking the time to care, Teacher Paranoia in terms of respect, School Culture.
<b>Week 10</b>	<b>Resourcing Education</b>	<b>Resource Teachers, Resource Funding, Resource Use, Resource Abuse and Resource Sanctioning.</b>  Subject Resourcing, Resource Equipment and Materials, Resources as facilities, Resources for Students and Teachers, Principals Role

## **Appendix 5: Data Analysis Process: Worked example**

I have used the following transcript extract in interaction with the recordings from week 9 to show the path taken in the data analysis process. This capture and analysis of the transcript from the video recording was an iterative process and focused on student behaviour in week 9. The first step was to look over the transcript;

### *Initial transcript analysis*

1. I transcribed the class session from the video recording
2. The transcript was captured in chronological form, which allowed for the development of the topic, in this case, student behaviour.
3. I read the transcript carefully a number of times, highlighting comments made by various participants.
4. Then I revisited the highlighted transcript and carefully considered the highlighted comments, keeping in mind possible bias on my part as researcher.

### *Initial recording analysis*

1. I re-watched the video recording of session 9 following initial transcript analysis (above).
2. I searched for non-verbal behaviours on the video and recorded those of note.
3. I then looked for other multi-modal non-verbal indicators such as student posture, body position, eye contact or distraction, head movement, hand gestures including pointing, open hands, folded arms etc. I kept a record of these movements on my notes, although not all of these relate to a specific verbal contribution on the transcript.

This aspect of the analysis went to show the overall conversational patterns of contributions made and the levels of in-class participation and student engagement observed.

4. I then re-watched the video to pick up on other audible non-verbal indicators such as sighs, laughs, utterances. These non-verbal occurrences also helped to indicate levels of student engagement with the topic.

Steps one through four of the initial recording analysis was cyclical in nature as I went back and forth from the video to my notes to ensure I was interpreting the experiences of the students' engagement in the observed class setting.

5. Then I revisited my notes in interaction with the recording to carefully consider the highlighted comments, keeping in mind possible bias on my part as researcher.

### *In-depth data analysis*

6. I brought my initial transcript and initial recording analysis together.
7. I selected the extracts that showed progression in student construction of meaning on the topic.
8. I incorporated those extracts that showed student collaboration in action

9. I then analysed the selected text, being careful to review what I had seen on the video in interaction with the selected extract.
5. I revisited the transcript extract and interspersed noted non-verbal communication for inclusion in the findings.

*A scanned extract of the transcript with layered analysis is presented below.*

*For confidentiality purposes all names have been blocked out.*



Week 9 in schools Student Behaviour  
 Cor = Tutor

1/4/2014

M4

Cor: I'm not starting this conversation, ye started it. Yesterday ye said student behaviour is an issue in the classroom. What I'm asking ye is why, or what do ye mean by it and why do ye think it is

[Redacted]

Student: What do I need to write then?

[Redacted]

Cor: You're in control up there. Off you go (Hand out giving him control)

[Redacted]

Student: Come on, lads (smiles and starts conversation by facing gap)

[Redacted]

I'll start with primary school. I have the, I know I keep going on about this class that, there's this, really second class is three different classes in the (?) primary and one of them is the trouble class. And they're basically drawing short straws for third class next year, but I think there's an aspect of there's probably about four problem children in the class but they're holding back the rest of the class and there's a whole mind-set and culture of being needy and disruptive because the others get away with it so I think there's probably an aspect that it's learning from your peers. Then I think there's an aspect that there's genuine behavioural issues like...emotional issues maybe. So...

F5  
 [Redacted]

M4

Cor: So would you say it's a learning disability for others from just...I don't know

[Redacted]

Yeah I would say there's definitely, that you've got the disabilities, that's one section, but I think if there's too many of them in the one class, they're going to rub off on their peers and they're going to have a whole classroom of disruptive people

F5

F5

M4 Busy writing on board, and turning around to have eye contact with F5

M4

Angie: Put on disability for one and say

F5

Yeah, so you could nearly say pressure from other students maybe (questioning tentatively) (tone wud)

F5

Angie: Yeah

F5

Cor: It could be the size of the class as well. Like, if someone's in a big massive class and they feel like they're not getting attention, and the child that has a learning disability is getting attention, they'll just start acting up to get that attention, so it could be the size of the classroom or the size of the class that's an issue

M4

Angie: I think it could be the teacher as well

F5

Jonny: Would that come down again to the size of the class as well → leading in a nice way by questioning

F5

Angie: I can't see the board (sun is shining, in questing blind spot on board) shuffles to find better position

M4

Student: I think in primary school that the teachers might show favouritism towards certain students. If they figure out after a while 'Oh there's not a hope for them', just you could keep pushing them away and then by the end of the year, the child then would just want more and more (?)

M4

Jonny: With primary school, not just primary school, in secondary schools I know, it's not exactly the ones that work hard that would be your favourite. You could have the most troublesome child in the class and they could be your favourite student in the class

Continue notes at back of class  
 ↓  
 Students at Whitehouse  
 F5 + M4  
 M1 + M3  
 say nothing but smile at her

Whole group looking at M4 at board + listening

F3  
Roisin Student: Yeah

M4 Johnny: For whatever reason. I know with the lads that Paul teaches, and now this fella wouldn't be a bright spark by any means but, I don't know, he just, he has a like-ability about him, do you know that kind of way? So it's not necessarily their academic ability that makes them the teacher's pet as such, do you know that kind of way?

Angie: But I don't see favouritism in a really big way but they're young enough to pick up on it. All I do know is the same people are getting in trouble all the time

3) Roisin Student: Yeah, but when it's a primary school and they (?) there for longer, what age are they?

Angie: They'd be eight and seven

3) Roisin Student: Very young. But, like, they kind of know who they are, where they've come from or brothers and sisters

Angie: Yeah, they definitely know their background

F3 Roisin Student: Yeah their background

F5 Angie: Because they definitely...the teacher was talking to me about their backgrounds and any obstacles that impact on their development

3) Vase Student: Yeah, because really if they know that there's a whole family, that they're in an area, that there should really be proper resources. There should be a programme in place for them

F3 Angie: Yeah

F5 Student: To help them deal with their education

Intr Cor: Ok

Student: (???)

F2 Chloe: But I don't think the teacher should have a favourite

Roisin Student: Not so much a favourite but maybe kids feel themselves (?) 'I know that I hang around with them or I live up in that estate or whatever. We're just messers (?)'

F5 Angie: It's perception, like

F7 Michelle: Will you write down perception (giving instruction with a cheeky smile)

M4 Johnny: It's written already (smiling back)

F7 Michelle: I can't see it (He points it out)

M4 Johnny: So what you're saying with perception is you should respect backgrounds, maybe?

F2 Chloe: Perception and background

Good background of

(resources again)

2

**B**  
Student: It's just about how students feel about themselves as well, like, I mean they're as young as eight and they think that 'Oh sure I'm a messer anyway'

**ES** Angie (?)

Student: Yeah, at that age it's

**M4** Johnny So perception, what's perception come under?

Cor: What are you writing?

**M4** Johnny I wrote backgrounds for respect, to respect their backgrounds because they're kind of about a certain they don't

Cor: The blue isn't working ...

[unclear]

**M4** Johnny Throw them markers out (to Corinne)

**ES** Angie Rub it all out

**M4** Michelle Will you write in black please

Cor: Don't rub it all out (lots of info on board about to be lost)

**ES** Angie Not on the left-hand side, put it on the right at the end because

**M4** Michelle The shine is right in the middle

**ES** Angie No, no

**M4** Johnny Ok, hang on, what am I writing actually, go on

**ES** Angie Just what you've written on

**M4** Chloe Just keep to the right will you, because it's easier to see?

**ES** Angie Keep to the right, yeah

**M4** Johnny I'll write in black

**M1** Student: The black one

**M4** Johnny Right, what am I writing and where am I writing it?

**M4** Michelle: What everyone said

**ES** Angie What it says on the first column right on the

**M4** Chloe On the last

**M4** Johnny (?) for teaching

These comments happen really quickly almost simultaneously M4 is trying to take multiple different instructions at the same time.

Huge grp engagement, totally focused on topic + getting 'meanings' on the board.

Verbal  
all sound like teachers giving "instructions"



M4 remains calm,

Michelle: No, no

Chloe: Start on this side

Johnny: Right under difficulties

Michelle: And then that side (pointing)

Chloe: Go over there (pointing)

Johnny: Write on that side? (using his hands to adv where)

Michelle: No go

Chloe: Over here

Michelle: Get rid of difficulties and write it on that side

[unclear]

Johnny: I'm not writing on that anyway (the blind spot onboard)

Michelle: Johnny

Johnny: (?)

Annie: That's much better (giving support + smiling at him)

Michelle: Yeah (agreeing with a grin)

Johnny: Jesus (expletive as he tries to keep up with everybody with smiley good humour)

Michelle: You need to leave room for respect now as well

Cor: That is much better (supportive + calming) → (smiling + nodding)

Johnny: Right, so, perception... Am I writing these down again?

Students: Yeah (collective yes from group)

Johnny: Pressure from peers...favouritism

Annie: So are we looking at where all these headings stem from is it? Is that what we're doing?

Johnny: What they stem from (?)

Annie: What it comes from

Johnny: Yeah

Cor: Well, ye tell me how they impact on the teaching in the classroom so (steering a little)

Michelle: I have a first year and she's just far too, like, she has the knowledge, like, but she's far too lazy to actually put it to paper. It was maths and we were doing algebra the other day and I had to go

Multiple  
Contribs  
coming  
from  
all  
directions

M3  
Smiles  
in support

M4

The relationship + ethos developed allows this moment to evolve naturally and the group communicate easily often through non-verbals  
Smiles gestures etc.

down and sit beside her. And she was whispering to me, she was able to do it all except she's far too lazy to learn. So that affects the whole class. I don't know why but that's just a factor

Chloe: I think people are diagnosed with learning disabilities too quickly now

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Student: Yeah definitely (strong agreement in tone of voice)  
nodding in agreement,

Students: Yeah

Student: We're just kind of like 'Oh they're a problem, they have a learning disability'. Do you know what I mean?...Because years ago you wouldn't have, like in my class there could be three students with ADHD or diagnosed with ADHD, whereas years ago you'd probably have one in your year in all the classes, you know

Michelle: I saw a picture on Facebook the other day and it was a picture of

Johnny: It's like, em

Michelle: It was like, six pictures

Johnny: It was daydreaming, ADHD, loner, depression, and

Michelle: Like, nineteen <sup>1984 - 2014</sup> eighty compared to two thousand and fourteen. Hold on I'll find it

Angie: You showed me, yeah

Student: Show us, let me see

Michelle: Hold on, one second

Cor: Where was this?

Michelle: It was on Facebook. So the picture's called 'Childhood is not a disease', <sup>1984 - 2014</sup>

Johnny: What? Call them out

Angie: ADHD, Daydreaming

Michelle: But in two thousand and fourteen it's called ADHD

Angie: <sup>1998</sup> Nineteen eight, Hormones

Michelle: Hormones, two thousand and fourteen = Bipolar

Cor: Nineteen eighty

Michelle: I'll just come over and show you

Johnny: What's the first one?

Chloe: ADHD and daydreaming

Michelle: Daydreaming and ADHD

OFF TOPIC

They are looking at a picture shown to one of them that week on Facebook