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Author(s)	Chambers, Francis
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Chapter One - Introduction

Introduction

The primary motivation for schools engaging in educational change is to improve the learning experiences and academic outcomes of their students. I am the principal in the school where this case study is set. The study is centred on a curricular intervention aimed at improving the educational experiences and outcomes for students. However my focus is not on the student's reaction and engagement with the intervention but on how teachers respond to it as a change initiative within the school. By understanding how they engage with the process, particularly the implementation phase, I can become better informed as a leader in the school of what motivates teachers in terms of change and develop strategies that are workable and relevant and that reinforce the teacher's role as future agents of change in the school.

The motivation for investigating this problem is embedded in my belief that teachers have a unique role to play in the implementation of educational change. However, from my experience, their role is often vaguely defined and their contribution to the change process frequently undermined by lack of consultation throughout the process. The teacher needs to be an advocate of the change initiative for it to be sustainable and have long term success and a positive impact. Fullan (2013) agrees with this sentiment when he states: "Educational change depends on what teachers do and think- it's as simple and complex as that" (p. 129). Policy makers also seem to agree with this sentiment. So why is it that teachers can feel so manipulated, coerced and bullied when it comes to implementing change and why do they seem to be on the periphery of change and not in the centre as they should be considering the significance of their role in the process? (Hoban, 2002). By examining these issues there is an opportunity for change practices to be developed and implemented in an environment that encourages success and positive impact.

Research into the area of educational change has exposed its vulnerabilities on many levels (Fullan, 2011). It is clear that an assortment of measures need to come together to create proper change and these are dependent on each other for success to be achieved. The role of the school leader, the student, the parent, the wider school community and ultimately the teacher are crucial if the process is to work and this jigsaw is incomplete without all elements present. However in most change initiatives one or more of these elements are usually missing (Hargreaves and Shirley, 2009). This can create difficulties in the process which may result in failure. The effect of this failure often means that those involved in the process lose belief not only in a particular reform programme but in change generally and once disapprobation sets in, change is usually resisted (Clarke, 2001). This resistance comes in many forms but the most devastating in terms of its effect on change is the type where teachers pay lip service - or the 'irony of representation" (Hoyle and Wallace, 2007 p.18) to a programme and carry on as usual. This creates no discussion, no argument and no challenge to the issues that are of concern to the participants. Without the development of a change programme that is inclusive and democratic, change usually fails (Fullan, 2011).

This research project takes cognisance of the responses of teachers to the introduction of a curriculum intervention model and then explains the change experience in the context of their everyday professional lives. To test these responses I introduced a change agenda that encouraged diversity and flexibility in the learning patterns of students in an environment where the teacher's role was that of enabler of learning rather than rigid architect of teaching (Bennett and Rolheisher, 2001). Over the academic year 2011 I examined a whole range of teacher responses from the introduction phase to the implementation phase and recorded and analysed these outcomes. I then retrospectively attempted to understand the teacher responses that occurred throughout this process.

I am interested in the pursuit of inquiry - I wished to know how teachers were affected by the change process, how they felt, what they did, how their attitudes

were shaped and the level of influence they had on the success or failure of the programme. I felt that by analysing these responses a noteworthy contribution could be made to the already extensive body of work that is the literature on change.

The Research Question and the Problem

This research question deals specifically with how and why teacher respond to educational change. As a vehicle for testing these responses, a new teaching and learning programme – cooperative learning – was introduced by fourteen teachers involved in the research project into their daily classroom practices. This was conducted over one academic year and the experiences of the teachers in terms of how they managed the change were elicited from a series of focus group discussions spread out over a nine month period. The research question, although cognisant of the importance of educational change as a means of enhancing the learning experiences and academic outcomes of the students, was very much concerned with how teachers coped within the educational change environment. As such it asked a number of interrelated questions throughout the thesis. These included:

- (i) How important was the introduction process in terms of developing a relationship with the change focus?
- (ii) How important was the voluntary element to the programme?
- (iii) What significance can be attached to the clarity of the change programme in terms of the functions, both professional and moral, of the teachers?
- (iv) In terms of accessibility to the mechanisms of the change programme- what role did this play in the implementation process?
- (v) Connecting the teachers' capacity to deliver change with their normal practices was vital to implementation – how did this manifest itself over the research period?
- (vi) Communication within a collaborative community of practice (as advocated by cooperative learning methodology) is critical- what role

did this play in the project and how did this reflect the central focus of the research question?

- (vii) How important is collaborative spaces within such a programme of change - what influences do they have in successful implementation?

So this research project examines a specific issue within an explicit milieu in order to study features that could contribute to the literature on change. The specific issue was teachers' responses to a change process and the explicit milieu was the school in which the implementation of a new pedagogy of curriculum intervention was delivered. This new teaching and learning strategy was a vehicle for testing teachers' responses to the change process. However, throughout, I was conscious of the complexities of change and cognisant of Fullan's (2001) notion of the efficacy of a single change initiative and so did not want the study to be absorbed by the scale of the change problem. By focusing on a specific issue that encapsulated the essence of reform, I felt I could sufficiently challenge the boundaries of change but at the same time, make the process accessible to the practitioner. In other words this practical yet sophisticated programme of change was designed to be accessible and usable. It also had to add to the learning experience of the student (such as raising academic standards) and be applicable in the wider change context (providing relevant skills for teachers in other change situations).

Throughout this research study I have consistently referred to Michael Fullan's work on educational change. His views play a key role in terms of the central theme of the research problem. Fullan (2011) systematically puts the teacher at the heart of the change process. He also acknowledges that the change process cannot be successful without the cooperation, insight, skills and suggestions of the teachers and that it is these actions which enable the change process to engage with issues of reform and influence them. I agree with Fullan's assessment of the role of teachers in the change process and so have encouraged, within the milieu of the case study, a change environment that is transparent, discursive, and flexible, subject to modification and at all times driven by the practices and ideas of the teachers. The use of the focus group as a primary data gathering source reflects these sentiments and allows for the free flow of ideas and opinions. By default, an additional outcome was that the

focus group has in turn informed the process of curriculum delivery intervention as well as the change process itself.

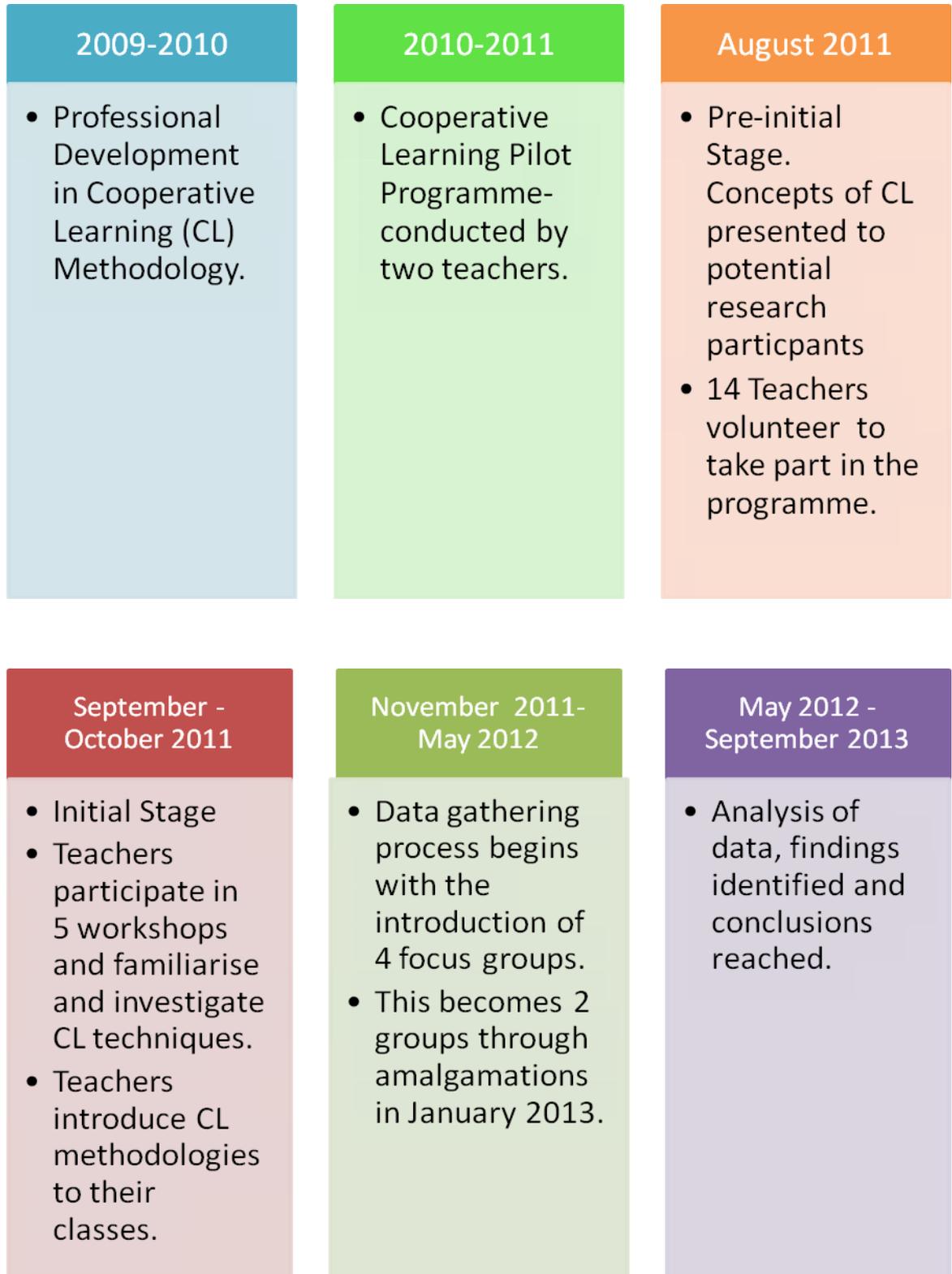
If, as Fullan believes, the change process cannot operate successfully without the input from teachers, then it would not work in Fairhill unless the teachers had a significant role to play in the process and development of the change programme. By exploring how teachers respond to change and explaining these responses, I can gain valuable insights into the complexities associated with the individual teacher's relationship with educational change and discern patterns that can be used to positively influence future programmes of change.

So I am testing how teachers respond to new change initiatives and why they respond in a particular way. During this research process I will be taking into account a number of variables not least the environment in which the teacher is operating, their emotional state in terms of their feelings towards educational change, the belief systems that influence these responses and the external factors that shape these beliefs (specifically the teachers relationship with the school leader -the author and the student). My primary data gathering strategy will involve the use of focus groups as a means of extrapolating, through discourse, the views of the teachers.

As an outcome for me as leader in the school from the research process, I hope to establish a number of guidelines that will assist in the implementation of new change practices and create an environment that perpetuates educational reform as a normal practice within a school organisation. I want the process to be accessible to all change participants and within this milieu, I hope to create a sense of ownership that will allow teachers to support the notion that part of their role as a teacher is to be an agent of change.

The Initiative

The diagram below is a graphical presentation of the practical implementation of the research study:



I used the medium of pedagogical reform in the delivery of the curriculum as a means of encapsulating the change response of the teacher participants. This came about after I and two members of the teaching staff had attended a series of lectures and workshops on cooperative learning methodology. I explored the literature that advocated cooperative learning as a curriculum delivery system – especially the works of Bennett (2001), Slavin (1990 and 1995), Kagan (1994) and Johnson and Johnson (2009) – and became convinced that this type of intervention could be useful in terms of this research study. Cooperative learning refers to a variety of teaching methods in which students work in small groups to help one another learn academic content (Slavin, 1990). In cooperative learning groups students are expected to assist, discuss, argue and assess each other's current knowledge and fill in the gaps in their understanding. The purpose of cooperative learning is not to replace teaching but to employ learning strategies that resist individualisation of the learning process. This means that learning is shared by all involved and not concealed in a way that competitive individual learning is. Cooperative learning supports competition but this competitiveness exists between groups and learning is shared at some point in the classroom setting.

I was attracted to cooperative learning for a number of reasons. At its core, it is a radical departure from traditional teaching methodology (Kagan, 1994). However its application is manageable with little disruption to student learning if its rules are adhered to. Although the types of interventions that are encouraged by cooperative learning are wide and varied, the principles are relatively straightforward and practical and this created an opportunity to develop an intervention that could up skill the study participants relatively quickly.

Cooperative learning is a group work process. However it fundamentally differs from other types of group work in that it promotes (i) positive interdependence (ii) individual accountability (iii) face to face promotive accountability (iv) collaborative social skills and (v) self-reflective and evaluative group processing. It is argued (Slavin, 1999, Kagan, 2000, Johnson and Johnson, 2009 and Bennett, 2001) that if cooperative learning practices are used correctly then

they will deliver highly sophisticated critical thinking techniques to the students involved in the group, (for an examination of cooperative learning concepts see Chapter 3).

When introducing a change programme such as cooperative learning it was important to acknowledge the circumstances in which the change was taking place. Regardless of what era we look at, teachers always seem to be under similar types of pressure - overload, burn out, pressures of student discipline, parent expectations and policy makers visions to name but a few - and this has always affected the teaching role as active participant in the change process. Lortie for example in a study conducted in 1975 found that: (i) teacher training did not equip teachers to the realities of the classroom (ii) the cellular organisation of the school meant that teachers struggled in isolation; spending most of their time physically apart from their colleagues (iii) there was no compulsion to develop a common technical culture. There were no professional learning communities and the 'teacher craft' was marked by both the absence of concrete models of emulation and ambiguity (iv) teachers helped each other in superficial ways (tricks of the trade as Lortie calls them) which meant no underlying fundamental exploration was done into the learning needs of the student and teaching needs of the teacher (v) effectiveness of teaching was gauged by informal, general observation of students (vi) having success with students was the predominant source of pride for most teachers and a major source of satisfaction and (vii) one of the most notable feelings that characterised the psychological state of the teacher was uncertainty- they were not sure whether they had made a difference or not.

These findings are as important today as they were forty years ago. Fullan (2011) comments on a number of more recent findings that substantiate Lortie's notions and that bring me to the point of this research. Change is notoriously difficult to both implement and manage and it is very easy to set up a scenario where it will fail. My objective was to understand teacher's responses to this particular change initiative within this school.

The opportunity to initiate a pedagogical change programme realistically emerged in 2009. Nearly 90% of the teachers who had been on the staff in 2004 had retired (see below) and a new, energetic staff were in situ. They brought fresh ideas and different skills with them. In the years prior to 2009 I had set up discussion forums for all new initiatives and as a staff we had developed systems where each change initiative could be discussed, shaped and implemented. However, these changes had never really focused on issues relating to the teaching and learning practices within the classroom and this needed to be challenged if we were to acknowledge and attempt to make a real difference on all its levels of school activity. Cooperative learning as a model of pedagogical change also presented itself at this time. I had attended a number of seminars and conferences on its theory and practice and the ideas discussed seemed to be accessible in terms of their applicability in the classroom setting. Two other members of the teaching staff who had accompanied me on this course were of the same view and it was decided that they would introduce these new practices in the delivery of their own lessons. This was done in an effort to establish whether the programme was useable within the school and therefore a possibility in terms of a research project on educational change.

The teachers piloted this programme in the academic year 2010 and the outcomes were very positive. They found that in order for the programme to work properly they had to organise their lesson planning with a lot more care. They also had to manage the delivery of the content in a radically different way because much of the learning experienced in the classroom under these new practices was student led. Accessibility to the content was flexible as students worked in groups to assess and apply the learning. This meant that the teacher could interact much more frequently and with a higher numbers of students than if they were delivering the lesson in the more traditional way. Both teachers felt that the learning experience of the students was very positive and the issues regarding lack of cooperation between group members only materialised if pre-planning and issues relating to delivery were neglected. In terms of these pedagogical practices fitting into forty minute classes (standard periods in Fairhill Community School), the teacher's struggled initially to get all their

lessons completed. However they soon adjusted and found after a period of time that this was not a major problem for them. The teachers were enthusiastic about the new pedagogy and were willing to assist in its implementation as a whole school initiative for the following academic year.

I held a staff meeting in late August 2011 and outlined the main principles of cooperative learning. I then asked for volunteers to assist me in the project. Eleven staff members volunteered immediately and six came to me afterwards for clarification on certain issues. In total fourteen members offered to participate and this number was sufficient to allow the project to continue. The teachers from the pilot programme then assisted me in presenting a number of workshops (five in total) to the staff in order to explain how these methodologies could be applied in a classroom setting. This process took about six weeks after which the teachers put together their programmes of work and began implementing these new practices (mid-October 2011).

The Setting

The Irish examination system at second level has a very narrow structure and focus. It usually takes no account of multiple intelligences and relies on logical/literate skills to assess achievement and learning outcomes. These assessments have a profound effect on what is taught at curriculum level and how it is taught. Cooperative learning however creates an opportunity to combine the requirements of the curriculum with teaching approaches that have the potential to achieve a higher sense of student based innovative self-discipline in an environment where critical thinking and self-directed learning takes place. The key elements in this proposal were that: (i) I was not looking for any changes in terms of the focus of the subject syllabus - it still had to be relevant to its terminal examination (ii) I was not challenging the validity of the Leaving Certificate (iii) I was not proposing that students take control of what they should learn and (iv) I was happy for these changes to be imposed on a phased basis beginning with non-exam years. I spent time with each of the volunteer participants on specific strategies that they could apply in the context

of their own subject. I hoped to achieve a situation where the teachers would embrace the challenge of pedagogical reform and develop strategies with which they could operate with a growing sense of certainty and sophistication.

I knew that there would be difficulties in terms of adapting to these new strategies and it quickly became apparent that the interpersonal dynamic was a major hurdle in terms of its application. Although this is detailed elsewhere, it is important to note that classroom relationships were an issue. In terms of the relationships that exist between teacher and student it is usually clear how where and when interaction takes place, but this change programme challenged these notions and emphasised a student-student relationship where academic discourse took place without the teacher controlling proceedings. In other words the teacher was required to step back from their position as knowledge setter and allow the learning to be cultivated by the student in the milieu of the cooperative learning group. This was a radical departure from normal classroom practice because not only was the teacher required to trust the process and relinquish control of the learning, he also had to allow the student to take charge of his own learning processes. From the students point of view the difficulty lay in the lack of experience they had in discussing their learning. They were not used to this approach to discourse and felt uncomfortable in this environment. It was therefore essential to implement a socialisation process that allowed student discourse to flow reciprocally. Students had to get use to interacting academically and become skilled in recognising and responding to shared subject material.

The Case Study Background

Reform is essential if a school is to grow and develop but what happens if its very survival is threatened by stagnation and inertia? On my appointment as principal of Fairhill Community School in 2004 I found a school in crisis and it was this situation and the measures that needed to be taken to avoid closure that influenced me in arriving at the research problem that defines this study. I struggled to change systems, attempted to establish conformity and went

through a process that arrived at the conclusion that consensus and cooperation were the only way in which a sustainable and productive change process could be achieved.

Fairhill Community School 2004

“...the world of schools is not simple: indeed it is very complex, unpredictable and often chaotic. Any practising school head teacher can attest to the extraordinary complexities, pressures and difficulties as well as the rewards and joys of the role.” (Brooke-Smith, 2003. p.1)

In September 2004, I was an external principal appointment having worked as a Youthreach co-ordinator in another part of the County. My credentials as a principal in a mainstream secondary school were untested. Although I had obtained a Masters Degree in Educational Management and had worked in an educational management role for the previous two years, I had not worked in a mainstream school for twelve years and had only worked briefly in the secondary system in Ireland as I was primary school trained in England. I thus had little knowledge of the culture of the secondary school staffroom and had no experience of managing the structures in a secondary school setting. In addition, I was an unknown entity to the staff.

The school premises had been purpose built in 1983 to a very high standard and the external fabric and internal accommodations were in excellent condition. The school was well maintained, very clean and its facilities (playground, playing field and twenty-five acre farm) were first-rate. However, within the first couple of months of my appointment, it was apparent that there existed a number of serious issues. These included a demotivated and disconnected staff, a student body that had become increasingly disenfranchised and viewed the school simply as an agent of oppression and a parent body who had been pushed to the perimeter of school life and whose relationship with the school was often very negative. According to guidelines set out by the Department of Education and Skills in their “Information Note for

Boards of Management on Whole-School Evaluation (WSE) in Post-Primary Schools” certain criteria had to be fulfilled in order for a school to be deemed satisfactory in the framework of acceptable standards as laid down by government. These standards were tested in the following areas:

- How well the school is managed.
- The school’s planning process including planning for teaching and learning.
- The quality of the curriculum and programmes provided at junior and senior cycle.
- The quality of learning and teaching in the school.
- How the school provides guidance for all students and supports students with learning difficulties or special needs. □
- How the school communicates with and involves parents and the wider community.

In my opinion much of the criteria as laid out within the areas above were not being met in the school in 2004. I especially felt that there were quality issues around teaching and learning and a particularly serious issue with the lack of a cohesive planning process within subjects and the whole school in general. Beare *et al.* (1989) saw an effective school as needing objectives, targets and achievements. Furthermore they looked at the difference between effective and efficient and found that a school could be efficient in its use of resources but not effective in terms of its outcomes for students. This was the state in which I found Fairhill in 2004. A lack of school development planning with targets and objectives was a clear indicator that the school existed in a vacuum. With ever increasing external demand for reform the consensus was that the students needed to change not the school and not the staff. However there was an efficient use of resources and the school was in a very healthy financial state when I arrived.

When Beare *et al.* (1989) talked about goal setting they required forward planning to make this possible. On entering the school I found that there had never been a planning day in the school. There were no examples of integrated

curricular planning, no schemes of work existed, there were only a few instances of in-service for teachers and all Leaving Certificate subjects were taught at ordinary level - with the exception of Construction Studies and Engineering – which begged quality issues around the curriculum. Subject choices were limited in the school although staffing levels were very high (19 full-time staff teaching 76 students in 2004). There were very few academic subjects (for example there was no Geography, History, Art, German, Music, Accounting, Computers or Religion) and special educational needs classes were usually on a one-to-one ad hoc, withdrawn basis, where the needs of the individual student were not fully determined or planned for. The use of psychological reports to generate individual learning plans was not practiced and basic literacy was delivered on the assumption that little or no tangible academic benefit would be achieved by those students availing of the service. There was very little extracurricular activity aside from one Gaelic football team and no P.E. which meant that those who were not interested in Gaelic football were excluded from any sporting activity.

The quality of teaching and learning was also a serious concern to me in 2004. Pedagogical practice was old fashioned in terms of the chalk and talk style of subject presentation and the concept of teachers being learners and vice versa (Jacob, 1999) was unacknowledged by all parties in the learning process. Classrooms were set out in the traditional style, there was no use of technology and the only medium for presenting the curriculum in the vast majority of cases was the text book. As Tuohy (1999) mentions; "... classrooms tend to be neither wholly subject centred nor wholly learning centred. The two approaches exist in dynamic tension, with teachers balancing deductive and inductive approaches in response to student capacity and the demands of completing the curriculum..." (p.151). This dynamic tension was not obvious in the classrooms of Fairhill because the focus was to cover the syllabus content in the allotted time given, whether the students were learning or not. At staff meetings it was obvious that time restraints were a major issue in this implementation process and teachers saw little value in extra-curricular activity which impacted on their syllabus delivery time. Mentioning other ways of engaging with the curriculum

was invariably met with a negative reaction based on time restraints and in the early years of my tenure I was unsuccessful in promoting alternative pedagogical methodologies with teachers. They would complain that the students were not engaged in the class which made their delivery of the curriculum much more difficult. They would not accept that lessons could be interesting and spontaneous in an environment rich in discussion and ideas – it did not fit with the school ethos that students could take control of their learning and I began to feel that many of the teachers were actually hiding behind the text book as a way of not having to find different and innovative methodologies to teach. Gettiner and Stoiber (as cited in Gutkin and Reynolds ed. (2009)) looked at effective teaching and saw high student engagement, teacher directed instruction, guided practice and feedback and effective classroom management as critical to its substance. However if one translates these practices in terms of the pedagogical approach in Fairhill in 2004, it would be fair to say that it was at odds with Gettiner and Stoiber's findings. With the didactic model of teaching and learning of the curriculum having such high priority it was inevitable that student engagement in the learning process would suffer. Gettiner and Stoiber use Carroll's (1963) model on the relationship of time and learning (where the degree of learning is a function of the ratio of time spent relative to time needed). This shows the importance of timing in the learning process and reflects, in my opinion, where the problems lay in Fairhill. Too much time was spent going through the process of delivering the curriculum and not enough time was spent ensuring student engagement in this process. With the need to finish a text book being of such high priority, teacher directed instruction became narrow which resulted in less emphasis on demonstration and discussion and more on delivering the information in a linear, non-reciprocal way. This may have worked for those students who were of high academic ability and could cope with this process but for the rest of the students the effect of having no opportunity to talk about what they learned and not being sure if they had processed the information properly (Chickering and Gamson, 1987) meant that there was always uncertainty around how and why learning took place (from both a teacher and student perspective). This in turn resulted in

poor academic performance and a missed opportunity by the teachers to unlock, sufficiently, student potential and creativity.

Communicating with the wider school community was also problematic. There was no parent or student councils and the Board of Management had no clear focus in terms of its role in the school. There were no initiatives in place to link with the local community and the only relationship the school had with outside agencies was those that generally had negative connotations (such as the Gardaí, social workers and Health Boards). Fullan (2011) argues that learning organisations respect their environment and interact with the ideas that are part of it. Living within a community necessarily means taking on board its dynamic complexity which in turn means growing with the community in a positive process of change. This was not the case within the school community in Fairhill. The traditional stance of engaging with the community, only when necessary and never in the spirit of equality, was the practice in 2004 and this had a crushing effect, I believe, on the learning processes in the school as well as a profoundly negative effect on how the school was perceived within the community.

Applying the lens of whole-school evaluation, some of the most significant problems lay in the area of management. On the surface the school was well managed. Financially it was in good order, the students were availing of an effective book rental scheme, there was adequate heating and lighting and there were no issues regarding working materials for teachers and students alike. Timetabling was efficient and all teachers had clearly defined roles in terms of their teaching duties and other responsibilities. This then was an efficient school (Beare *et al.* 1989) yet in terms of its effectiveness (measured by student outcomes) it fell well short of acceptable standards. When distilled to its common denominator, the problem with the school lay in the fact that the school leadership did not have a teaching and learning vision. Sergiovanni (1996) maintains that without vision school leadership is redundant. School leaders work towards their vision in a number of ways; they make it clear in what direction they want to go, devise clear strategies in which success can be

achieved, give teachers the tools and the environment to make it happen, work with teachers to embrace the vision and take ownership of it and most importantly allow degrees of flexibility within the vision framework so that it can develop in relation to the needs of the teacher, students and school community as a whole. In Fairhill few of these elements were being embraced and although the school environment was being managed on one level the essence of proper school leadership, especially leadership of learning, was not. As Senge (1990) says:

“....leaders are designers, stewards and teachers. They are responsible for *building organizations* (sic) where people continually expand their capabilities to understand complexity, clarify vision, and improve shared mental models – that is, they are responsible for learning.” (p.340)

The psychodynamic theory of leadership (Brooke-Smith, 2003) is useful as a way of explaining the relationship between the principal and the teachers because it identifies the fact that the leader and follower are mutually dependent on each other. This can lead to potential hostility and a breakdown in relationships because the follower depends on the leader to identify goals, identify ways of reaching them and lead the way. When the leader fails in this he can attract the disrespect and animosity of the follower which in turn can impact negatively on the functions of the follower in their everyday role. In Fairhill Community School the role of management had become confused. Instead of it being a focal point for clear direction, it had become ambiguous and inconsistent. It appeared that the principal's role had evolved over time to become so conciliatory that it was impossible to make decisions. In an effort to keep everybody happy, nobody was happy. Discipline began to deteriorate due to the fact that there was no real code of behaviour which meant that parents could challenge all management decisions on the basis of their subjectivity; teachers were taking advantage of perceived weaknesses in leadership and management (for example some staff would take foreign holidays during term time without this being recorded or take substantial sick leave without having to provide medical certification) and all the time serious harm was being done to

the reputation of the school. As a symbol of this history of a lacuna in leadership and management, student and teacher morale also suffered. The student population had also seen a significant drop in numbers between 1997 and 2004 in the order of 70%, (with 35% of the student body leaving during the academic year 2002/2003). This was catastrophic for the school and in real terms meant that it was becoming unviable as an alternative to the other schools in the town. Therefore, job security was becoming an issue for the staff. On my appointment in September 2004, I observed a highly demotivated, demoralised and divided staffroom. Disenfranchisement and blame were key characteristics. The blame was mostly focused on the school management and a culture of mistrust had developed to the point that active resistance to management seemed to be the acceptable norm. Disenfranchisement was symbolised by a continuous and focused resistance to any initiative, especially those initiated by the Department of Education. This resistance was underpinned primarily by a strong union presence in the staffroom

This situation was understandable, not new and not unique to Fairhill. Tuohy (1999) recognised that teachers did not like to be changed; that they resented external change that was imposed without taking cognisance of their realities. In Fairhill, the teachers had experienced a vibrant and effective school in the past and felt they were doing nothing different and so the problem must lay with others. As the new Principal I began to realise that without a focused plan and clear objectives on dealing with a more diverse school community, teachers would understandably struggle to comprehend the changes that were taking place within the educational culture of Ireland as it moved into the 21st century. This is not to be disrespectful to the abilities of the teachers – that was never in question - the skills needed to cope with demands of students were complex and needed to be developed through clear direction and planned in-service and because this was not forthcoming teachers were at a serious disadvantage when it came to dealing with issues as they arose. I viewed the repercussions of this situation as creating a systemic failure in the school which affected all aspects of school life, both academic and social.

It was obvious that Fairhill needed to change but the kind of aspirational reform I had envisioned at the time of my appointment was impossible to achieve due to basic systems not being in place to support it. I had to address issues of discipline, attendance, early school leaving, exam attainment and general teaching practices before I could begin looking at change in terms of fundamental improvements at a deeper level. My vision of creating an environment where dynamic teaching and learning initiatives could be established in an atmosphere of vibrancy and collegiality was seriously challenged by more pressing foundational matters.

So for the first five years after 2004 there was little opportunity to work with the staff on issues relating to transformational teaching practices. The systems that allow a school to function properly had to be developed, delivered and sustained in order to stabilise the environment. There was no point in attempting to reform pedagogies unless appropriate supports were in place to allow this to happen and this takes time and cooperation. With the new cohort of teaching staff largely in place by 2009 the opportunities began to present themselves in terms of effecting change on a deeper level.

Research Methodology

Change is a complex social phenomenon and how it is measured is equally complicated (Fullan, 2001). This pedagogical change programme was designed to fundamentally alter practices that have endured for decades and allow for long term sustainable change. There was also the challenge of gathering data that was reliable and valid and that had the clarity to enlighten research on how a change initiative was received and responded to by teachers. The research project relied on a description and explanation of the responses of teachers to a programme of curriculum intervention that reformed pedagogical practices. As such it had to take into account teacher emotions in terms of their hopes, fears and aspirations. This needed to be examined in a way that allowed for freedom of expression and the development of ideas. In deciding how to gather relevant and valid data, it was crucial that the complexity of the subject matter be aligned

to appropriate techniques that allow the information to unfold, cascade, roll and emerge (Lincoln and Guba, 1985). Giving a voice to the teacher in the process of change would naturally appear if the environment for data gathering was appropriate. Incorporating not just the spoken word, but also the ironies, contradictions and tensions that surfaced in the change process adds depth to the narrative and makes for much richer material.

The focus for my methodological intervention was to elicit the responses of teachers to a change initiative or programme that was based around a new teaching and learning strategy. This strategy was used as a platform from which to test responses and explain them. In order to become fully conversant with why teachers responded in the way they did to this new change programme, it was important that the teacher had a voice that was not only heard but acted upon. By designing a set of research practices that allowed this process to happen I found myself in two roles: an enabler as well as a researcher. Therefore, qualitative methodological practices were used.

The attraction of qualitative research is that it begins with questions but that its ultimate purpose is use (Rossman and Rallis, 2003). The researcher uses methodological building blocks to create patterns which are then interpreted in a way that becomes informed knowledge in the context of the real world. The empirical nature of qualitative methodology allows for the use of the physical senses and that was very important in the context of this research project because it was the interpretation of non-verbal communication which often yielded the richest information. By watching and listening, I attempted to make sense of the world of the teacher and how the change process affected them in their teaching and learning.

Rossman and Rallis (2003) looked at a number of characteristics of qualitative methodology and some of these features resonated with the research project. The setting of the natural world was crucial to the long term effectiveness of the project design programme because it was within this setting that change took place. The success of the design programme depended on where the change

process was located. If it was not placed within the milieu of the teachers' world (and their experiences) then it would not hold the same significance for them and ultimately become a policy directive that they had little or no ownership of and would take barely any heed of (Tuohy, 1999). Thus working within the field of study allowed for a much broader range of learning experiences and it also acknowledged the development of relationships where participants could have a voice that influenced the direction of the research and ultimately define it.

I had to make sense of the information and this was achieved through a number of different primary techniques. By interviewing, observing and gathering documents I began to recognise how the study participants made sense of their world. I also acknowledged that there was messiness (Rossman, 2003) to this world that could not be explored through laboratory conditioning (although quantitative methodology does allow for randomisation and standardisation). I gained an understanding of human experience through the exploration of this messiness and my challenge then was to interpret this information in the context of my focus on change. As Rossman and Rallis (2003) state;

“...qualitative researchers...look at social worlds holistically, as interactive, complex systems rather than as discrete variables that can be measured and manipulated statistically. They describe and interpret rather than measure and predict.” (p.9)

The lack of structure and rigidity in the qualitative methodology framework allowed the information to flow in a non-linear way so there was looseness to this hypothesis which meant that flexibility could be built into the research process that allowed for modification and change when necessary. By rejecting the need to prove a point I was allowing the knowledge gained throughout the process to inform the ultimate outcomes of the study. The critical aim of qualitative research is to transform data into information that can be used. This meant that the data had to be useful, meaningful and contextually accurate. This then was the challenge of such a qualitative study.

Limitations of the Methodology

The most appropriate methodological approach to this research study is through the framework of a qualitative approach. However it is important in this respect to be cognisant of the limitations attached to such an approach. If, as in my case, the researcher has multiple roles, it may be difficult to have an objective view of the research concepts as they are gathered, which may cause an over-identification with the participant's views which may submerge with those of the researcher. In this case it has to be a prerequisite of the researcher to keep an analytical distance from the other roles (in my case administrative leader, change leader and participant observer) and to ensure that reflection and realignment are constantly addressed within the day to day dealings of the research data.

How the material is measured is also problematic within the framework of a qualitative approach because it is interactive dependent. In the case of this research project it has always been the intention to allow the data to develop and flow and although it is not possible to include all the information recorded, it is important to identify the themes that have arisen from the data and group them in a cogent way so as to tell the story of the teachers experiences of educational change. In doing this I am attempting to generalise on specific themes but am assisted in this endeavour by the theories on educational change. However this qualitative approach can also be high-risk and low-yield because it takes so much time identify and understand what is actually being .Added to this the bias, idiosyncrasies, and subjectivity of the researcher and the case study participants and it becomes necessary to strictly adhere to the procedures as established in the methodological framework.

Constructivist Paradigm

A key element of this qualitative research project was that it should evolve as it progressed and as such building flexibility into the research design was critical. According to Marshall and Rossman (1989) this could be done by demonstrating the appropriateness and the logic of qualitative methods for the

research question and devising a research plan that included elements of traditional plans but reserved the right to alter or change during data collection. In order to extrapolate teachers' responses to their experiences, the model of enquiry needed to be flexible and interpretive when new information arose. This model acknowledged a kind of constructivist paradigm where truth was dependent on perspective but did not reject outright, some notions of objectivity (Stake, 1995 and Yin, 2003). Pluralism and not relativism, was stressed with the focus being on the "circular dynamic tension of subject and object" (Miller and Crabtree, 1999, p. 10).

Case Study

This research project examined teachers' experiences in the context of the introduction and implementation of a 'new' teaching and learning approach within their classrooms. It introduced a change programme that could be used by the research participants to implement change in their pedagogical practices. It therefore needed to be placed in a setting where these new practices could develop. Simon's (2009) definition of case study resonated with the objectives of this research project and as such I felt it appropriate, within the context of its central theme, to place the research study within this milieu. She states:

"Case study is an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution, program or system in a 'real life' context." (p.21).

The importance of her statement in the context of my research is that an exploration into teacher responses to change is done within the context of a real setting, where real things impinge on real processes. Although I was examining a specific phenomenon (Merriam, 1988), it was the context of the reality that allowed it to express itself in an original and meaningful way. I was also attracted by the fact that case studies did not demand particular methods for data collection, they lacked control over the variables involved, recorded uniqueness and allowed for a narrative in which the participants could tell their

story. The case study model also permitted the investigator and the participant to be up front with their biases and have subjective perceptions. (Goetz and LeCompte, 1984). Furthermore, Merriman (1988) reflected that case study practices allowed for the process of building a theory (in this case why teachers responded to a change practice in the way they did) to take place. She believed this setting was either a “receptacle for putting theories to work” or “as a catalytic element in the unfolding of theoretical knowledge” (cited in Eckstein 1975, p. 100)).

Denscombe (2007) explored the spotlight characteristics of the case study. This was relevant to our purpose as I intended to look at change in the context of a specific action. This also allowed me to take an in-depth look into the processes that shaped change. The priority was to see how teachers responded to this change and that is why it was important that the case study setting was the preferred milieu for this investigation. Whereas for example surveys and questionnaires would give you some flavour of the question posed, it is the in-depth investigation and the focus on relationships within the social setting that are so important for appropriate understanding of the central question. Determining the complexities of the interconnectivity of the various contributors to the study would allow for an exploration of the actions of the teachers in the challenges that they had faced which would then inform the final analysis.

The benefit of using the case study as a research methodology is rooted in the fact that it does not seek to control behavioural events and that it focuses on contemporary events (Yin, 2009). It also promotes exploration and description, explanation and analysis and comparisons and generalisations (Davis, 2006). My research study did not require a pre-emptive theory and although small in scale did allow for the generation of some causal explanations. It was restricted in that it would not be able to claim statistically significant patterns and its intention was never to make generalisations about teachers and the change process. However by using the single case study structure, I was able to reflect on a moment in time when an organisation was focused on change and therefore add to the body of literature that deals with educational change.

Piloting the Change Initiative

Initially I piloted implementation of the change initiative within the school. This pilot happened throughout the academic year 2010 and was undertaken by two teachers who had completed the course on cooperative learning. Its main focus was to establish whether cooperative learning was a suitable vehicle to test the notions of change that were central to the thesis question. It was also important in refining my data collection plans (Yin, 2009) in respect of both the data information and the procedures around its distillation. However I was mainly interested in determining how the two teachers in the initial pilot coped with the changes, how they reacted to my inputs and the feedback practices which was going to be so critical in the data gathering process. I did not anticipate any specific role for the teachers and gave them little formal instruction on how to proceed. Although we were all trained in delivering cooperative learning techniques it was important to recognise how it could be delivered in the context of the culture of the school. The understanding of the two teachers involved at this stage was crucial because their experiences would place them in a supporting role for their colleagues the following year. These teachers had a dual role- they piloted the programme and then delivered assistance to the other teachers involved during the research investigation.

The feasibility of the study needed to be tested if the change process was to work. I was concerned to find out if the cooperative learning approach was curriculum friendly, had easy access to resources and could be implemented within the structures and limitations of the school day (especially in terms of the 40 minute classes). I did not focus on the details of the personal transformations (a key aim of the broader study) because I was more interested in ensuring that the vehicle for testing change had a practical application. I also wished to test the relationship between the practicality of this application and the literature that supported its use.

Once the viability of the pedagogical intervention had been established I held a staff meeting and outlined the proposal. I outlined the main concepts of cooperative learning and asked for volunteers to engage in the initiative and participate in the research project. Fourteen teachers volunteered to participate. I explained that there would be a number of workshops so as to allow teachers to familiarise themselves with cooperative learning techniques. These workshops were concerned with the theory and practice of cooperative learning and took place in August and September 2011. There was then a period of time for the implementation process. This was approximately eight weeks, during which time I spoke to each of the teachers on several occasions about practical application issues as they arose and sat in on a number of classes to see the methodologies in action (I was invited into these classes). After these sessions the teachers were required to identify a class group who they would work with. The teacher had full autonomy in the selection process with the only stipulations being that they stayed with this group for the year and spent at least two classes per week implementing cooperative learning. The teachers decided to target one group (second years) so as to maximise the impact of the curriculum intervention programme. They also decided to start planning interventions for the incoming first years for 2012/2013.

Data Gathering Procedures - Focus Groups

This project is about change and change practices. A fundamental principle of successful change is its ability to evolve and develop as the process takes place (Fullan, 2011). The use of the focus group as a primary source of information gathering not only mirrored this sentiment but it also allowed for freedom of discourse which was central to the project. I was also attracted to the flexibility that is inherent in a loosely controlled discursive environment (Morgan, 1997) and felt that teachers examining issues as they arose and developing each other's ideas would enrich the information as these ideas formed and matured. I wished to explore the nuances of change as well as the explicit experiences and because this subject is complex I felt that a discussion forum would allow me the most appropriate access to such information.

Fourteen teachers participated in the project and were initially divided into four groups. These groups self-selected. This was important in the context of the freedoms that were attached to the process. If teachers were manipulated into certain groupings I felt they could potentially mistrust the point of the exercise which was to allow them the flexibility and autonomy to adjust in their role as change agents. The focus groups met between November 2011 and May 2012 on a monthly basis (twice in April). The initial four groups of three/four members merged into two groups of six/seven members after two sessions because teachers felt that a larger number of participants would mean less frequency of meetings and that their contributions would generate a wider range of ideas which would add depth to their practice. The study participants although designated a specific group often interchanged for expediency. I assigned each teacher a pseudonym which was used consistently throughout the reporting. Each meeting was recorded for oral verification. A letter explaining the conditions of the meetings was circulated to the research participants and all signed that they fully understood the process and accepted the conditions as laid down (see Appendix One). Confidentiality was also important and its role in the process was outlined clearly at the initial meeting. The group responses have been amalgamated for ease of access to the information. Fairhill Community School lent itself favourably to this research study because the structure of the environment allowed for freedom of access to both teachers and classroom settings. This enabled the study to take place under one roof and in a controlled environment where access was not an issue.

Within the focus group milieu I was keen to see how teachers responded to change and so the questions posed at the beginning of every session reflected this desire. I wished to know what was working and what was not, to tease out how teachers coped with the implementation of a new way of working and any other issues that came up as a result of this change process. The discussions that took place within the meetings were on the whole developed on the basis of what interested the teachers even though some direction was offered at the beginning of each session and I intervened in the flow of the discussion only

when it veered radically away from the general focus. My intention then was to allow the flow of information to enlighten the project. The first focus group met in November 2011 and a period of socialisation took place where teachers became used to being recorded and interacting in such a formal manner (Morgan, 1997). This process took very little time and rich information was collected from the very beginning.

The nature of the discussion was self-reflective. The thrust of the research was to analyse how teachers responded to change. The cooperative learning model was a fundamental departure for most of the teachers. They faced new challenges, had to reflect on what was working well and what was not. They also had to gauge and interpret the reactions of the students and share their experiences in terms of the implementation process. They did this through the medium of the focus group. The reason for using focus groups as the primary source of data gathering lay in the importance of developing the theme of change as the process continued. If I had decided on one-to-one interviews or questionnaires, it would have restrained the freedom of the group to develop and extrapolate themes as they came about. As Morgan says (1997),

“The hallmark of focus groups is their explicit use of group interaction to produce data and insights that would be less accessible without the interaction found in a group.” (p.2)

The focus groups were made up of trained and experienced teachers and so I did not have a problem in terms of the lack of homogeneity within the participant group (crucial for the alignment of the discussion topic). A discussion took place with the teachers as to how to progress the makeup of the focus groups. They decided that the most effective groupings lay in the mix of diverse subject areas. So for example, Maths and English and Home economics and History combined so that they could explore differing practices in these areas. According to the general consensus, these focus group dynamics would foster more variation which in turn would generate a wider discourse than if similar subject areas were grouped together.

The group members had an opportunity to pursue what interested them and because each group's contribution was independent of the other groups (I was not looking to compare and contrast) this allowed for a richer variety of information garnered from relatively few providers. My role as researcher/moderator was to start the discussion with a basic topic for debate and allow the process to flow. The discourse that ensued from the focus groups was used in two ways. Firstly it informed the research project in terms of the issues raised with regard to the process of pedagogical change and the teacher's responses through this change process. Secondly, it allowed the teachers to take from the discussion a variety of suggestions from their peers on how to progress this new approach in their own classrooms.

The extent and nature of the analysis of the findings from the focus group discussions were directly related to the goal of the research study. There is no doubt that the nature of the discussions dictated a high degree of subjectivity and this I considered as both necessary and desirable. The repeated examination of the transcripts from the discussion forum was necessary and these were interpreted in consultation with notes I had taken as the researcher/moderator which reflected the discussion nuances and other intangibles. In this way it was hoped to achieve an understanding of the phenomenon under investigation. The richness of the intercommunication between teachers' ideas within the focus groups was the key to this analysis. As Rossman and Rallis (2003) mention, ideas, beliefs and attitudes do not form in a vacuum; they are clarified through discussion. The focus group method in this study allowed for such a forum so as to engender the development of discourse in the narrative of the participant.

The Role of the Researcher and Issues of Validity

My role as researcher in the case study had the potential to conflict with my role as principal within the school. It was also possible that it would influence the research outcomes. This situation impacted on issues concerning validity,

ethics, reliability and reflexivity. Patti Lather (1986), however, challenged the notion of value neutral outcomes in social science research and recognised the importance of the researcher in terms of his transformationary role. If my social ideologies influenced my desire to see pedagogical change, this had to in some degree influence my perceptions of the research data and outcomes. It was important to recognise my subjectivity in this instance and acknowledge that I wanted to change the learning environment and experiences in the school. In my role as school leader I wished to influence the culture of teaching and learning but my dual role dictated that I balance the need to push forward change as a viable option and simultaneously listen to the narrative of the teacher whose stories would define the change process. I was also aware of the fact that I was immersed in the culture of the very systems I was attempting to influence. However I had to operate in an environment that allowed for objective interpretation as far as was possible within the context of my role as researcher and practitioner in the field. Lather (1986) used Cronbach's (1975) idea of reconceptualising validity to support the assumption that research validity should not be placed in a supportive role in the establishment of certain interpretations but exist to find out what was wrong with them. In the framework of this research study the teachers' narrative was essential in identifying and interpreting their responses to this change programme.

As I was so closely involved in the research field, it was important to outline my role as the instrument of the study (Rossman and Rallis, 2003). Qualitative research by its very nature is interactive; however my position as principal teacher in the school added another dimension to the relationship. As my role was to make meaning of the information gathered, it was crucial that my personal biography was included in the process of interpretation otherwise the 'notorious ambiguities' (p.185) that Alvesson and Sköldberg (2000) discuss between the researchers text and the realities studied would challenge not only the efficacy of the data gathering process, but also the data itself. As the researcher was never *tabula rasa*, it was important that when interpretation took place, I centred myself in the research dimension in a manner in which hermeneutically I could embrace the research field both in terms of discourse

and practice. Trinh (1992) acknowledged the researcher's role and his impact on research when he said; "...always point to the process of constructing not truth but meaning, and to (one) self as an active element in the process." (p.182). Adler and Adler (1987) discussed the notion of membership and outlined the function of the researcher as a peripheral member of the research study. The study participants, being fully conversant with the issues concerning my dual role fully accepted its limitations. As Rose (1985) states;

"There is no neutrality. There is only greater or less awareness of one's biases. And if you do not appreciate the force of what you're leaving out, you are not fully in command of what you're doing."

Betti's (1967: 1980) argument about the dangers of pre-understanding were relevant here because the object of understanding could easily disappear under the assault of the subject if the frames of reference were not established as per his canon on the hermeneutic autonomy of the object. In other words it turned dialogue into monologue and that is of no real benefit in a study that derives its focus, and ultimately its outcomes, from discourse.

However in defining my role I need to be cognisant of the validity of my position within the research milieu. I need to be aware of the truths (Richardson, 1994) and position myself in a way that least disturbs the scene of the research environment which in turn should limit the problem of participants saying what they think the researcher wants to hear. By using a respondent validation framework to check for understanding and meaning, it is possible to obtain a clear perspective on what has been established within the data gathering process. By creating reciprocity between all research stakeholders, there is the opportunity to reinforce notions and ideas as they are developing but also highlight deficiencies in the communication process that might lead to distortion, misunderstanding and/or misinformation. .

Lather (1986) proposes that four factors should come into play in order to strengthen the researcher's position and counteract bias that undermines the research process. These are: (i) triangulation, which relies on multiple data

sources, methods and schemes to contribute to worthiness, (ii) construct validity which involves a systematic reflexivity which confronts the daily experiences of the research participants' lives, (iii) face validity where findings are recycled in the light of research participant reactions and (iv) catalytic validity which recognises that transformations can take place within the research process. By taking cognisance of these processes I can position myself within the research milieu in a way that allows for the separation of my roles and thus a higher concentration of objectivity, impartiality and fairness within what is after all a highly subjective research environment.

Ethical Issues

In a study such as this there was always going to be the potential for certain ethical conflicts to arise. As principal in the school where the research study was being carried out, I undoubtedly had a certain influence on the conduct of the participants of the study. It is important to acknowledge that the volunteers of the study may have felt compelled to agree to participate in both the intervention programme and the focus group interviews that ensued. The availability of clear guidelines and an assurance of confidentiality together with an explicit caveat that this was a not only a voluntary exercise but one in which honesty was paramount in the context of responses to the change programme, went some way to alleviating these issues. Out of the twenty full time members of teaching staff fourteen accepted an invitation to volunteer for the research study and six declined.

Lichtman (2010) suggested a number of guiding principles which would enable a research project such as this to be ethically sound. The first principle was that the research or its consequences harmed nobody directly or indirectly associated with it. Secondly privacy and anonymity had to be assured for both individuals and the institution. All participants had pseudonyms and the institution in which the study was set was not visually recorded, located or named. Thirdly, all relevant transcriptions were distributed amongst the participants for editing and verification and all transcriptions were held in a

secure location. Fourthly, all information was treated in the strictest confidence and no information was challenged. Fifthly, all participants of the study could have a reasonable expectation that they would be informed of the nature of the study as it progressed and each volunteer had the option of opting out at any time. No participant was coerced into agreeing to become a volunteer. All volunteers were adult so there were no issues around minority interviews. Sixth, all participants could have a reasonable expectation that their personal lives would not be intruded upon and all participants could equally expect me as the researcher to behave appropriately towards them at all times. Finally in terms of data interpretation, the participants could reasonably expect that I avoid misstatements, misinterpretations or fraudulent analysis. All data was used to fairly represent what I heard and what I saw (as far as is possible in a subjective interpretation of the findings). With regard to data ownership, I as the researcher own the work generated from the data.

Each participant clearly understood their role within the research. Any recording of information was clearly established prior to interview and I asked permission of participants for the use of any extra (appropriate and relevant) information that emerged outside of the focus group interview. Any notes/written observations were shared with the teacher and his permission was required for it to be used in the data analysis.

I will use the British Educational Research Association (BERA) Ethical Guidelines for Educational Research 2nd Edition (2011) as the parameters in which to conduct this research project. I acknowledge my role and responsibility in extending and interpreting the specific educational issues that will arise in the pursuit of this thesis. I also acknowledge and accept the underlying principles of BERA in the context of having respect for:

- The Person
- Knowledge
- Democratic Values
- The Quality of Educational Research
- Academic Freedom (p.2)

In dealing with the participants of the research study I am not only aware of those actively involved in the research process (the teachers) but also those who have a passive role (the students and the wider school community). In this regard I will treat all participants with dignity, respect and sensitivity and endeavour to engage all research contributors in a manner that fosters understanding and appreciation of the research objective and at all times, participants will be clearly informed of their role within the study. I am cognisant of the multiple roles in which I will be engaged and will continuously reflect on my own practices as the research impinges on others.

In terms of my professional obligation to the community of educational researchers I will endeavour to protect the integrity and reputation of the research community and conduct my research to the highest standards. I will adhere to the principles of the ethical guidelines as established by BERA by ensuring that I do not falsify or sensationalise my findings, distort or leave out significant information, be defamatory of other researchers or compromise in any way the objectivity of the research programme or process. Finally I intend to communicate my findings and conclusions in a clear and concise manner and in a language that is appropriate to the intended audience.

Research Environment Summary

The role of the researcher in a qualitative study such as this can be problematic when his involvement within the study milieu is on more than one level. In this particular case being principal and researcher had the potential to cause conflict and distort the research findings. It was therefore necessary to clearly acknowledge this dual role and ensure that although there was the potential for transformatory action, the essence of the voice of the teacher participants drove the fundamental tenet of the researcher findings. Trust was a major issue in this study environment. Tshannen's (2004) five key components of trust were a useful basis from which to define the role it played between me as principal and researcher and the study participants. She believed that benevolence, reliability, competence, honesty and openness were essential if a school was to achieve

any degree of success within a change programme. Furthermore Bryk and Schneider (2002) considered the relationship between the principal and teacher and found that teachers were attracted to a principal who espoused clear visions for the school, distributed resources fairly, appropriately and with transparency, took an interest in the professional and personal well-being of the teacher, put the needs of the students first (above personal or political considerations), encouraged teachers to speak without fear of retribution, allowed the teacher to take risks and dealt firmly but fairly with problem teachers. In the context of this research study I had introduced the change initiative at a time when this trust was established. This created a readiness to participate in the study in an environment that fostered mutual respect and a willingness to engage in new change practices.

Throughout the research study I balanced my role as principal and researcher in a transparent and impartial manner. I allowed the voice of the teacher to be the focus of the data gathering process and drew conclusions solely based on what they felt, thought and said. This was the basis on which I built a contribution to the discussion in regard to the change process and the teacher.

The research environment was also important in that I was familiar with it, had open access to all research participants and was involved in the curriculum intervention process from the beginning as initiator of the programme. My position in the school meant that I had open channels of communication with the teachers throughout the duration of the study and this allowed me to analyse issues as they arose in a reflective manner. The opportunity to use focus groups in a way that was adaptable and secure added to the flow of information and a flexible and discursive learning environment was established that often transcended the research study and informed practices in the teaching and learning environment of school.

Chapter Progression

The thesis is laid out in five chapters. It examines the literature on change, contextualises the research project, presents and analyses the data and draws conclusions and recommendations. The chapter on the data analysis is divided into three subsections according to the chronology of the process.

Chapter Two

This chapter focuses on the literature associated with the change process with a specific emphasis on the relationship between teachers and change. The role of the other key stakeholders is also examined because the sustainability of change relies heavily on all partners in the process and if one element fails then change fails. I specifically identified as influential the role of the school leader and the student. I explored the fragility of change but also the benefits derived from a dynamic reform that could transform the teaching and learning in a system that is challenged by restriction. I also examined the relationship between the researcher and the practitioner and found that a potential source of best practice was being ignored because of the challenges that exist between theory and practice. If there was an opportunity to combine these elements into a workable forum the benefits derived could be critical to the success of the developmental process and the implementation of change strategy into the future.

Despite a huge amount of research on the subject, change is notoriously difficult to achieve. So many factors need to be present for it to survive and the research shows how any missing element can be catastrophic to its success. The purpose of the literature review was to tease out ways of achieving success and this led to clear patterns of systematic cooperation and attention to detail. It also highlighted the need to bring together all parties in a forum that allows for democratic discourse (transversal discourse) and ownership of the reform programme.

Chapter Three

This section contextualised the study. I explain the momentum that came from my study of cooperative learning and take a close look at these strategies in terms of how they informed teaching and learning practices. I place these strategies within the school setting and explore how they affect both teachers and students in their everyday teaching and learning lives. I also describe in detail the processes that took place that specifically challenged traditional forms of pedagogy and describe my attempts to transform these strategies into dynamic and modern methodologies. This chapter also explains the importance of developing change strategies that have potential to be sustainable in the long term. I outline how important workable and accessible change is to the project and the significance of teacher notions of ownership within the context of the implementation process. This element makes this study different because although I am testing reaction to change, I am carrying it out within a framework that is set up to succeed. This did not mean that it would succeed but my intention was always to design a programme that had real success potential.

Chapter Four

In this chapter I present the data. The data is distilled from approximately forty hours of recorded discussion and has produced valuable information and insight into teacher's perceptions of change. The focus group forum worked extremely well in terms of eliciting views and opinions and the interactions within the groups created a richness that I feel would have been impossible to achieve using any other methodology. I use this chapter to present a story of the challenges that came with implementing new change practices and issues that the teachers faced in leaving their comfort zones and exploring new ways of delivering the curriculum. Much of the information relates to the teachers relationship with the prescribed curriculum and it was interesting to note the impact this relationship had on notions of change. The chapter is divided into three sections. This reflects the introduction period, the implementation phase and the outcomes of the intervention.

Chapter Five

This chapter examines the reasons behind the responses of teachers to the change programme. What emerged from the research were three major factors which significantly influenced the reasons teachers responded to change in the way they did. These factors are; (i) the nature and the way the programme was introduced in the initial stage, (ii) the influences of the belief systems of the teachers when interpreting this change and (iii) the external factors that shaped teachers understanding of the change process and the tangible issues that arose out of implementing a new teaching and learning strategy within an established curriculum.

I make some recommendations in the light of the research findings that might be applied to educational change within any school organisation. These recommendations are intended to inform sustainable school development and improvement in the short to medium term.

Conclusion

This study is concerned with describing and explaining responses to a curriculum intervention programme in the setting of a small vocational school. It is a case study in which I as the researcher was also the principal. I was concerned that the change agenda be viable because I wished to examine reaction in terms of a successful programme. Imposing a change process without taking cognisance of all the nuances that contribute to its feasibility, could have, I believe, left me with data that showed disenchantment, negativity and resistance. By attempting to create a workable change environment, I felt the information gathered would give a different set of variables that would enlighten the process and enable it to be sustainable and effective.

I chose to look at change from the point of view of the teacher and in doing this attempted to create a collective approach in which the teacher had rights in the implementation process that could be exercised when required. The act of

looking for volunteers to pioneer the programme was important because it created commitment, gave teachers tenure within it and allowed them to develop in the context of self-expression in their daily professional lives. In my role as change initiator I undoubtedly had an agenda and this was recognised by the teachers. However, the way the process was formulated and the input the teachers had in the programme created a mutual understanding that allowed this process to develop unhindered. The more I established my role as observer, the more the teachers took ownership of their changed circumstances. This meant that I could move between my roles as change initiator and school leader to researcher and in this way maximise the benefits of my dual function.

Change is an essential element in the life of a school. However it has to be well developed, dynamic, democratic and meaningful if it is to be successful. What is more, it cannot be confined to small scale improvements and quick fix strategies. It has to be delivered on a system-wide basis but starts with classroom practices. This study attempted to implement a process that not only challenged traditional practices, but brought these practices out of the classroom and into a forum where the issues associated with pedagogical practices could be debated, challenged and improved. This gave the change programme a solid platform and so a chance to work. How teachers responded to this was crucial for it to be successful and it is this notion that was so important in the context of this study – if I could establish patterns within these responses then there was the possibility that intervention could be made to achieve sustainable and successful change practice.

Throughout this study what the teachers do, say, think and feel has been critical. How teachers rationalise change, how they allow it to influence their professional practice within the classroom and ultimately how this affects the school environment and the learning prospects of the students in their care is important in the context of successful and sustainable change. By analysing some of these elements it was hoped that this research project could make a

contribution to the debate on educational change and shed more light on the complexities of the process.

Chapter Two - Literature Review

Introduction

This chapter will introduce the reader to aspects of change that are relevant to the central questions of this research - how teachers respond to change. It will outline the major themes and give an analytical overview of the main points of change theory. It will explore research which has been concentrated on educational change and in particular examine how teachers respond to change and the environment necessary to allow this change to successfully take place. It will also look at some of the main actors in the change milieu namely the school leader and the student and examine the impact these players have on teachers and their responses to change.

I am interested in finding out how teachers respond to change in an effort to explain these responses. Although the literature in this regard is comprehensive in terms of explaining wider change practices, I feel that focusing on a set of pedagogical interventions will add to this body of literature and contribute to the arguments on change responses. Using a particular curriculum intervention tool such as cooperative learning means that I have to focus on both the change process within the school environment and the change process within the classroom. Because teachers have to adjust their pedagogical practices, I have to examine the literature on how they manage this. I am thus concerned with focusing on literature that deals with teachers' emotions, beliefs, sense of self, sense of students and the impact of staff development programmes on the implementation of change practices. I am also concerned with the impact school leaders and students have on teachers as they respond to the challenges of pedagogical and wider change practices. It is my belief that these external factors have a crucial part to play in how teachers internalise, make sense of and cope with change.

Throughout the research for this dissertation, I paid particular attention to Michael Fullan's theories on educational change. His ideas and suggestions

had a profound effect on the way the change initiative was structured and developed in the first instance and therefore on how it evolved. This research study confirmed a number of Fullan's ideas on change implementation especially in the context of the teacher's role and the change environment itself. So this literature review takes account of teacher's notions of the change process. The examination of the literature will inform the study in the context of how teachers respond to change. I have used a wide range of sources to assist in this endeavour and have focused on teachers views on their performance and style in regard to the change process. I have also explored the emotions that link teachers' identity to their rationalisation of educational reform and their perceptions of teaching and subject pedagogy within the context of their personal belief systems. In terms of external influences I have investigated teacher responses to staff development programmes and explored how these influence teachers in their ability to cope and develop change agendas. I specifically look at how professional learning communities can assist in the development of such reform and how this environment can benefit teachers in rationalising their responses to such change.

In terms of other external forces in the personal change process, I examined the role of the school leader in the process. I outlined the crucial role the leader played in the introduction and continuation of the process. I also examined the consequences of these actions in the medium to long term. I then looked at the role of the student and explored the literature on how important their actions were in the success of the change implementation process. I specifically concentrated on these two agents and left out others (such as the parents, wider community and the national perspective through government policy provision) because I wanted to focus on the day-to-day minutiae of the implementation process.

The presentation of the review will begin by examining educational change theory so as to establish the framework for investigating teachers' responses to change initiatives. It will explore teacher responses to change and explain them in the context of their beliefs, sense of self, emotions, development, the impact

of research and resistance to change. It will then turn to the role of the school leader in the change process and specifically his impact on teachers' views and action with regard to change. Finally in regard to students, it is important to investigate their role even though it is widely acknowledged that they have little or no voice in the change initiative. Their impact however is significant and needs to be taken into consideration when viewing how teachers react and respond to change within the milieu of the classroom.

Educational Change Theory

Although commentators such as John Dewey were investigating the role of schools in the early part of the twentieth century it was not until the 1960's that educational change became a popular investigative subject (Fullan, 2001). The main thrust of educational change research came from the United States, in a period Fullan calls "the adoption era" of reform (p.5). This in essence meant flooding the system with external ideas in an attempt to foster innovation on a national scale in schools. However it was clear by the early 1970's that little had been achieved and what had, was often only isolated examples of local best practice. This failure to implement change was reviewed by Fullan and Pomfret (1977) and they concluded that there had been massive failure in the attempt to put into practice the theories that had been developed in terms of educational change in the previous decade. In their review of educational change Fullan and Pomfret (1977) noted that there was a disconnection between teacher practices and the focus of implementation of successful change innovation and this they concluded was problematic because teacher development and school change went hand in hand. Hargreaves and Fullan (1992) summed this problem up when they stated that "...successful change involves learning how to do something new. As such, the process of implementation is essentially a learning process." (p.1).

Change as a concept is complex. It has to take into account many factors including knowledge, beliefs, attitudes, understanding and self-awareness as well as teaching practices (Richardson *et al.* 2001).The objective, however, of

educational change is fairly consistent in that it is concerned with enhancing student engagement and achievement within an education system (Newmann *et al.* 2000). How it is achieved is more problematic but what is clear is that the drive for educational change is global. Countries such as Australia are, for example, tackling issues around inconsistent national policy, disproportionately disadvantaged indigenous students in the context of education and wide disparities between low and high achieving students (Caldwell, 2010). Canada is championing its concept of charter schools (although there is resistance to these type of schools from teachers unions) where educational innovation and excellence is the cornerstone of its educational philosophy- backed up with resources and finances through the public expenditure programmes. Concentrated initially in Alberta, these schools “provide innovative or enhanced education programs that improve the acquisition of student skills, attitudes, and knowledge in some measurable way.” (Alberta Education, 2010). In Ireland the National Council for Curriculum and Assessment has produced discussion documents that outline strategies for change in schools with an emphasis on long term meaningful reform implementation with all partners in the school community taking ownership of the process (NCCA, 2008)

It is argued that educational change is necessary because it is inextricably linked with the way in which society is organised (Singer and Pezone, 2003) and society is in a constant flux. The relationship between education and society is however unequal because knowledge is not neutral – it either supports the status quo or a potential new direction for society (Freire, 1970). This means that democratic classrooms may be difficult to achieve (Greene, 1993a) but that the focus on change must develop through a “curriculum for human beings” Greene (1993b). Fullan (2001) feels that change is necessary because, “...high proportions of students are alienated, performing badly or dropping out. Their life in school is far less than it should be.” (p.123). Whatever the motivation for educational change and the wide variety of opinion on it, one thing is agreed and that is that implementation is problematic (Fullan, 2011).

Educational change literature identifies certain principles and pre-conditions for successful change to occur. However, Hargreaves *et al.* (1998) suggested that more research was needed so as to address and understand the complexity of the issues as experienced at the implementation stage. They outlined a number of key strategies to achieve change in school but with the proviso that a lack of clarity and agreement about how to effectively implement change would negate the strategies suggested. They saw the underlying rationale of these strategies as involving: (i) training teachers with skills for group work, (ii) processes of innovation, (iii) diffusion and adoption, (iv) organisational self-renewal, (v) knowledge transfer to schools and teachers, (vi) support for schools and teachers' implementation of initiatives, (vii) leading and managing local reform, (viii) training teachers as change agents, (ix) the creation of new (alternative) schools, (x) managing systematic reform on a large scale and (xi) restructuring schools (Hargreaves *et al.* 1998). So educational change is complex and depends on many factors and conditions. Research has attempted to identify these factors and conditions but still views the determination of effective change and how to achieve it as challenging (Fullan, 2011).

Fullan (1991, 2005 and 2011) focused on the three stages of change namely introduction, implementation and successful maintenance and used a substantive body of theoretical and research work to support his ideas. With co-editor Stiegelbauer (1991) he acknowledged in his chapter on change initiation that there was no consensus on what constituted successful introduction but gave some general characteristics of successful and unsuccessful practices. In his work on the complexity of the change process Fullan (1999) puts two main themes forward. Firstly, that schools, as organisations, need to be understood as 'living systems' (p.13) and secondly that in order for ideas and strategies to be developed tacit knowledge among teachers needs to be made explicit. Fullan points to a number of effective strategies and procedures that need to be conditional if reform is to be successfully implemented. For example he feels that theories of education and theories of change need each other, as a single theory cannot generally be applied to a change situation. So, accumulated knowledge is essential to understand what works in what condition, context and

situation. He also acknowledges that conflict and diversity can be useful (that in fact the anxiety that comes with change can be useful to develop skills that can deal with the challenges of change), that uncertainty has to be accepted as a characteristic of change and that the simplicity of a process has to be encouraged (he later termed this the 'skinny of change' (2011)). He also encouraged an avoidance of overload, fragmentation and incoherence and that in essence there was no single solution to the challenge of school change.

The idea that successful educational change is dependent on the active participation of teachers and management in the milieu of collective ownership is well developed in literature (Fullan, 2011, Hargreaves, 2009 and Hallinger, 2003). In the context of this study the literature argues that in certain situations and for different stages of the change process, certain limits need to be placed on the level of consultation and participation (Priestly, 2010, Towndrow *et al.* 2009, Guhn, 2008). However the need to develop change within a broad framework of ownership and collaboration is generally endorsed. Fullan (2001) looks at the role of the teacher and considers what works for them in the context of change. He also explores the significance of communication and collegiality among the teachers and sees these as strong indicators of implementation success. Timperley and Parr (2005) see the importance of properly designed change structures and argue that if the design is not right in the first place then successful implementation of a change plan is virtually impossible. They also consider problems associated with poor attitudes to change and the lack of skill or knowledge within the context of change that allows for successful implementation. Hargreaves (2002) articulates these problems when he states:

“The goal of the change may be unrealistic or unclear so teachers cannot achieve what is expected of them. The perpetrators of change may have low credibility; their reasons may be politically suspect; the intentions regarding real improvement for students may be in doubt” (p.189).

The ambiguous nature of this type of change programme created a disconnection between participants in the change process and its initiators. This

resulted in a lack of ownership of the initiative and it usually failed (Timperley and Parr, 2005). Parsons and Fidler (2005) argued that there was an assumption at the macro level that any change is possible whatever the initial conditions. They acknowledged that research had shown the importance of change being systematically managed but that a lack of questioning on whether particular changes are possible in specific circumstances had been achieved. They also felt that little consideration had been given to why change strategies fail. They suggested that punctuated equilibrium theory (where an organisation/society exists in stasis for long periods punctuated by radical shifts over short periods of time- Baumgartner and Jones (1993)) - is a suitable approach to the analysis and planning of change within an educational organisation. Parsons and Fidler also argued that in the past it may have been appropriate to present the state of educational organisations as static and arrested in time and in their research they challenged this notional paradigm with that of punctuated equilibrium theory. They supported their argument with the analysis of recent empirical findings. They considered the idea of 'disjointed incrementalism' (Braybrooke and Lindblom, 1963; Lindblom, 1959) where a series of small incremental changes were the norm with the result that little concern was given to the consequences of these changes on a wider scale. The other major approach took cognisance of Fullan's (1991) staged theory where the process was defined in terms of initiation, implementation and institutionalisation. This approach assumed that change was always possible and that a small series of coordinated changes could lead to transformational change at organisational level. Parsons and Fidler criticised this theory because they felt that it did not take into account the feasibility of the scale and extent of the proposed change. An examination of these issues has pointed out that much change was ineffective and never reached institutionalisation stage (Gold, 1999).

In summary educational change theory suggests that a number of fundamental issues need to be considered when engaging in the process of change. There is a general consensus that change is problematic and that there has traditionally been a disconnection between the external ideas that drive change and the

learning processes that needs to be in place to implement it (Fullan and Pomfret, 1977). The literature also agrees that essentially change is necessary to enhance student engagement in the learning process and that internationally, efforts are being made to develop strategies that can assist in this process. The link between educational change and the way society is organised was also considered in terms of the place neutrality occupies within the change process. The literature also identifies the principles and preconditions that are necessary for change to occur. A number of strategies were suggested from the literature that allowed for progression in terms of the initiation and implementation of a change programme. These elements highlighted the complexity of the change environment and the difficulty in engaging in change if the setting was incomplete. The fact that educational change was complex focused the literature in terms of developing strategies that would allow for people to positively engage with the change programme. Having considered the general conditions that exist in the change milieu, it is now important to narrow the focus and examine the theoretical framework that will inform this research project. Michael Fullan has written extensively on models of educational change and it his hypotheses in this regard that I would now like to explore.

Educational Change – Fullan’s Perspective

This section will briefly outline Fullan’s ideas on educational change theory. It will examine his main concepts and describe the patterns of change that he feels are most appropriate in securing a successful outcome. It will also describe within the literature on educational change some of the limitations to his ideas. It will close with an explanation of why this research project will use, in the main, many of Fullan’s theories.

Fullan (2001) sees change as a process that cannot survive and develop successfully unless the agents of change who are the implementers of the programme are committed to the process. He feels that in most cases people do not understand the nature or ramifications of most educational change and that; “They become involved in change voluntarily or involuntarily and in either

case experience ambivalence about its meaning, form, or consequence.”(p. 38). Fullan argues that change is often not conceived as being multidimensional and a lack of clarity of its dimensions often explains why some people accept an innovation they do not understand, why some aspects of change are implemented and some are not and why some strategies for change neglect certain essential components. As has been mentioned, Fullan argues that change has three phases, initiation, implementation and institutionalisation. In each of these phases there are critical periods which can have a positive or negative effect on the change process. In tandem with these moments is the need to embrace an objective reality and Fullan sees this as problematic in the process. He believes reality is defined by individuals and groups and that their interactions create social phenomena that exists outside of the individual. In the context of change he also sees reality as a subjective experience of the producers of change which can create a disconnection between participants in the change process. However his solution is to apply the work of Berger and Luckmann (1967) to the problem in the context of their double question: “What is the existing conception of reality on a given issue?” followed quickly by “Says who?” (p.116), (known as paradigmatic change - Hasan and Hartog, 2010).

In terms of the process of change, Fullan (2001 and 2011) looks at the issues of initiation, implementation and institutionalisation. In his chapter on the causes and process of initiation (Fullan, 2001), he argues that; “The number and dynamics of factors that interact and affect the process of educational change are too overwhelming to compute in anything resembling a fully determined way.” (p.49). Research, he points out, has over the last thirty years established sets of suggestions or implications in the change process but not any hard and fast rules due to the lack of consistent specificity in any given change scenario. Fullan believes that although there are no guidelines as such, there are practical application strategies that can be used in general circumstances.

The initiation stage, Fullan believes, can take many forms according to its breadth and depth. He argues that there are countless variables that have an influence on this process but determines that eight general factors are

associated with this stage. These include; (i) existence and quality of innovations, (ii) access to innovation, (iii) advocacy from central administration, (iv) teacher advocacy, (v) external change agents, (vi) community pressure/support/apathy, (vii) new policy and funding and (viii) problem-solving and bureaucratic orientation. Fullan concludes that the introduction period is influenced by an amalgam of different factors and informed by a wide variety of different sources. He does however feel that local capacity should be developed at school level, that all leaders (management and teachers) should be assertive and proactive and that there needs to be a shared ownership of the principles of change in an environment that encourages diversity if necessary. In conclusion, Fullan believes that the initiation period represents difficult dilemmas and that this period can generate; "...meaning or confusion, commitment or alienation or simply ignorance on the part of participants and others affected by the change." (Fullan 2001, p. 67). He feels that poor beginnings can be turned into positive experiences depending on what is done during implementation but that promising start-ups can equally be squandered.

Fullan (2001) states that, "Educational change is technically simple and socially complex." (p.69). This analogy highlights the complexity associated with implementing a change process. Involved in this process are the beliefs, attitudes and experiences of individuals and that means diverse interpretations of the process. However if a "system of variables" (p.71) are formed whereby the sets of factors influencing implementation are not viewed in isolation then success is more likely. These factors are central to the implementation process and fall into three broad categories; (i) the characteristics of the innovation or change project, (ii) local roles and (iii) external factors. Fullan cites a number of studies (ECS, 1999, Education Trust, 1999 and Datnow and Stringfield, 2000) as examples of a holistic approach to the implementation process. To Fullan the importance of collaborative working practices (such as professional learning communities) amongst the implementation practitioners was essential to any success. Leithwood and Sharratt (2000) found that successful implementation relied on a number of internal factors (school leadership, vision, culture, structure, strategy and policy resources) interacting with a number of external

ones (district, community and government). Fullan believes that implementation is dependent on both internal and external factors working together in a consistent and focused way in which all participants have a say. Hargreaves (2009) agrees that reform should be couched in a wider scope of action where trust, decision-making and responsibility are devolved downwards (commonly known as the principle of subsidiarity). So in the context of implementation it is recognised that in order for it to be applicable, change has to be needed, have clarity, be accessible to the change agent (in terms of its complexity and the skills required to implement it) and have quality in its substance (adequate resourcing, time allowed and development of the programme for instance).

Following on from the implementation process, Fullan (2001) concludes with an examination of the factors affecting continuation. Continuation, according to Fullan "...represents another adoption decision." (p.88). Berman and McLaughlin (1977) found that any programme implemented ineffectively was eventually discontinued, but also that many effective programmes were likewise discontinued – especially when funding ceased. Huberman and Miles (1984) felt that continuance depended on the speed in which the innovations were embedded in the root structures of the organisation and Datnow and Stringfield (2000) in their longitudinal study on change found that less than 10% of successful change initiatives were continued in schools after three years.

The idea of continuation has been challenged recently by the concept of sustainability. This identifies the need to continuously grow and develop as opposed to maintaining the changes that have taken place. Hargreaves and Goodson (2006) believe that educational change, for it to be sustainable, has to be concerned with matters both historical and enduring and that it is not enough to maintain the new status quo at its terminal position. Sustainability encapsulates the different elements that are needed at the initiation stage of any change programme. These elements include focusing on and exercising leadership to secure deep learning, developing clearer processes and administrative plans, appropriate engagement with the strengths of teachers (and not viewing them as potential agents of resistance), finding ways of making

teaching and learning more vivid and real for students and activating and developing professional learning communities as hubs of disseminated learning.

To conclude, Fullan sees three main issues with the change dynamic. Firstly is the tendency to oversimplify. Once you believe you have a good idea and there is an urgency to correct a problematic situation, the tendency is to legislate for the solution without giving the strategy time to develop and mature. Secondly organising the implementation process in a sustainable and appropriate way is crucial especially when the balance for successful implementation according to Fullan (2011) is 25% having the right idea and 75% establishing effective processes that themselves are no guarantee since each situation is unique. Thirdly implementation and continuance are not just technical problems, there needs to be passion and commitment to the process. Oakes et al. (1999) (cited in Fullan, 2001) argues:

“...unless (teachers) were bound by a moral commitment to growth, empathy, and shared responsibility, (they) were as likely to replicate the prevailing school culture as change it.” (p.825)

Limitations of Fullan's Theoretical Model

Fullan's ideas on educational change are widely acknowledged as having significant relevance in the pursuit of educational change goals and are well supported by his peers. His relationship with educational change theory goes back to the 1970's when he was in the vanguard of researchers who confronted the notion that successful educational change is achieved through rational planning using systematic and linear patterns of implementation (Griffiths and O'Neill, 2001). However there has been criticism of his approach to educational change and some experts in the field have expressed concerns about a number of his core issues. Miles (1998) and Zhou (2002) have, for example, criticised Fullan's lack of clarity and agreement in the context of the change implementation process because his theories take precedent over practices and Waugh (2000) has argued that Fullan's teachers do not need to have genuine

ownership of the change process as perception of ownership is sufficient to create appropriate conditions in which change can take place. Hattam and McInerney (2000) questioned Fullan's lack of engagement with pre-service teachers who they felt, had a significant role to play in educational change. Kaye (1994) examined the necessity for a whole school approach to change and questioned whether, as a matter of principle, all staff should be included as potential change agents and if they were would this necessarily lead to higher educational outcomes for students. From a collaborative community of practice perspective Lipman (1998) argued that the space that was created by such practices could entrench differences and negative understandings and perpetuate deficit modelling and inequality. The need to develop strategies to overcome such negativity had to be built into this hybrid space if it was to promote equality and critical enquiry and Lipman felt that Fullan did not do this sufficiently in his work on the role of collaboration within the change process. Dinham and Scott (1998) also criticised the fact that Fullan, although acknowledging that teachers' social status was decreasing and their workload increasing, did not factor these issues into his change strategies which had the potential to undermine any change initiative and weaken teacher commitment to change in general. Gold (1999) in his work on punctuated equilibrium theory tackled issues of form and pace in the context of change. His arguments ran counter to those of Fullan because he believed that educational change needed to fail in the short term. This failure was an integral part of the longer term process which challenged deep-rooted structures in a way that puts pressure on organisations to conduct small incremental change with occasional bursts of more widespread and systematic change. Fullan saw change as being derived from small consistent transformations that were controlled from the ground up and which had a process to go through in order to create successful and sustainable reform.

Educational change in many respects is at a crossroads. There have been multiple strategies devised to initiate and implement change but its sustainability is suspect and although progress has been made in terms of developing models of change that positively impact on school organisations, the reform process is

“...neither deep or sustainable” (Fullan 2005, p.1). Hargreaves and Goodson (2006) echo this sentiment when they lament that “...producing deep improvement that lasts and spreads remains an elusive goal of most educational change efforts.” (p.5). This then is the crux of the issue and reflects Fullan’s limitations and indeed that of all educational change theorists. We cannot continue to pursue the same strategies and hope to effect different outcomes. We have to take into account the increasing demands within the professional life of the school teacher and find avenues in which effective and sustainable change can be achieved and at the same time engage with cultural change in order to create an environment conducive to change. Hinde (2004) recites an old saying that fish would be the last creatures to discover water (Kluckhohn, 1949 as cited in Finnan, 2000). This reflects the problems associated with stepping back and taking an objective look at school cultures and determining where change fits in to this culture or if indeed the culture needs to be realigned with the change initiative. Sarason (1996) argues that it is difficult to understand and determine school culture because we, “...put blinders on what we look at, choose to change, and evaluate... Because our values and assumptions are usually and implicit and second nature, we proceed as if the way things are is the way things should or could be.” (p.136-137). However difficult it is to understand objectively a school culture, one truth seems to hold true and that is that if school change is to take place, then it has to be aligned with the school culture (Sarason 1996, Hinde 2004 and Fullan 2005). So compatibility needs to exist between the school culture and the purpose and process of change. Once this is established all the other elements as outlined by the research on educational change can come in to play. With this in mind we can clearly see that Fullan and others need to focus more cogently on the school culture (the pre-initial stage if you like) and address the issues that arise from this before setting out on the strategies that can effectively and consistently deliver deep reform in a sustainable and organic way.

Fullan's Perspective and its Influence on this Research Study

This research project is informed by a wide variety of sources. However in gaining an insight and understanding into educational change, I have focused to the greater degree on Fullan's ideas. There are a number of reasons for this. Fullan puts the teacher at the centre of the change focus. His reasoning is that as instruments of change, the teacher is an essential component and that without him the 'irony of representation" (Hoyle and Wallace, 2007 p.18) manifests itself in a way that will cause terminal damage to the process. The centrality of the teacher as explored by Fullan resonates with the research question which is primarily concerned with teacher responses to educational change. Fullan outlines strategies that are appropriate in the context of the placing of the teacher in this central position and makes suggestions in terms of how this can be achieved and to some degree sustained. Fullan also acknowledges the importance of local capacity in terms of the development of a change programme. This is in keeping with the philosophy of this research project which uses the development of a new teaching and learning strategy to examine teacher responses to educational change. Because this is a local initiative, teachers are necessarily involved in its development and Fullan explores how this can be managed within a local context – especially in terms of the role of the teacher and the other interested stakeholders in the school community. He also explores the importance of teacher advocacy and the need for clarity in the process.

Fullan acknowledges that change is complex and multi-faceted and as such there is no single template in which to develop change strategy. However, despite some commentators suggesting that Fullan is too theoretical, he makes some important observations in the context of change application. He lays out a format of initiation, implementation and continuation and examines how these processes can be applied in the context of a real-life situation in a culturally and socially complex environment. He questions the influences of teacher beliefs, attitudes and experiences on the change process and creates guidelines which assist in managing these issues. He suggests that if a system of variables is

formed in which factors influencing the process are not viewed in isolation, success is more likely.

In his works on educational change Fullan looks at the relationships between local capacity and its ability to reform organisations. He explores the pressures and supports and recognises the effect that small but well-built change processes have on creating and sustaining (to some degree) change. His acknowledgement of the multitude and complexity of the elements that make up successful change will allow this research project to follow a framework that, although not a template to successful change, will have resonance in the context of what the research project is trying to achieve. That is not to say that other elements of educational change theory will not come into play. Fullan recognises that change is not linear and that cultural, social and professional issues have influence as the change project develops and that is why his ideas and suppositions are so important in the context of this project. The constructivist nature of the paradigm in which this project is being pursued makes it inevitable that looseness will be present and as such it requires an ideology that is flexible and connected to the unpredictability of the human psyche in order for the examination of teachers' responses to take place.

Fullan leaves enough flexibility in his hypotheses for the development of new models of practice within his change theories. He acknowledges the uncertainty of change but creates a framework that is not only theoretically useful but practically accessible. This reflects what this project is trying to achieve in the context of the structure of its new teaching and learning strategy and fits neatly as a way of testing teacher responses to educational change.

This section examined some general conditions of educational change and detailed some of the issues that affect change. It then explored Fullan's approach to the theory of educational change and noted his view that no consensus was present in research in terms of what constituted a correct approach to the change process. He detailed a number of aspects that would need to be present for change to have a chance of success and concluded that theories of education and theories of change would need to be applied jointly if

any educational reform was going to be successful. He also outlined a number of factors that were crucial if change was to be successful including that schools needed to be seen as living systems and that the tacit knowledge that teachers possessed needed to become explicit.

This section examined the importance the literature attached to the partnership model of educational change and how collaboration amongst all stakeholders in the school community were essential but especially the collaboration of teachers within a professional learning community. This meant that good communication and sound design features had to be present in the introduction stage and that if ambiguity existed then the possibility of failure was high. Systematic management of the change process was also essential and that if change strategies failed there should be an opportunity, within the change framework, to analyse these failures and learn from them. This section also acknowledged that Fullan had certain limitations and these were explored through the literature. Finally this section gave an explanation as to why it was felt that Fullan's theories on educational change were the most appropriate model to use in the context of this research study.

I now turn to the role of the teacher in the change process. The literature clearly establishes that the teacher is pivotal in the success or failure of a change programme. There are however a wide variety of factors that come into play in terms of the teachers' interactions with change and it is these that must now be considered in the context of the research milieu.

The Teacher

Any kind of educational change is teacher dependent. The role of the principal is important and the environment in which the change process is taking place is significant but essentially it comes down to how the teacher interprets the change and what level of belief he has in the efficacy of its outcomes. However the issues that arise in terms of the teachers' view on reform are affected tremendously by the conditions in which the teacher has to conduct his professional life. Research shows that the everyday professional life of the

teacher is becoming increasingly more difficult and that the teacher faces more diverse challenges as the environment in which he works constantly adjusts to the ever growing needs of its student cohort (Sarason, 1996, Fullan, 2001 and 2011, Goodland, 1984 and Lortie, 1975 and 2002).

Current literature recognises that the role of the teacher in the successful implementation of reform has superseded the technical rationalistic approach (Hargreaves *et al.* 1998) and that the sense of professional and personal identity is a key variable in their motivation and commitment to change (Day 2002, van Veen and Slegers, 2005). According to Drake *et al.* (2001), the way and extent to which teachers perceive, adapt and realise change in the classroom, is influenced by the extent to which they challenge and reconstruct their existing identities. Furthermore this sense of identity is prompted by classroom experiences, collegial relationships, organisational structures and external situational pressures.

Lortie (2002) found that a number of issues arose that impacted on teachers in their everyday working lives as they faced the challenge of change within the school organisation. In this study he was concerned with the cellular organisation of the school which dictated that the teacher spent much of his time working in professional isolation and where the technical culture was not developed in tandem with other teachers (because the norms of observing, sharing and discussion were not present in the working life of the teacher). This suggested that the teacher had no models of best practice which had the effect of creating ad hoc teaching strategies and methodologies that went untested in the context of teacher assessments. The teacher was never tested and the student when tested was judged not on the skills of the teacher to deliver the curriculum but on the skill of the student to absorb the facts. Lortie suggested that when teachers did receive help the most effective sources tended to be fellow teachers. However this assistance focused less on objective principles of instruction and more on superficial interventions which meant that underlying issues relating to lack of proper pedagogical standards were left unchallenged. Lortie also questioned teachers' beliefs in the context of their experiences as

students. He felt these beliefs served as an overarching framework for understanding and engaging with the world. The beliefs that emerged from these experiences had the potential to inform current responses to change but only if they were understood in the context of their origins and development. By understanding the motivation behind these beliefs, change responses could be properly identified.

The literature clearly indicates that the role of the teacher is becoming increasingly fragmented and complex as the needs of their students become more demanding and diverse. However it also indicates that the role of the teacher is crucial to the success of any change programme. The sense of professional and personal identity is a key variable in the motivation and commitment to change and because of this the experiences of teachers within the organisation are critical. The literature also indicates that challenges faced by teachers often give them little or no opportunity to grow as change agents. The diversity of the teaching environment impacts on the way teachers perceive change and influences how they respond to the challenges of this change. Beliefs are thus shaped by a complex process that includes experience, attitude and environment - these significantly influence how teachers perceive and rationalise change. In order to understand how these elements do this I must now examine the literature on teacher belief systems and explore their impact.

Teachers Beliefs

Teacher beliefs can impact significantly on the way they respond to a change programme. Levin and Wadmany (2005) found that the influence of teacher beliefs on teacher instructional practices (Clark and Peterson, 1986 and Fang, 1996), demonstrated that personal belief systems had a powerful effect on what teachers learned from educational reform schemes, professional development programmes and curricular decision-making and teaching practices. These studies demonstrated that teachers tended to adopt new classroom practices based on whether the assumptions underlying new practices were consistent with personal epistemological beliefs (Yocum, 1996). They concluded that

teachers' knowledge and beliefs about teaching and learning formed an 'intuitive screen' (p.284) through which they interpreted professional development and teaching reforms (Buchanan *et al.* 1998). They also felt that these beliefs could either further or impede change (Prawat, 1990). If teacher beliefs did not match the goals and assumptions of educational innovation, resistance was likely (Burkhardt *et al.* 1990). However, if teachers' beliefs were compatible with educational reform it was highly likely that change practices would be accepted and adopted.

Nespor (1987) identified four characteristics of belief – (i) existential presumption - or fundamental personal truths, (ii) alternativity - an attempt to create an alternative situation that may differ from reality, often driven by the desire to correct a negative experience, (iii) affective and evaluative loading - where beliefs are stronger than knowledge and (iv) episodic structures - which relate to the idea that knowledge is semantically stored and belief lies in the episodic memory which is engaged by experiences and cultural sources of knowledge transmission. Due to the fact that the nature of teaching and teachers work is so ill-defined, Pajares (1992) suggests that they are vulnerable to becoming what Nespor (1987) describes as the "entangled domain". Thus entities which supposedly occupy the same environment are often disconnected, unclear and incomplete. As Pajares (1992) concludes:

"When a teacher encounters an entangled domain, cognitive and information-processing strategies do not work, appropriate schemata are disconnected and unavailable and the teacher is uncertain of what information is needed or what behaviour is appropriate"(p.311)

This mode of functioning, according to Pajares, is highly unsuitable in a profession characterised by high numbers of interpersonal contacts on a daily basis especially when teachers have often to function on impulse and intuition and not reflection (Eraut, 1985 and Lortie, 1975/2002).

Teachers Beliefs and Student Outcomes

Research conducted by Rosenthal and Jacobsen (1968) documented teacher beliefs in student abilities and clearly showed a kind of self-fulfilling prophecy where low expectations were satisfied and similarly high expectations of student achievement were also realised. This was extended to siblings in a research done by Seaver (1973) which showed that teachers believed that family context and genetic makeup had a profound effect on achievement. Rosenthal (1973) derived four major types of teacher behaviour which he believed reflected expectancy effects. These were; (i) climate - is the teacher warm and encouraging to the pupil? (ii) feedback - does the teacher offer evaluative comments on the pupil's on-going performance? (iii) input - how much does the teacher try to teach the child? (iv) output - how many opportunities does the teacher give the child to respond?

Later studies have confirmed that the teacher's expectations of student's ability have had a significant impact on student motivation and outcomes. For instance Vroom (1964 and 1988) saw expectancy theory in the context of individual effort that achieved specific goals and that this cognitive theory of motivation created a scenario where motivation acted as a function of expectancy, instrumentality (where achievement of goals would most likely result in specific rewards or outcomes) and valence (the value placed on outcomes). Kelley *et al.* (2002) identified teacher expectations as the key motivational factor that distinguished schools with improved student performance from schools in which students failed to improve. Kelley and Finnigan (2003) built on this research when they examined the impact of the organisation on teachers' levels of expectations in the context of student achievement. These levels of expectation were belief driven (they were not referring to teacher efficacy which may also affect outcome) in that they were interested in teachers' beliefs about relationships between their efforts and resulting student achievement outcomes in particular programmatic contexts. This study found that a number of individual and organisational factors came into play when understanding teacher expectations; these included school demographics, teacher quality, principal leadership and

the professional community. The size and location of the schools and the socio-economic circumstances of the students also had relevance.

So for the teacher their beliefs are their reality and guide their decision making, behaviours and interactions with their students and in turn their relationship with the school organisation (Kaniuka, 2012, Muijs and Harris, 2006, Lauermann and Karabenick 2013). Crucially this subjective reality becomes immersed as an objective reality for students in the classroom situation because students experience it as real and true (Rosenthal and Jacobsen, 1968). The teacher determines the approach to the teaching and learning milieu and without the input from the students, the notion of a collective understanding has the potential to widen to a point where it becomes unrecognisable to the student which can cause disengagement. The need to create understanding of the belief issues of all parties is important because change cannot be implemented successfully in such a diverse and fragmented domain (Pajares, 1992).

Teachers Beliefs and a Sense of Self

Research has shown that the more belief is tied to the teacher's sense of self the more they will resist change (Gregoire, 2003 and Davis, 2006) and even awareness of beliefs that are clearly negative in terms of the students are hard to change. Rohrkemper and Corno, (1988) in discussing cognitive dissonance suggested a process whereby teachers faced their failure and learned from it. The failure of students in the learning environment can also be an indicator of beliefs that are at odds with the objective reality of the learning environment. By recognising students' struggles as "functional failures" (Rohrkemper and Corno, 1988) teachers can modify what they are doing to help their students learn and in doing so, help themselves to work more effectively with all students and their subject matter. The difficulty here according to Gregoire (2003), is helping teachers learn to interpret failure as a challenge and an opportunity for growth rather than as a threat.

One of the most important indicators of failure to implement change at the outset of the process is the degree to which teachers are working and operating in isolation. The school environment has to foster collaboration and collegiality if successful implementation is to take place (Fullan, 2001). The literature of change indicates the need for teacher interaction as an essential starting point of the reform process (Fullan, 2011, Hargreaves and Shirley 2009, and Duignan, 2009) and this is not just as a support for the experiences in which they are facing but also as technical assistance in the delivery of the new teaching and learning constructs. This interaction process is clearly defined almost universally in the literature as essential to the process. As Fullan remarks (2013);

“Significant educational change consists of changes in beliefs, teaching styles, and materials, which can come about *only* (sic) through a process of personal development in a social context”. (p.139)

This shared understanding of what is required needs to have a forum and professional learning communities (PLC) seem to be the way in which this understanding can not only be shared, but developed and assimilated into the cultural setting of the school organisation, Talbert (2006) suggests that the PLC becomes part of the core work of teachers. As teachers organise themselves into working groups with the focus on collaborative learning, they not only embrace the richness within the community in which they work, but they concentrate on learning outcomes as opposed to teaching outcomes, making themselves far more accountable in terms of results (Dufour, 1998). However it is important to remember that PLCs are most effective when they challenge and change the professional culture of the system. Talbert found that when system conditions supported the work of PLCs - conditions such as comprehensive education plans, integrated learning supports, local knowledge resources, robust data and accountability systems and extended time for teacher collaboration - these were still not sufficient to engender a change in the professional culture and working lives of teachers and that a comprehensive programme of teacher reform had to be developed simultaneously with the PLC

for this forum to be most effective. Fullan (2001) calls this the primacy of personal contact and essentially it involves not just the gradual development of skills based workshops within the culture of the school but also the need to have one-to-one and group opportunities to give and receive help and discuss the meaning of change. In this way the teacher can widen his pedagogical and information base and position himself into a situation where he can accept, modify or reject change. These elements need to be in place for purposeful interaction to take place and are essential for continuous improvement.

In summary the research has found that personal beliefs have a powerful effect on teacher practices. Teachers in fact interpret change through their beliefs and experiences. The lack of belief in a change system would, according to the literature, render any change programme redundant because teachers would refuse to engage with it in any meaningful depth. Belief is inextricably linked with fundamental personal truths and experiences but these are subject to the influences of an ill-defined working environment which literature refers to as the 'entangled domain'. Teachers use their belief systems to make sense of their environment and the lack of definition in the structure of this environment means that teachers struggle to cope with the problems and inconsistencies that make up their professional lives. This in turn makes it difficult for them to engage in a change process that adds more uncertainty to their daily environment.

In terms of teacher beliefs and student outcomes, the literature points to the unequal relationship that normally exists between students and teachers and sees a self-fulfilling prophecy in the context of student achievement as a problematic consequence of this. I am concerned with student outcomes in this respect because it reflects the strength of teacher beliefs in their own actions and influences which ultimately shape their approach to pedagogical methodology and practice. Research also points to the idea that student expectations are driven by teacher beliefs and that if teachers cannot engage in change practices due to these belief systems, then they are in danger of losing students to their own subjective realities (inconsistent with student realities)

which can in turn cause student disengagement – a situation which runs counter to the notion of change as a vehicle for increasing student attainment. Teachers' belief systems are influenced by a number of factors and the literature highlights the importance of collaboration in the context of shared understanding. This shared understanding allows the teacher to develop change skills and assists in the planning of new pedagogical strategies. This enhanced interpretive discussion forum according to the literature lays down the basis for purposeful interaction with students in a milieu of continuous improvement.

Emotions play a major part in the shaping of teacher belief systems. As such I will now turn to an examination of the literature in this respect and explore a number of elements that significantly impact on teachers in regard to their responses to educational change.

Teachers Emotions

The emotional state of the teacher affects their response to the process of change. Beatty (2000) and Evans (1996) look at the emotional state of teachers in the context of the implementation of change and explore how they react to change policy and the requirements of implementation as it is imposed externally. It was found that teachers responded to change through the emotional context in a number of ways and more often than not this response tended to be negative which in turn impacted on the implementation process. Emotions can be determined in a number of ways. This review will take a social-psychological interpretation of what constitutes emotion as a framework because I am primarily concerned with emotions as they arise from the relationship between the individual and the environment. From a sociological viewpoint this approach takes cognisance of how emotions are triggered, interpreted and expressed by virtue of human membership in a particular group (Kemper, 2000). Psychologically it attempts to interpret emotions in terms of the structure of the individual and stored information together with the interaction of

the individual and his environment (Frijda, 2000). Combined, these views have a strong emphasis on the individual and the environment and how these relations give rise to different emotions (Van Veen and Slegers, 2006). According to Keltner and Ekman (2000) there is a widespread agreement of the definition of emotion as:

“...brief, rapid responses involving physiological, experiential and behavioural activity that help humans respond to survival-related problems and opportunities. Emotions are briefer and have more specific causes than moods” (cited in Van Veen and Slegers, 2006, p.163,).

Van Veen and Slegers (2006) argue that personality or self include what is important to the individual – that is a person’s goals, beliefs and knowledge. Teachers carry these beliefs into their own definition of the “professional self” (Kelchtermans, 1993 p.997) and invest heavily in their own selves within the working environment. This creates a personal relationship with their profession which is ultimately extended to the student with whom it creates an intense personal interaction (Nias, 1996).

Smit, in her short paper “The emotional state of teachers during educational policy change” (2003) considered the issues that arise when policy change is implemented on a top down basis and the role of the teacher is simply to deliver the new approach. It has been found that the teacher responds by reacting negatively to the change which results in the non-implementation of the reform programme (Fineman, 1993). Smit also considers the concepts of emotional understanding, (Denzin, 1984 and Hargreaves, 2000), subjective meaning construction, (Fullan, 1991) and emotions and change (Hargreaves, 1994, 2000, 2001) as a means of interpreting empirical data. She explores how educational change is affected by teachers’ emotional responses to structures, practices, traditions and routines and how emotional masking (Hoschschild, 1983) result from what they really feel and what they think they are expected to feel. Smit argues that how policy is ultimately implemented for educational

change depends on how teachers make the necessary changes both in beliefs and practices.

Fullan (1991) saw the level of commitment demanded of teachers in the introduction phase as problematic if they were not involved in the change process at inception. As a result; "...people do not have a clear, coherent sense of meaning about what educational change is for, what it is, and how to proceed.....the problem of meaning is central to making sense of educational change" (p.4). Fullan makes the point that in order for change to be successful it is critical that teachers are consulted and included in the developmental process, that if they are not, then the purpose of the change becomes blurred and negativity sets in, which in turn causes resistance to the process of change and makes it unsuccessful in the long run.

It has been argued that emotions infuse most practices in an organisation and that for some this is explained in terms of emotions driving the person in the context of his acceptance of change practices (see for example Fineman, 1993 and Denzin, 1984). However it seems that in the change process emotion is hardly ever factored into the reform equation. As Hargreaves (1998) points out; ".....emotions are virtually absent from the literature and advocacy of educational change.....it is as if teachers think and act; but never really feel" (p.559). It is argued that if emotions are not taken into account during the initiation stage of the policy change then this change could feasibly be perceived as illogical, irrational and improperly conceived with the result that it is resisted, either implicitly or explicitly (Hargreaves, 1998). Conflict may result from this, especially from those teachers who are most affected by the change process and this may be further compounded by, as Evans (1996) believes, the dual response to change, the resistance and the embrace. He interprets this as a double life creating a divergence of feelings that leads to individual interpretation that when left uncoordinated produces a myriad of views that spread confusion, inconsistency and ultimately resistance.

Veen and Slegers (2006) examined how teachers perceived their role within the milieu of educational reform and determined that at least two issues arose which impacted on their emotions. Firstly there was a challenge to the professional performance of the teacher due to the fact that there were changing definitions of what this actually constituted. Secondly they were concerned with the amount of time and energy that the change programme required and the resulting impact on the emotional life of the teacher. Veen and Slegers (2006) argue that in respect of the professional practices of teachers, educational improvements are often implemented with insufficient evidence as to their positive effects and their goals are often wide and vague and with inadequate focus on design and application (Hargreaves *et al.* 1998, Fink and Stoll 1998, Eisner, 2000). This situation causes teachers to question their ability to interact with the change programme and as a consequence teachers feel a lack of control over the actual process. Eisner (2000) comments after reviewing school improvement programmes in the USA over the last fifty years that the teacher needs; "...to feel part of, if not in control of, the improvement process. The teacher "...needs to have a stake in how schools change." (p.347). In respect to time and energy needed to implement new change programmes in schools, Nias (1996) emphasises the importance of attending to teachers emotions which she sees as basically inseparable from their cognitions. She also argues that their emotions are a valuable insight into understanding what they have at stake within this milieu of change.

Spillane *et al.* (2002) argue that the link between teacher emotions and change have been "...overlooked and understudied" (p.411). They cite a number of scholars including, Nias (1996), Hargreaves (2000, 2001, 2005) and Lee and Yin (2010) as examples of studies that have been conducted to challenge this gap in the literature. Saunders (2012) argues that a lack of a coherent definition of emotion or a unified approach to its measurement is a result of the myriad of theoretical frameworks in which it can be studied. She suggests a pragmatic approach which incorporates a combination of methods designed to uncover and better understand the role of emotions as part of the diverse nature of educational change processes (Scott and Sutton, 2009 and Sutton and

Wheatley, 2003). Studies that have been conducted tend to look at teacher rejection or acceptance of change efforts (Saunders, 2012). These studies have explored how teachers appraise, interpret, make sense of and adapt to mandated reforms based on the degree to which aspects of the change agenda are consistent (or not) with teachers personal ideologies (Schmidt and Datnow, 2005, Spillane *et al.* 2002, Van Veen and Seegers, 2006). The disparity between the teachers beliefs, values and practices and the reform programme will determine whether they emotive positively or negatively to the change. Saunders (2012) believes that by:

“Simply accepting that teachers are likely to be positively or negatively emotively orientated to reform oversimplifies the intricate and dynamic process of change and the inherently complex nature of the educational systems teachers works within.” (p.4)

The literature in respect of teachers’ emotions argues that a link between emotions and teacher identity is crucial for a viable interpretation of how teachers rationalise change in the context of these emotions (Saunders, 2012). Nias (1989), and Van Veen and Slegers (2006) argue that teacher professional identity comprises elements such as self-image, job motivation, core responsibilities and perceptions about teaching and subject pedagogy. Cross and Hong (2009) believe that teachers professional identity is fundamentally grounded in personal belief systems and can be understood in the context of a framework which dictates how beliefs motivate teachers to organise tasks and solve problems. Cross and Hong organise the framing of these decision making functions into three categories; (i) beliefs teachers hold about epistemological issues, (ii) interpersonal beliefs which include notions of self-efficacy, and (iii) domain specific beliefs that relate to how an academic discipline should be taught (cited in Saunders, 2012).

Teachers are pragmatists (Tuohy, 1999) and as such want to apply practical principles to theoretical models; therefore the implementation of change has to be seen to be workable, effective and realistic in its application. However in

order to understand how teachers' react to change and internalise its processes, it is important to identify the existential attributions of teachers. Van den Berg (2002) looks at existential phenomenology and symbolic interactionism and examines these issues within the school organisations - which he interprets as an emotional arena - and contextualises them in terms of the professional identities of teachers. His research reflects a disconnect between the expectations of an imposed policy of change and the reality of this change in terms of the conceptions and opinions of the teachers who are responsible for imposing this change at local level. So what the policy maker feels is good teaching practices may not be what a teacher on the ground feels is appropriate. The personal identity of the teacher is crucial in this context and Van den Berg feels this issue is largely underexposed but has a profound effect on the domain of potential conflict.

In conclusion, Van Veen and Lasky (2005) found that; "...the analysis of teachers' emotions while implementing reforms can provide a deeper understanding of the ways teachers experience their work and educational change and can thus inform such areas as change theory and professional development." (p.895). They believe that emotions play a critical part in the development of any change programme and that the lack of understanding in this respect can put a sustainable reform agenda at risk (Darby, 2008). Hargreaves (2005) believes that if the change initiators, researchers and leaders ignore or underplay the emotional dimension in respect of the change process then its sustainability is at risk because; "Emotions are at the heart of teaching." (p.278). He argues that emotions are fundamentally about movement, they create a dynamism that can impact positively or negatively on an organisation and that they can and will drive change - or halt it.

The literature clearly signals that teachers' emotions are crucial to understanding their responses to change. I used as a framework for interpreting these emotions a social psychology perspective which took into account the individual's relationship with his environment. I found that personal goals, beliefs and knowledge impacted on the teachers professional self and in fact

contributed to the perception that teachers have in regard to the personal relationship they have with their profession. The literature is clear however that change, when imposed on teachers, impacts negatively on their emotions. This can create an emotional masking which is problematic because it obscures the commitment to change which creates uncertainty in the process. Understanding both the fundamental meaning of the change programme and how to proceed were thus essential for teachers' feelings of inclusivity, otherwise the focus became blurred and negativity set in. Research has also shown that emotions infuse most practices in an organisation but that it is rarely factored into the reform equation. This has created a misinterpretation of the intentions of the change programme which leads to individual interpretation which can collectively cause confusion, inconsistency and resistance.

The literature points to the problems associated with the teachers' own view of their role within an educational reform programme. Teachers feel that a lack of focus creates a vagueness of understanding which causes them to question their ability to interact with a change initiative, so they need to be clear on what is required from them in relation to change and feel as if they are part of the dynamic which has instigated the process. According to the research, unless a unified approach to the measurement of emotional output is developed, the myriad of change frameworks will continue with negative effects.

It is clear from the literature that there needs to be an explicit understanding of the role of emotions in the change process. These emotions are a catalyst for determining teachers' identity and therefore their responses to educational change. Furthermore as the teacher's identity is grounded in his personal belief systems, his willingness to engage in and develop change practices is influenced exponentially by these systems. Research shows that emotions affect movement and dynamism and that there is a direct correlation with these influences and the success of the changing organisation. Another key element of teacher responses to change is their experiences of professional development.

Professional Development

Within the school environment, professional development has an important role to play in the change process. Fullan and Hargreaves (1992) looked at the importance of traditional staff professional development as a catalyst for change and found that although it was useful in the context of reinforcing and developing already learned skills, it generally lacked an appropriate change focus and did not foster an acceptable environment in which change action could take place. As Fullan (2001) concluded in a study on in-service (Fullan, 1979), one - shot workshops were ineffective, topics were selected by people other than those receiving the in-service, and follow-up support for implementation was rare. Elmore and Burney (1999) described successful staff professional development as; (i) focusing on concrete classroom applications and general ideas, (ii) exposing teachers to actual practice rather than descriptions, (iii) providing opportunities for group support and collaboration and (iv) involving deliberate evaluation and feedback by skilled practitioners. What this meant for the teacher was the development of high standards of pedagogical practice which invited the possibility of reform. The idea that continuous professional development should focus on subject specific skills therefore needed to be reinterpreted with the emphasis being on developing reflective practices (Schon, 1983) and lifelong learning through professional knowledge. By engaging in these types of critical practices, teachers not only develop their own skills at the pedagogical level, (Ferraro, 2000) but also have an opportunity to develop change practices within the school organisation in an environment that encourages dialogue and interdependence.

Guskey (1986) found that contrary to popular belief, teachers were not motivated by financial gain in the context of change but by the challenge of becoming better teachers and the opportunity to grow within the role. The definition of becoming a better teacher, according to Guskey, was to create a position within the teaching and learning milieu so that students could enhance their learning outcomes. He argued that the three major outcomes of staff

development were: (i) change in classroom practices, (ii) change in the beliefs and attitudes of teachers and (iii) change in the learning outcomes of the students. Guskey felt that the idea of changing beliefs and attitudes was not necessarily critical in the initial stage (especially in large-scale change programmes), because although it was important that teachers had some input at this juncture, it was ineffective and did little to significantly change attitudes and enhance commitment to change. So Guskey would put change in teachers' classroom practices first, followed by change in student learning outcomes and finally a change in the beliefs and attitudes of teachers. As he states: "...significant change in the beliefs and attitudes of teachers is contingent on their gaining evidence of change in the learning outcomes of their students" (p7).

Rosenholtz (1989) found that commitment had to be tempered with certainty if the process of change was to be successful. Furthermore this combination increased teacher motivation to create a more refined teaching and learning environment where student outcomes would dominate in a learning-enriched school environment. Newmann and Wehlage (1995) felt this could be achieved through the development of a professional learning community (PLC) which would act as a conduit for teacher exploration of pedagogical issues and change development programmes. These PLCs would be different from a discussion forum in that they gave teachers a (i) specific focus on the clear purpose of all students' learning, (ii) engaged teachers in collaborative activity to achieve this purpose, (iii) teachers took collaborative responsibility for student learning, (iv) schoolwide teacher PLC's would have influence on the levels of authentic classroom pedagogy and (v) schoolwide PLC's would influence the level of social support for student learning and performance. These PLC's would, in other words, act (amongst other things) as school based continuous professional development programmes.

Stoll *et al.* (2006) argue that there is international evidence to support the assumption that educational reform depends on teachers' individual and collective capacity to promote pupil learning. This capacity is a complex blend of

motivation, skill, positive learning, organisational conditions and culture, and infrastructure of supports. From this scenario, Stoll *et al.* believe that professional learning communities can create capacity building which in turn can foster sustainable improvement and reform. In this study, Stoll *et al.* argue that teachers' sustainable responses to change programmes are enhanced by the introduction of PLC's. They see PLC's in terms of having; (i) shared values and vision, (ii) collective responsibilities, (iii) reflective professional inquiry, (iv) collaboration and (v) group and individual learning.

Gallimore and Goldenberg (2001) found that effective use of collaborative teaching needs to be supported by professional learning communities within the school environment. They use the research on Freeman Elementary School as an example of a situation where when collaborative teaching was introduced into the school it went from a state of isolation and poor performance to a fully developed collaborative organisation in which its students realised a high level of literacy achievement – all supported by the functions of the PLC. DuFour (2004) echoes this in his study of Adlai Stevenson High School when a systematic collaborative approach to student academic issues was developed which in effect moved the emphasis from what teachers were expected to teach to what students were expected to learn and how this learning was to be properly understood. This movement incorporated an effort by the teachers to understand why students experienced difficulty and how they could as educators enable the students to overcome these difficulties. DuFour looked at the reality of the results issue and concluded that the PLC bases its success on results and that a routine collaboration of the PLC participants allows for identification of weaknesses within the student learning process and the establishment of goals that can be worked on to achieve this success (DuFour, 2004 p. 3).

Hiebert *et al.* (2002) suggested building a useful knowledge-base for teachers - using their knowledge in the first instance. They felt there was an opportunity to tap into the skills and expertise of the practitioner and identify and transform these skills into a professional knowledge-base for teachers. Evidence

supported the assumption that professional development yielded the best results when it was long-term, school-based, collaborative, focused on students' learning, and linked to curricula, yet it has been found that most professional development was intellectually superficial, disconnected from deep issues of curriculum and learning, fragmented and non-cumulative (Ball and Cohen cited in Darling-Hammond and Sykes (eds.),1999). Furthermore in-service was used as a platform for up-dating skills and not as a base for deep critical thinking around the issues of curriculum, teaching and learning (Fullan, 2001). The problem lay in the way the teaching profession is viewed because the resources that are focused on professional development and the way this development is conducted, does not take into account the need to have an empirically validated theory of teaching that could inform teacher education. What you have instead, is a series of workshops based on instructional techniques in an environment that ignores professional learning. In addition teacher practices are seen as common sense and this undermines any attempt to professionalise the learning (Fielding and Moss, 2011).

So, the literature has found that professional teacher development was useful in the context of reinforcing and developing learned skills but that it generally lacked an appropriate change focus. It did not foster an acceptable environment within which change action could take place and often failed to be supportive and collaborative in nature. It concentrated on subject specific skills and ignored the deeper issues of pedagogical change and student learning. It tended not to engage on any meaningful change level, focused on enhancing delivery skills and rarely challenged the status quo. The literature suggested that changing belief systems in the first instance was not necessary and that transforming classroom practices followed by the change in student learning outcomes should come first.

To support the idea that professional development could be a useful tool in the change process, the literature suggests that the use of the professional learning community as an effective tool in supporting school based teacher development is a real possibility. It examines the idea of the PLC as distinct from a discussion

forum and sees it as having a role in the active engagement and development of new pedagogical practices. In effect the literature points to the idea of teachers taking control of their own professional development programmes and designing them with educational change as the focal point. This would magnify the effectiveness of the collective rather than allow for individual innovation which could remain localised and isolated. Research has established that collaborative teaching and learning is effective because it encourages the sharing of useful pedagogies in a supportive environment. This in effect means that the teacher has input from the outset and that educational reform is possible because the implementer of the change focus is also involved at the initiation stage. In practice this establishes a knowledge base for teachers where they can exchange issues concerning the curriculum and aspects of learning (the opposite of the scenario created by traditional staff development programmes according to the literature). Another significant element that influences teacher responses to educational change is the school culture. This often defines how change is received within a school and thus has a bearing on the challenges that teachers identify as they engage with the change process.

The School Culture

It is argued that a definition of school culture is problematic (Stolp, 1994). The term has been used synonymously with a variety of concepts, including "climate," "ethos," and "saga" (Deal, 1993). For expediency I feel that Stolp and Smith's (1994) definition is appropriate in the context of this case study. They argue that school culture is determined by historically transmitted patterns of meaning that include the norms, values, beliefs, ceremonies, rituals, traditions, and myths as understood by members of the school community. This system of meaning often shapes what people think and how they act. Tuohy (1999) saw the school culture as playing a major role in how teachers responded to the change process. He felt that in order to understand how teachers' interpreted change it was important to have a deep appreciation of the organisational culture of the school and assess how this affected the individuals within the

organisation. He saw these individuals as living according to six categories within a complex matrix. These categories included context (the circumstances in which the organisation exists; time, place, culture etc.), perspective (the values and judgements one makes based on context), perception (a combination of context and perspective where the view is determined by the historical elements of circumstance), desiring (where all the above elements combine to elicit reaction that can be either attractive or repulsed-based because the human person is not a passive observer of the universe but an entity that necessarily interacts with it), choice (where desire focuses intention enabling decision or choice) and habit (which is a combination of the first five categories and which give rise to habitual ways of thinking and action). Tuohy likened these categories to a Rubik's Cube where random colours made up the normal patterns of the confused state of the school culture but that a deeper analysis would show a continuity of colours before it went back to its natural random state. Tuohy modified Tetlow's (1989) model to reflect the six dimensions of interdependence so that the structure could be used to solve problems which transcended the minutiae of individual relationships. Due to the fact that these dimensions were not linear, their reciprocal nature reflected a need to understand them as an overall statement rather than as isolated incidences that determine outcomes. So, for example, habit may have given rise to choice but choice may also have led to habit. Understanding the nature of these interdependent elements and where they fit within the organisational context could allow for a deeper understanding of the school culture. According to Tuohy, understanding and developing culture within the organisation demands the incorporation of all six aspects of the structure where an appreciation of the context and perspective can be achieved when individuals are sharing their perceptions in a milieu where they can review their habits and choices.

In summary, the literature explores the notion that promoters of change and teachers together need to have a deep appreciation of the organisation and culture of their school if they wish to pursue educational reform. It suggests that underlying complexities of school culture need to be examined and patterns

established if teachers are to interact successfully with change action. The delivery of these patterns will establish a model of reflection that can be used to solve problems associated with the diverse and complex nature of the individual relationships that so confuse the school environment. Unless this is done, change will be difficult to achieve.

Research and the Teacher Response

Research informs practice, but there is a significant gap between theory and practice in terms of the actions of teachers as implementers of educational change. The lack of a perceived common purpose between the roles of theorist and implementer has left untapped a knowledge base that could inform, on many levels, the process of change. So what role does research play in developing and sustaining change practices within the learning community of teachers? Hiebert *et al.* (2002) focused on the issues associated with the creation of a shared knowledge base. They found that teachers rarely drew from a shared knowledge base to improve their practices and they did not routinely locate and translate research-based knowledge to inform their efforts. Teachers did not see as valid the necessity to understand the conceptions and misconceptions of their students and viewed the need to plot their students' learning trajectories or devise alternative teaching practices as unnecessary in order to deliver the curriculum. In essence educational research is not seen as a compelling tool in the development of a professional learning culture and this is compounded by the difficulties associated with the translation of research in the context of useful classroom practices (Hiebert *et al.* 2002). The normally rigorous conditions under which research is conducted would assume that the data developed from the investigation would be trustworthy and relevant in terms of the creation of a knowledge base. However research has indicated that this is not always the case and that the knowledge teachers' use can be very different from that produced by the educational researcher. This type of knowledge (commonly called craft knowledge or pedagogical content knowledge) is experienced by millions of teachers all over the world every day. However it is unregulated and does not go through the same rigorous process

as educational research. Nevertheless, it is still critical in its contribution to the teacher's knowledge base. This issue and the relationship that exists between craft knowledge and educational research is vital if a professional learning culture is to be developed. This then can be used to generate successful change practices in an environment that professionalises the learning of the teacher as opposed to creating a number of quick fix tools that can be used to deliver a curriculum that is not necessarily understood in the context of deep pedagogical analysis. So how do we join these two elements together? According to Hiebert *et al.* (2002) we begin by taking a closer look at the practitioner's knowledge - the kind of knowledge that is generated through active participation and reflective practice. This could then be disseminated in the public world in an environment that enabled it to be sanctioned, verified and improved within a professional learning culture. They found that the processes which created such an environment necessitated the teachers participating in the following activities; (i) elaborating on a given problem and developing a shared language for describing the problem, (ii) analysing classroom practice in light of the problem, (iii) envisioning alternatives, or hypothesising solutions to the problem, (iv) testing alternatives in the classroom, and reflecting on their effects, and (v) recording what is learned in a way that can be shared with other practitioners. What Hiebert *et al.* (2002) found was that if the teachers engaged in this work then they could create knowledge that was linked to practice in two ways. Firstly its creation was motivated by issues around practice and secondly each bit of knowledge could be connected to the process of teaching and learning that actually took place in the classroom. The specificity of this knowledge makes it more powerful for the teacher than does the more general and abstract knowledge that is created by educational research and even if the very nature of this specificity means that its focus is subject based, that does not mean that the principles laid out in the acquisition of such knowledge cannot be applied elsewhere. The researcher will make distinctions about knowledge that the teacher is not interested in because all he needs to do is make connections. Thus the researcher could identify all kinds of teacher knowledge (such as content knowledge, pedagogical knowledge and craft knowledge) and also student knowledge (what they know and how they learn), but for the

practitioner these kinds of knowledge are intertwined and organised not according to type but in how they are related in terms of the problems they are addressing. Karl Popper (1972) described three worlds of knowledge. The physical and real world existed in world one; in world two lay the individual's knowledge and skills and in world three were the shared ideas, available to all to use and store as applicable and ultimately pass on to the next generation. If proper use of professional knowledge is to be achieved then teachers have to live in all three worlds and not just the two (the physical and real world and the world in which individual, unshared knowledge exist) that Hiebert *et al.* believe they occupy.

Ball and Cohen (1999) see the relationship between research and educational practice from the viewpoint of what a teacher needs to know about the curriculum in the first place. They then use the example of multiplying two decimal numbers together whose answer is to four decimal places. They argue that it is not enough to know how to achieve this answer but also why the answer is shaped in the way it is and the different ways in which the student internalises this information as well as the different routes they take to achieve this answer. Professional teacher development has to be about more than arriving at the answer. It has to take into account how the student learns, how to identify his or her strengths and weaknesses, developing techniques which help identify what interests the student and learning how to interpret student ideas about the academic subject. Once all this has been done the information has to be presented in a way that can be interpreted and shared (Stoll *et al.*2006). In this new system teachers and researchers would work side by side. The doors of universities and schools would be open to each other in a system where teachers and researchers would be partners, each gaining from the others expertise. Teachers could, for example, test difficult to implement but promising new theoretical models and draw new hypotheses with the researcher in the construction of new academic programmes. Researchers in turn would have greater access to investigational contexts and populations in an environment where their research would be constantly updated. The research literature considers these notions as realistic and achievable if a system is designed that

encourages sophisticated teacher development programmes in an environment that recognises the professional and complex nature of the teaching role (Cooper *et al.* 2009, Fullan, 2009, Hargreaves, 2009).

The literature with regard to the impact of theoretical research on teachers in terms of their responses to educational change highlights a number of issues. It sees an unnecessary separation between researcher and teacher in what is a common objective – the enhancement of student attainment. As a result of this teachers lack a collective knowledge base from which they can develop change practices. This lack of information is compounded by the fact that teachers do not see as valid the need to understand the conceptions and misconceptions of the students they are teaching and furthermore do not see as compelling the need to apply research findings to the development of a professional learning culture. Teachers view their knowledge and skills as adequate in generating successful practices that are long-term and sustainable rather than rapid interventions that react to current situations. Research in this area proposes that a combination of teachers' knowledge and reflective practices could result in professional knowledge that can be sanctioned, verified and improved within the professional learning culture of the school. The combination of specific knowledge as experienced by the teacher and the more general and abstract knowledge of the researcher when properly challenged can create opportunities for the development of both pedagogical practices and research findings. The literature points out that research enable the teacher to understand the 'why' of the student learning culture as opposed to just the 'how'. So the reciprocal relationship between teacher and researcher would allow a comprehensive understanding of the situation being studied and give the teacher the opportunity to engage in change practices at a much deeper level.

The issues explored so far have looked at why teachers' react to circumstances of change within the context of both their environment and the people they interact with. It is now necessary to examine why teachers resist change within these contexts.

Teacher Resistance to Change

Fullan (2011) believes that for change to be effective it has to be driven by those implementing it at local level. If there is no sense of ownership at this level then it is quite likely that these initiatives will never realise their potential and nothing will change. For many teachers the idea of change is not particularly problematic but the idea of being changed is (Tuohy, 1999). Furthermore many schools become overloaded with change initiatives which lead to a disconnected, episodic fragmented and superficial experience of change (Fullan, 2001). The chaos that ensues from this overload reaffirms the teachers' decision to distance themselves from supposedly fashionable trends and potentially effective initiatives become viewed as negative in terms of the learning experience of the student and teaching experience of the teacher (Stoll and Fink, 1996). Kanter (2011) suggests a number of reasons why teachers resist educational change. Teachers are often surprised by a change process that was externally imposed and one in which they were not consulted on. This lack of consultation triggered excessive uncertainty, loss of control and routine as well as the fear of work overload, especially in areas in which teachers are unsure about their own competencies. Teachers also felt that change was never restricted to one aspect and that a ripple affect meant that it had the potential to influence a number of different areas as well as projects and other curriculum related activities.

Resistance to change is complex and multi-faceted. Fullan (2011) proposed that a blend of top-down, bottom-up practice could be used to create a form of reculturing which would be followed by an appropriate restructuring of the apparatus of the change process. However this required changing the culture of the school which in turn changes the theory of acceptability that lets people know how they should behave (Sergiovanni 1996). Sergiovanni argued that the need to change the theory made the task of long-term change extremely difficult. He also argued that with all major stakeholders in the school community dealing with the realities of everyday life within a school who had time for theories? However he believed:

“Our theories.....have led us to create the kinds of schools we have now. And if we want to change them, we have to start by creating new theories - theories that fit better in the context of schools, and fit better what schools are trying to accomplish”. (p.3)

Winslow and Solomon (1993) looked at resistance to change in a slightly different way. They felt that outcomes were resisted and not the actual change initiative itself. The actions of participants in the change process can be at odds with their personalities and their research described ‘normal’ people who were intelligent, competent and experienced as becoming stodgy, sluggish, disruptive and even disobedient if involved in a process in which they had no real input. The danger to the process lay in the subtleness of the damage that could be visited on the change process. Fink and Stoll (1998) argued that teachers’ resistance to change was “natural and predictable” (p.183). The fear of failure or of the unknown, lack of confidence, differing perspectives on what constitutes good change policy, wrong timing, fear of loss or status and diminution of rights and privileges all constitute reason within the literature on why change fails (Smitt, 2003).

In conclusion, when educational change occurs teachers do not respond in the same way (Hargreaves, 2005). Gender (Datnow, 2000), subject speciality (Goodson, 1988) and personal orientations to change (Hall and Hord,1987) can all affect how they respond to specific educational changes and to change in general. Beliefs (Pajares 1992, Gregoire, 2003, Davis 2006), emotions (Beatty 2000, Evans 1996, Van Veen and Slegers 2006, and Kelchtermans 1993), professional development (Guskey 1986, Fullan 2001 and 2011, and Stoll *et al.* 2006) and the school culture (Tuohy, 1999) also play a part in the way teachers respond to the change process and so it is clearly established that change in the context of teachers is a highly complex issue (Fullan, 2011).

In summary, change overload affects how teachers interpret new change practices. The disconnection that exists between the change initiator and the

change practitioner can be frustrated by the amount of change required and the lack of input from the implementer at this initial stage. Teacher resistance to change manifests itself most commonly in a superficial experience of the change process which results in lack of engagement and a fragmented view of what is required. A lack of consultation in the process also affects teachers' views on change. It can cause excessive uncertainty and the loss of control and routine. The sense of a lack of competency in the implementation process is also problematic for teachers and an underlying factor in why they resist change. The literature also poses the question of what actually is being resisted. It is argued that change outcomes are often most resisted and not change practices themselves. However, as outlined above, it is generally accepted that when change occurs, teachers respond differently according to a number of factors including, gender, subject speciality and a person's general orientation to change.

The role of the teacher is crucial in the change process and how teachers respond to change is guided by a multitude of factors. One of these factors is the role of the school leader in the context of change initiation and implementation. They have a significant influence on the direction and pace of change and often their relationship with the teacher will determine how successful the change project will become.

School Leadership and Teachers Responses to Change

Although school leaders have traditionally been tasked with organising and sustaining curricular provision in schools, there is a growing tendency to shift attention away from these activities and focus more on creating cultures that are innovative and adaptable (Kruse and Seashore, 2009). School leaders therefore are hugely important in the role they play in implementing and leading change at local level (Fullan, 2011). Many factors need to be taken into account but at all times the leader needs to be cognisant of the responses of the teachers to the change programme. This is necessary as the teachers are the implementers of the change initiatives (Hargreaves, 2005). Spillane *et al.* (2002) looked at the

issues of translating change policy from national level to local level and reported that the main issues were concerned with the complexity associated with the human sense-making process. Being cognisant of Marris's (1975) three levels of social change was vital if the implementation of this change was to be successful. Knowing the type of reform required was essential if the level of change was such that it required the discrediting of existing schemas and frameworks (Marris's third level). Indeed Marris extensively developed the notion of the rejection of change. He felt that rejection must play itself out and that if those who had the power to manipulate change acted negatively if their explanations were not immediately accepted and "...shrug off opposition as ignorance or prejudice," then "...they express a profound contempt for the meaning of lives other than their own."(p.166) Furthermore, he criticised leaders of change who did not allow others the opportunity to absorb these ideas in a manner in which they themselves came to accept them.

Kaniuka (2012) comments on the fact that school culture can either support or hinder school improvement (Cuban, 1988 and Fullan, 2007). Within this environment however is the critical role of the teacher and his capacity to engage in the reform process. Elmore (2004) argues that teachers lack the opportunity to collaborate during this process and share their experiences which are a prerequisite to teachers shaping their views on teaching, learning and decision making. Mayrowetz (2008) agrees that the school reform is limited by the school culture but also argues that the school leader has a pivotal role to play through his understanding of how teachers' experiences and context influence capacity.

Crowther *et al.* (2002) define teacher capacity as the teacher's ability to make effective school reform decisions. Guskey and Peterson (1995/1996) recognise that teachers work under demanding conditions that make it difficult for them to develop expertise in the most current ideas on student learning. Without systematic procedures for acquiring this expertise (David, 1995), teachers cannot properly engage in the process and are thus limited by school-based

management characteristics which define the teaching and learning environment in the school. As Kaniuka (2012) argues:

“This suggests that it is ambitious to assume that teachers who have worked in schools that have historically experienced poor management, inferior student performance, or lack of attention to improving teacher capacity would be able to effectively conduct school improvement”(p.328)

Research has argued that the capacity of the teacher may be directly related to the types of experiences and successes that he has had (Elmore, 1995, Fullan, 2007, Attard, 2007). Attard recalls as a teacher that habitual routine distanced the practitioner from the process of changing and improving practice (p.147). Vitale and Kaniuka (2009) found that although teacher experiences could limit reform, the lack of supportive experiences profoundly added to this limitation. Rogers *et al.* (2010) supported this assumption and argued that the environment in which these experiences were gained was heavily influenced by the structures of supports that were in place. Ross and Gray (2006) explicitly target the role of the principal in this situation and make a correlation between this and teacher efficacy. Bennett (2003), Gronn (2008) and Leithwood *et al.* (2004) argue that more research needs to be conducted in this area. A crucial element of change according to these researchers is the role and style of the school leader in terms of his influences on the capacity of the teachers to engage with the change process. Change needs to have officially designated models of planning, leading and managing the change in question (Thomson and Sanders, 2009).

To summarise, research in regard to the role of the school leader in the process of change clearly points to the requirement of the principal, as school leader, to understand and communicate properly the type of reform needed within the context of the school culture. The principal also needs to understand that any change process necessarily goes through a period of negativity and rejection before its meaning becomes clear and implementation ventured. Communication in this phase is essential otherwise success of the change

programme can be undermined. We have noted previously that the school culture impacts on educational reform. In the case of the school leader, research has established the influence he has on the culture of the school. It appears from the literature that how the school leader interprets the experiences and capacity of teachers in the context of this culture has a significant impact on the development of change growth within this environment. However the literature also points to the fact that school leaders need to be organised and systematic in their dealings with the needs of teachers who require new skills within the change milieu.

Students and Teachers Responses to Change

Czerniawski *et al.* (2009) argue that one of the fundamental challenges for educational research is making the journey from research to policy and practice. They argue that for too long the perspective of the learners has been ignored in educational research and “...rarely are their voices taken seriously into account in policies devised to improve teaching, learning and achievement” (Wood, 2003 cited in Czerniawski *et al.* 2009), despite the fact that learners are expert commentators. This paper challenges the notion of the voice of the student and attempts to legitimise the methodological attempts by researchers to define its characteristics and impact on the change process. Rudd (2007) argues for a radical approach to what is termed the ‘learner voice’, one which becomes an empowering experience for learners and facilitates a change in institutional and cultural attitudes from formal and traditional methods of consultation, which in the past have excluded some students, to a new and progressive model wherein learners have ownership, responsibility and management powers (Czerniawski *et al.* 2009). However, the difficulty with this process is the plurality of voices especially in the context of the diverse nature of the modern school which has to take into account a plethora of cultures, socio-economic circumstances and family backgrounds, often in an environment that is under-funded and rigid in how its learning outcomes are assessed.

The dilemma then is to establish if the voice is genuine and how to interpret it in a practical way that adds to an understanding of its impact on teachers' responses to change. According to Fielding (2008) researchers and practitioners have to work towards easing the tensions that exist around the validity of the student voice. He argues that it is difficult if not impossible to realise, with any credibility, a scenario where it can be legitimate and effective as a tool for implementing long-term and sustainable change in both the school organisation and as part of the learning process.

Freire (1970) believed that teachers had to immerse themselves in the community they were serving in order to truly understand them but failing this he made two crucial points in relation to the culture of democratising education. Firstly he felt that language was a key indicator of a democratic process and that its neutrality was impossible to achieve, so teachers had to be cognisant of its power in their interaction with students. He also believed that if the structure did not permit dialogue then this structure must be changed. Fletcher (2005) argued that teachers should place the experiences of the student at the centre of learning within the classroom. He felt that the school experience should reflect reciprocal learning patterns between all stakeholders and that the student should be a partner in the school change process. He went on to explore schools in his study that are achieving this level of partnership and thriving on the democratisation process as the voice of the student becomes more proactive within the teaching/learning relationship. So what is the point of involving students in the change process and how does this relate to the teacher in the context of their role as educational practitioner?

According to Fletcher (2005) if you engage students as partners in school change, it strengthens their commitment to both the change process and education in general. If you engage students on a superficial level however you are in danger of creating distance between the objectives of change and the commitment of the student to engage in this change. Therefore the student has to have a voice that is listened to, respected and allowed to make a difference and not there as a passive recipient of a process that he is required to rubber

stamp. This is not meaningful engagement and simply reaffirms the student's negative notion of his role within the school community. Rudduck *et al.* (1996) suggests that in order to understand how students learn, they should be asked in a systematic way that encourages research to take account of the issues they face in their everyday learning lives. This has implications for the teacher because if the experiences of the learner are central to the learning process then the teacher needs to base not only the subject matter of his lesson in this setting, but also take into account the socio-cultural nuances that interpret these experiences and make them real for the student (Fletcher 2005).

Kohn (1993) argues that choices made by students within the school organisation are invariably associated with extracurricular activity and have little relevance in terms of the core issues of school reform. He goes on to assert that, in fact, schooling is about doing things to children and not working with them. This system is then supported by an array of punishments and rewards that are used to enforce compliance with an agenda that students rarely have any opportunity to influence. For Kohn and Fletcher (2001 and 2002) the benefit of a system where positive student involvement is encouraged was substantial. Their research concluded that student general well-being was enhanced in those schools where they had positive participation in reform programmes and behaviour improved and academic achievement was increased when the student's voice was listened to and acted upon. They also found that teachers who actively encouraged this type of student involvement benefited physically and emotionally from allowing the students to take a proactive role in their learning. However Kohn (1993), in recognising the difficulties associated with letting go of teacher authority, says; "Parting with power is not easy, if only because the results are less predictable than in a situation where we have control." (p.18)

Hargreaves and Shirley (2009) have argued that education systems and schools should focus on students as the driving force of educational change. This would mean that the student would need to become the owner of his own learning. Hargreaves and Shirley call these students global entrepreneurs and

Hargreaves (2009) believes; “What better theory-in-action could there be than one that creates millions of change agents for the future?”(Hargreaves 2009, p. 26).

Hargreaves and Shirley (2009) challenge the traditional notion that students are merely targets of change initiatives and develop the concept of them being active partners in the process. In this way students are allowed to shape their own educational experiences and redefine schools as environments in which they draw on resources to satisfy their own needs, to support their growth, and to help realise their potential rather than places where they are forced to acquire knowledge and skills imposed upon them.

Mitra (2008) argues that the power imbalance that exists in schools is critical for understanding educational reform because change programmes are usually about shifting power relations. Questions of who has a voice in decision making become important especially in terms of student input into identifying problems that need to be addressed in the context of school improvement (p.224) The relationship between the students and the teacher are thus inextricably intertwined with the change process if, as Hargreaves and Shirley (2009) maintain, students are critical to the success of any change programme. However Mitra (2008) argues that; “the power and status distinctions in school settings provide a dramatic form of asymmetry-especially due to commonly-held norms of deference to adult authority and the separation of adults and youth roles in schools” (p.227) This is compounded by teacher resistance to the students voice on acute educational matters. However Kohn (1993) found that teachers who gave students a voice in their education benefitted from the experience in a number of ways including an increase in student participation in the classroom, less instances of disruptive bad behaviours, and the opportunity to interact with their students more closely due to higher levels of self-discipline and self-motivation. Kohn acknowledged that the teacher often had limited input into students interacting in the decision-making process (due to highly controlling school administrations for example) and recognised the fact that students often resisted decision-making themselves. He put this down to the

lack of encouragement from within the school to participate in this kind of behaviour.

In conclusion, the student has a significant impact on how the teacher conducts himself in the milieu of change. Hargreaves and Shirley (2009) would argue that unless the teacher accepts the integrity of the student voice in the process of educational change then little will actually change. Lack of reform has an impact on all members of the school community (Fullan 2011) and improvements in student achievement would be difficult to realise without a combination of all the elements of change (Kohn and Fletcher (2001 and 2002)). As Hargreaves and Shirley (2009) state:

“Always remember: without students there would be no teachers. Their voices matter a lot” (p. 82).

It is clear then, that the student voice, which is crucial in the change process, is rarely heard although the consensus is that their contribution would be significant as they are expert commentator on learning. However the difficulty in inviting the voice of the student into the change programme, according to the literature, is the problems associated with the multitude of voices (Fielding, 2008). There are concerns over the genuineness of the voice and how to interpret it in terms of the teacher’s response. There are tensions within this process (in terms of the perceived validity of the student voice) that affect change and this needs to be addressed before any long term sustainable change can take place (Czerniawski *et al.* 2009) . If the teacher can place the experiences of the student at the centre of learning within the classroom, reciprocal patterns of learning can be established by all partners in the process. This has the effect of strengthening both the student’s commitment to school and the teacher’s commitment to change (Fletcher, 2005). However if the voice is heard but not acted upon this will confirm for the student his negative notion of his role within the school community and have the effect of distancing the partners in the change process (Mittra, 2008). The literature also points to the lack of research in the field of student learning. Teachers cannot engage in any

kind of systematic way in arriving at an understanding of student learning if the information is not present. They have to rely on anecdotal and unregulated information to form their opinions and this can be problematic when trying to deliver a curriculum in a way that is meaningful for students.

Some research suggests that students should be the driving force in educational change, that as an active partner in the process they can take control of their learning, support their own growth in this area and thus realise their full potential (Hargreaves and Shirley, 2009). However the status quo is tipped in favour of the teacher as the dominant partner in the process and the teacher is reluctant to relinquish this state of affairs. According to Kohn (1993) until such time as the teacher is prepared to share the responsibility of learning equally with the student this imbalance will remain and the impact of the student on the responses of the teacher to change will remain unpredictable.

Conclusion

The central theme of this research study is concerned with the way teachers respond to educational change. It is also concerned with explaining these responses. The literature review reveals that the success or failure of a change initiative is often determined by how the participants of the change interpret the initiative. This interpretation is subject primarily to their personal beliefs and unless change initiators are cognisant of these personal beliefs, the programme could easily fail. Although personal belief systems are crucial, so are the teachers' emotional state and their sense of self. All three are shaped by a number of factors both internal and external but what is clear is the fact that they impact on the teacher's perceptions of their own professional identity and this has a direct correlation to whether teachers accept or reject change.

The literature notes the importance of including teachers in a change process from the beginning. This not only creates a sense of ownership for teachers in the context of the change but it also assists them in understanding the process. They can contribute to the design of the initiative as it grows and develops new avenues for its expansion. However research shows that in most cases they are

not engaged at this early stage. This lack of involvement creates indistinct and unclear patterns of progression and has the effect of de-motivating teachers. Due to the fact that teachers' pedagogical practices are so closely linked with their identity (which is formed by their belief systems), they cannot separate their emotions from their response to these unclear patterns of change. Even the use of professional development to overcome the problems of capacity in the context of different pedagogical practices is shaped by how teachers perceive the relevance of professional development in terms of their own needs and their views on change.

An important and emerging structure to support the process and outcome of change and involve teachers as active collaborators in the process is the development of the professional learning community (PLC). The learning dynamic within this context is vital for the development of capacity and the application of pedagogical skills at the classroom level. In the PLC educational reform is not only discussed, it is developed into a knowledge base that can be accessed by all participants of the PLC in a way that transcends the traditional discussion forum and professional development and support practices. The PLC can also be used as a forum for understanding the school culture in that it gives the teacher (on a collective basis) the opportunity to interpret and understand the complexities of the school culture as it and they become immersed in the process of change.

The importance of the role of the school leader in the context of change cannot be underestimated. The leader plays a pivotal role not only in creating an appropriate environment for change to occur, but also in motivating teachers to engage in the change programme. The core function is to balance and drive the change while simultaneously taking into account the needs of the teachers who are implementing the programme whilst leading the underlying cultural change which is an inevitable consequence of the change process (Fullan, 2011). Within the PLC structure the role of the leader can be better defined and modulated in accordance with the emerging change and development of the school

In terms of the potential impact of research on the teacher's response to change, I have outlined the difficulty of the disconnection between the theorist (the researcher) and the practitioner (the teacher). The opportunities presented by the PLC have the potential to counteract this problem by developing small research studies within the milieu of the PLC.

The literature pertaining to the role of the student in terms of the teacher and change was also explored. I found that a lack of acknowledgement and accommodation for the voice of the student impacted negatively on both the change process and the way the teacher perceived the process. The literature revealed a general reluctance on behalf of teachers and schools to engage student views in the development of a change programme. It is argued that students are expert commentators on their learning and that this expertise is essential to the creation of long term, sustainable and successful change practices. Their lack of input is a reflection of how they are perceived in terms of the validity of their opinions and this undermines the role of ownership in terms of their learning within educational reform.

The literature on educational change is extensive. It is important that issues are revisited so as to allow for accurate assessments of what is required in our education systems to maximise student outcomes. This review took a narrow focus and concentrated on a number of factors in the professional lives of teachers that have been found to inform their response to change. Its remit was to investigate these factors so as to inform the case study findings.

Chapter Three – Context and Cooperative Learning

The Context - Introduction

This research study is concerned with describing and explaining teachers' responses to educational change. Educational change is concerned with enhancing student engagement and achievement within an education system (Newmann *et al.* 2000). However it has been found that successful change is notoriously difficult to achieve (Fullan, 2011). There are many reasons for this but what seems to surface on a regular basis is the lack of active engagement by teachers at all stages of the process (Hargreaves, 2009). Fullan (2001, 2011 and 2013) puts teachers at the centre of the change process and without their contribution and participation change struggles to maintain meaning and sustainability. This lack of teacher involvement gave the research a certain momentum. Ultimately as Principal in the school I was interested in how teachers could influence the change process within the educational setting of a small vocational secondary school and from this, determine approaches to change that could be valuable in the context of future educational reforms both within our school and beyond. Research (Crowther *et al.* 2002, Cuban, 1988, Fullan, 2007, Tuohy, 1999 and Hargreaves, 2005) clearly outlines the many difficulties associated with change which can often be unfocused and misinterpreted. It also highlights the importance of the school leader and their influence on the success of a change initiative (Leithwood *et al.* 2008, Spillane, 2005, Muijs and Harris, 2003, Frost and Durrant, 2003, Harris, 2003). I wanted to take cognisance of these issues and introduce a model of change that was accessible and had clarity in the context of teacher understanding of its requirements. So I introduced cooperative learning as a vehicle to test teachers' responses to change. I did this because the cooperative learning model was accessible and provided relevant materials that could be used by teachers at the induction stage. The design of the approach also allowed for cross-curricular interaction and no subject area was excluded due to specific requirements of the methodology.

This chapter is divided into two main sections. It will begin with an examination of Fairhill Community School in the years preceding the introduction of the change programme and describe the situation in terms of the need to change. It will then outline the stages of the change programme's introduction phase, give some consideration to teachers' attitudes at this specific time and describe the situation in Fairhill Community School as the change programme was instigated. The second part of this chapter will detail the main concepts of cooperative learning. This was the new teaching and learning programme that was used as the vehicle for testing teachers' responses to educational change. The examination of the cooperative learning methodology will clearly indicate both the complexities and usefulness of its practices and will help contextualise what the teachers faced as they began the change programme. It will identify strategic differences between traditional group work and cooperative learning, detail different cooperative learning group strategies and examine the importance of the socialisation process. Finally it will critically assess cooperative learning's effectiveness in relation to student outcomes.

Fairhill Community School

Fairhill Community School is a small secondary school situated in the West of Ireland with a population of approximately 240 students. It is managed under the auspices of an Educational Training Board (ETB - formerly VEC) and is one of three secondary schools in a medium size town which caters for urban and rural based students. It is the only co-educational school in the town and has a teaching staff of twenty with five special needs assistants and two caretaking staff. Fairhill is designated as a DEIS school (Delivering Equality of Opportunity in Schools – this status granted in 2007) which means it attracts extra funding and a more substantial teacher allocation due to its high number of designated disadvantaged students. In the recent past the school had been through difficult times. Between 1997 and 2004 student numbers fell by 70% and in the year 2003/2004 over 35% of the student population left and went to other schools in the locality. This decline seemed to adversely affect the teachers who became disengaged and increasingly reluctant to get involved in any processes that

might check this decline and rebuild the school's reputation. Belief in the school as a viable educational option was being questioned by the local community and its very existence was at risk at the time I was appointed Principal in September 2004. In essence the school was 'sinking'(or failing to grow and respond to its environment so becoming ineffective in terms of the services it was providing to its stakeholders - Stoll and Fink, 1996, p.91) and some form of radical intervention was necessary if it was to survive.

Fairhill Community School – Background

"...what's the point?"

This was the sentiment expressed by one of the teachers in Fairhill Community School when I asked him in early 2005 why there was no short to medium term planning in the school. He went on to explain: "This school always did well and competed with the other schools in the town. We never needed school planning and schemes of work, or in-service really... we knew the curriculum back to front. Nowadays though all we hear about is what we need to do to be good teachers – well I am a good teacher and I haven't done a scheme of work or a plan since college and I don't intend to start now..." When I asked him why the number of students in the school had fallen so dramatically in the last number of years he replied: "The schools in this town go in cycles - we are on a down slope but it will eventually pick up - my only concern is that we are attracting poor students who don't give a damn about education – you can tell this in their results – most are ordinary level candidates who are lucky to get 200 points."

This attitude was widespread among the staff in Fairhill Community College in 2005. There was a resistance to the changes that were coming from the Department of Education and a high level of union activity in the staff room. As part of a needs analysis conducted in the school in my first year (December 2004/January 2005), I asked the teaching staff (nineteen in total) a number of questions regarding general issues of concern in the school (I used a short questionnaire that was predominantly comment based. The questionnaire was

anonymous - see Appendix Two). For the purpose of this dissertation, I would like to highlight six questions and their answers. The questions were:

- How was morale in the school at the time of my appointment?
- What were the teachers' expectations in terms of the future of the school?
- How were internal staff relations?
- What did the teachers feel morale was like in the main student/parent body?
- What did the teachers' feel the students expected to get out of the school?
- What were the expectations of the staff in terms of my leadership?

The overriding conclusions I gathered from the first question was that morale was very low. 100% of the teachers believed the school was going through a difficult time and that feelings of disappointment, frustration and anger were predominant in terms of their views on the school. 73% believed the school would close in the next year or so. 63% had nearly completed their forty year service and were worried that they would be redeployed to another VEC school in the county. This would mean making a new start in a new school when nearing the end of their career. In terms of staff relations, there had been a split in the staffroom and 100% the teachers felt that some tension existed. 84% volunteered clarification in regard to this tension and mentioned senior management as a source of this conflict. In terms of teachers' perceptions of student and parent morale, 78% of the staff felt there was generally a good morale within the student body. The majority of the staff, 63% also felt that parents were happy enough although 57% said that communication with parents needed to be improved. 89% of the teachers believed that the students wished to get a decent job out of school, although 57% also felt that students wanted to go on to an apprenticeship of some kind. 21% of the staff felt that students wanted to go to university after school. The last question posed was in relation to expectations of my leadership. 84 % of the staff responded that they had no expectations from leadership. 16% expected that I would increase student numbers in the school. This snap shot of late 2004 gives a rather bleak

view of how the teachers felt about the school. Although I was only a matter of months into my role as principal, it was clear that serious issues needed addressing and it was apparent to me that it was going to take time for these issues to be resolved.

In terms of tangible issues that had to be addressed immediately, I have detailed elsewhere the problems of discipline and teaching and learning (see Introduction Chapter). However a major concern was the lack of planning in the school. The School Development Planning Initiative (SDPI) had been established in 1999 and its remit was “...to stimulate and strengthen a culture of collaborative development planning in schools, with a view to promoting school improvement and effectiveness.”⁰ (Government of Ireland, 1999, p.14). In September 2004, no member of staff had heard of the SDPI and although there was a code of behaviour, this was the only written policy document in the school. No forward planning of any description had taken place and the attitude of the majority of the teachers was that experience took precedence over written planning and policy provision. Indeed forward planning was seen merely as a paper exercise required by the Department of Education so that the various pay agreements could be seen to be being fulfilled in accordance with teaching union directives.

So, staff expectations were low when I arrived. Many teachers felt that I was there to assist the process of closure or at best rationalisation. The staff were settled and ageing, had seen school numbers decline rapidly, were trying to deal with an ever more demanding clientele, curriculum and department and as one teacher told me “we are just plain tired.” There were several different camps in the school. A small but significant minority of staff wielded a tremendous influence on the previous Principal – an influence that seemed to be focused on their needs as opposed to the needs of the whole school community. The middle ground seemed to be occupied by the majority of teachers who came into work, did their job and left. They had minimal or no engagement in extracurricular activity and justified their actions in accordance with their trade union directives. The third group consisted of teachers who were

energetic and attempting to produce positive outcomes in the school – this was the smallest grouping.

I did not know the extent of unrest when I commenced my appointment but it soon became apparent that there were serious discipline issues. The general appearance of the students, the lack of a proper school uniform, no school bag coming into school in the morning and leaving in the evening, the state of the social areas after the students had left them, behaviour at lunch time in the town and the line of students outside my door during and after lessons all indicated a very serious breakdown in normal school life. The way the students talked to the teachers was also unacceptable and the way the teachers accepted this was equally erroneous. These issues had to be tackled head on and although I had no intention of micro managing discipline I spent a great deal of time in the early part of my appointment dealing with such matters. I organised a number of staff meetings that focused on challenging behaviours and introduced a co-ordinated and consistent discipline system in the school that most of the teachers eventually felt confident in applying. This took some time to develop and implement and in the initial period my style of leadership in terms of the students was overtly authoritarian. I rigorously enforced the code of conduct (which had been written ten years previously, but was nevertheless a reasonably equitable and thorough document). I wanted to ensure that there would be no confusion and that students would be under no illusion about the consequences of bad behaviour. I spent much time dealing with irate parents who threatened me with all kinds of legal actions. However I was aware that under VEC guidelines, as long as I followed legally binding protocols, I was within my rights to act in such a manner. In truth I knew I had to stand firm on issues of discipline in order to quickly and effectively break the anti-discipline culture that had developed in the school. I also had to re-establish the authority of staff as a whole over the student body.

Some housekeeping elements also needed to be addressed. A letter was sent to all the parents outlining such aspects of the school as uniform requirements and appearance, homework, attendance and punctuality and general conduct in

school. This was later followed up with individual letters to parents of students who were regularly in contravention of the school rules. A consistent approach to discipline was introduced and expectations on how to behave were clarified. When the students began to understand what was expected of them in school, incidences of bad behaviour dropped dramatically. This took approximately six months to initiate but as a long term measure it was very successful.

However successful I was at controlling the situation in the school, it was far harder to undo the damage that had been done in terms of the wider community's perception of what was going on. A lack of discipline, low academic standards and the view that the school was about to close caused confusion when it came to our annual recruitment drives. Marketing a vocational school as an academic alternative to schools in the voluntary sector has always been difficult. The vocational school traditionally offered a practical based, less academically demanding curriculum and this attracted a particular type of student who was more interested in the trades or institutes of technology than going to university. Although I had no issue with students pursuing such courses of action, I believed that a more liberal, holistic approach to education was needed in order to attract sufficient numbers to make the school viable. So marketing this school as a viable educational alternative to the other two well established schools in the town was very difficult. However there were elements of traditional strength like the school being co-educational. The practical woodwork and engineering areas had remained strong and the introduction of higher level options in all subjects combined with the introduction of a number of new academic subjects began the process of reversing the slide in student numbers. These elements combined with a strong clear message on discipline, a revamping of the school uniform, the introduction of information technology throughout the school together with a new school name helped to make the recruitment drive in 2006 the most successful one since 1998.

The academic year 2006/2007 also saw a strategic plan developed on a whole staff basis. No school plan had ever been prepared and common goals were unclear. By creating teams to look at specific areas of change and

improvement, the staff began to take responsibility for the school on a macro level which in turn allowed me to exploit their knowledge and experience. In the initial stage of my principalship my role was narrowly defined. I was focused on implementing strict codes of conduct for both students and teachers. I had to introduce a whole school planning programme and ensure that proper procedures related to subject disciplines and teaching and learning in general (in-service, schemes of work protocols, inter-departmental and cross-curricular initiatives for example) were in place and adhered to. In essence I had to establish a sense of stability within the teaching and learning environment and re-establish school wide systems that allowed for the normal functions of a school to take place. In terms of my leadership it can be best described at this stage as within the dimension of a structural approach as described by Bolman and Deal (1991)

By 2009 the situation had significantly improved. School numbers had steadily increased, the majority of staff who had resisted change had retired (over 90%) and the extra resources that DEIS status brought all combined to improve teaching, learning and general practices. The staff were motivated, the students had a focus in terms of ambition and direction and anecdotally, the community had begun to believe in the quality of education that was being delivered in the classroom. Extracurricular activity was high and commitment from both teachers (in terms of investing heavily in school improvement programmes) and students to improve systems in the school was creating a transformation that left the school unrecognisable in terms of its shared vision from that of the school I had joined in 2004. In effect the school was ready to move to the next stage in its development (Stoll and Fink (1996) use Rosenholtz's, (1989) analogy of the moving school to describe this scenario).

It was in this setting that I began to look deeper into the pedagogical practices in the school. I strongly believe that the principal should have a role as collaborative partner and leader in teaching and learning where he leads teachers on classroom practices and methodologies. Although this is a function of the principal's role in Ireland it is not common practice and the notion that I

could sit in on a class and make critical suggestions in this context would, I believe, be resisted by most teachers and their unions. So I had to find a way to influence teaching practices that would not threaten the principal/teacher relationship, allow for the development of a change in pedagogical practices and give me a role as a partner in the teaching and learning process. The opportunity presented itself when I was invited to take part in a programme that explored cooperative learning methodology as a way of delivering the curriculum. The series of lectures and conferences that took place over a two year period challenged many notions of teaching and learning and questioned how the curriculum was delivered. This approach was attractive because its implementation was based on fundamental tenets of good teaching practice and modification of these practices was appropriate and achievable in the context of Fairhill Community School. I felt confident that the teaching staff would see merit in this new approach to classroom practices and embrace at least some of its characteristics.

As change initiator I was guided by the principles of cooperative learning and believed they could be applied to the curriculum in the school. I saw the staff as forward-thinking and dynamic and ready for a challenge and the appropriateness of the methodologies as espoused in cooperative learning would, I felt, be attractive to them in the context of their views on pedagogy. All participants of the research project had shown a willingness to embrace change, either through well-disposed views on in-service or by actually taking post graduate courses in a variety of educational disciplines. I felt that the cooperative learning process was a safe environment because it had been well tested and the teachers could always return to their 'old' world if they wished. However the key emphasis through the introduction period was on ownership of the change process. It was crucial that the teachers did not feel this was imposed upon them. I was open in my views on pedagogical practice in terms of the national curriculum and my difficulties with rote learning practices. As a staff we had often discussed teaching for learning as opposed to teaching for the curriculum and when I mooted the cooperative learning agenda as a way of realising some of these beliefs, there was a general acceptance that a structure

focused on challenging teaching practices could be established within the school.

The first step in introducing such pedagogical change was to present a number of workshops on the subject. This, I believed, would allow teachers gain the necessary knowledge so as to enable the process of implementation. An added benefit was that the workshops created a forum for discussion whereby strategies could be developed and analysed. These workshops developed out of a staff meeting that had taken place at the beginning of the year where the cohort of research project participants was identified. These workshops were a precursor to the research project as teachers needed to be skilled in cooperative learning before they could reasonably be expected to not only deliver it but contribute to a research project on change practices which would highlight their responses to pedagogical reform (Slavin, 1999 and Johnson and Johnson, 1999). Below I have outlined the course of these workshops. All teachers involved have been given pseudonyms and the conversations were recorded by a teacher who volunteered to scribe the dialogue as it emerged. I used a variety of resources as I presented the workshops (five workshops in total) but the emphasis was not the content of the workshops but the initial responses of the teachers and the issues that arose as they gained the necessary knowledge to partake in the research project

Workshops

Workshop One (26-08-11)

The purpose of workshop one (see Appendix Three for a schematic overview of all the workshops) was to introduce cooperative learning to the staff (Slavin 1991, Bennett, 2001 and 2003 and Johnson and Johnson, 2009) in an attempt to generate discussion on the new teaching pedagogies. This workshop was a combination of visual presentation, lecture style information dissemination and discussion. Its focus was on the principles of cooperative learning but also gave some practical examples of how it could be applied. The discussion that

followed gave a flavour in the first instance of how teachers felt about cooperative learning and pedagogical change in general.

Teachers responded strongly to the idea that cooperative learning changes the dynamic of the classroom, especially the roles of the teacher and student. The notion that ownership of teaching and learning was shared and not the sole responsibility of the teacher was significant. Teachers were interested in how goal setting, assessment for learning and facilitating learning was to be achieved in such a seemingly unstructured classroom environment. What is more they were concerned with giving over too much authority to the students in terms of learning because they felt the students would not be able to cope with the responsibility associated with the process. Sinead's question was typical of the kind of questions the teachers asked when she said: "We are a progressive school and we are always looking to do things differently but are we not going too far in giving students responsibility for their learning?" Or as Grace commented: "How can we get through the curriculum if we stop and spend time talking and exploring the subject matter? Do we not do this all the time anyway with learning outcomes and the integration of the literacy policy and the quarterly assessments?"

Many teachers felt that it would be impossible to implement such strategies in their classrooms. For example the practical teachers felt that their classrooms were too noisy and that making projects was very individual. When tested in examinations they would have to be able to produce a piece of work that nobody else could help them with and that engaging in group work in this respect was thus counter-productive.

Then there were the teachers who really felt that this was a step too far and that we should simply get back to basics and stop "tinkering" (Sally) with the curriculum and its delivery. Sally for example asked: "Look what happened to the primary curriculum - they messed around so much with it that the students coming into us in first year can hardly read or spell and have no idea about tables and other mathematical concepts." Or as Laura stated: "They are looking

to make us responsible for marking the Junior Certificate in an effort to save money and reduce the number of teachers”. Maggie felt that: “I hope you don’t mind me saying but I am tired of all these new initiatives - why change something that is working to the larger degree and for those that it doesn’t work for we have contingencies in place in the school to help them. Not everyone can be a brain surgeon - that’s the reality of life”.

The teachers felt that this type of discussion was important but that, “...messing with the curriculum was dangerous” (Sally). They saw the implementation of new technologies and up skilling in subject matter as important but to actually “...replace well developed and workable teaching practices with some kind of free for all student driven agenda” (Laura), was very difficult for some of them to come to terms with. Whereas some teachers were quite resistant to this change process a number were very happy to be given direction and ideas in terms of curriculum delivery especially in the context of mixed ability groups (which are ideal for successful cooperative learning). For example a number of teachers agreed with the statement made by Judy when she said: “The diverse range of skills and talents within my class make it impossible for me to get around to everybody and even when I use assessment to gain an understanding of how they are doing, its often predictable who is going to do well and who is not. If this technique allows me to do all this in one go, well I’m all for it.” John stated, “Fill the tool bag... I need all the help I can get!” While Grace said, “We are moving in the right direction; the way I present the curriculum content at the moment doesn’t allow me to get involved in the nitty-gritty learning of the kids. Yes I teach them but I would like to go with them a bit on their learning journey”. Tess felt, “It is important to learn these new techniques, the students are so different from even when I was at school (twelve years ago) and we really have to keep up with them if we want to survive in this business and make our school the best in the town”.

Overall, the first meeting generated a lot of interest from the teachers and they were keen to discuss the whole idea of alternative methodology. Most remained open minded to the principles espoused and when I asked them if they were

happy to proceed with the project they all agreed although some wanted further clarification. This clarification was more concerned with the mechanics of the research project and issues around confidentiality than the actual change in teaching practices. The second meeting was arranged for eleven days' time. This allowed the teachers an opportunity to digest the information and build momentum in terms of practical application.

Workshop Two (05-09-11)

This workshop focused on the student. It outlined in some detail the benefits of cooperative learning in the context of critical thinking skills and the development of self-directed learning (Johnson and Johnson, 2009) Classroom techniques (www.calstatela.edu, 2010) were also discussed at length although I realised that I would have to come back to this topic at a later date. This workshop explored the differences between ordinary group work and cooperative learning groups (Slavin, 1991) and highlighted the fact that although the two seemed to be similar, they were very different in their make-up and purpose. I reiterated the interdependency that cooperative learning generates and developed the idea that self-directed learning and critical thinking would necessarily come out of the process if all aspects of the methodology were adhered to (Johnson and Johnson, 1989).

Teacher's responses were mixed in terms of reaction to the practical application of the process, especially the notion of the importance of fostering interdependency. The culture within the Irish education system encourages isolated learning and peer-based competition and so the idea that one student may need to rely on another to achieve a certain grade can be problematic for some teachers. For example Anne commented: "I would not like my child to do all the work and others to gain from this work - where is the learning in that?" Jessica said: "It is all well and good sharing ideas but who are you going to share these ideas with when you are sitting on your own in an examination hall?" and Grace observed: "I know discussion is good but how do you get a child that is reluctant to talk in public to benefit from this type of interaction.

Don't you think it could do more damage than good to force them into a public forum?"

I outlined how the process could be tailored so that the student would have the necessary skills to undertake individualised testing and discussed the role of the student within the group in terms of their public persona and responsibilities (Wiegmann *et al.*1992). A number of the teachers had reservations about the integration of the students in the context of the group and so a third meeting was scheduled to tease out some of these issues.

Workshop Three (13-09-12)

This workshop focused on (i) the social integration (Morgan, 2000, Kagan, 1989 and Gillies, 2004) of students within the cooperative learning group and (ii) the role of the teacher as facilitator of learning (Bennett, 2003, Johnson and Johnson 2009, Slavin, 1991). One of the most difficult aspects of the cooperative learning process is the fact that students need to develop academic relationships with each other (Kagan, 2000). They have to learn to rely on each other within the context of their learning and encourage and support each other in terms of their roles within the group. This process takes time and most students feel uncomfortable in the initial stages (Bennett, 2001). The connections that take place at this time between group members are critical to success and the teacher is pivotal in orchestrating these relationships in a way that will best suit the tasks at hand (Bandiera and Bruno, 2006). Teachers were primarily concerned with how to blend the different personalities together, how to test these relationships, where to pitch the learning standards and how to assess the outcomes. For example Laura commented: "How do I know who has done the work and so how do I know what grade to give to each student? And Judy said: "Do I put quiet kids with louder ones or do I mix and match- is there a danger that some kids will be overwhelmed by their group partners and is this good for them?" Grace was concerned with the; "...longevity in grouping these students - I'm inclined to think that when a student is not pulling their weight the others will turn on him and this could create discipline issues in the class that would not exist if the information was being delivered in the traditional way - is

this fair?” These concerns were discussed at some length. I was anxious not to give carte blanche answers to these issues as this would stymie the development of solutions from the teachers themselves.

I then explored the notion of the role of the teacher as facilitator of learning. This aspect of cooperative learning was the most contentious especially in the introduction stage and the teachers displayed a lot of resistance to this idea. The consensus was that to give over learning to the students was to undermine the very fabric of teaching and what is more, it could have serious repercussions in terms of the success of the students in their examinations. Teachers on the whole were willing to deliver the curriculum using many of the techniques as mentioned above but to allow the students to self-direct their learning in a way that was not controlled by the teacher was difficult for them to accept. The teachers' views were encapsulated in sentiments like Beth's: "This kind of practice would make my role redundant - you might as well let a computer take over the class" or as Sinead commented: "I get the idea that the teacher's role has to be necessarily different but I am very uncomfortable about handing over what is, after all, my fundamental responsibility to teach, to the students". Laura felt that: "The students are just not mature enough to take on such responsibility - they will make a mess of it and we will have to pick up the pieces - grades will suffer and the reputation of the school could be undermined." Sally commented that: "If this all goes wrong are you going to be knocking on my door asking me why my students have all failed?"

This caused a lot of reaction and teachers were keen to know what would happen in such circumstances. These were key moments because I was not willing to let standards fall with the notion that it was okay for students to fail for the sake of experimentation, however progressive, but on the other hand I fully understood the teachers' reluctance, especially in terms of assessment grades, to implement a process that had potential failure as an outcome. This sentiment is acknowledged in literature and common among teachers. Rieck and Wadsworth,(2005) found for example that teachers felt cooperative learning had the potential to lower academic standards despite what Slavin (1995)

discovered when he researched the notion that students at risk benefitted from this type of teaching and learning approach. However I took cognisance of the teachers' concerns and agreed to the idea that this new methodology should be targeted at non-exam classes in the first instance where engagement in the process of unfolding the procedures could be achieved in a carefully controlled environment. The teachers' decided to focus on the younger years (particularly first years who had come from a group work environment in primary school), and developed strategies that would blend the curriculum content and outcomes with the new classroom methodologies.

Workshop Four (19-09-11)

This session revisited the strategies associated with the cooperative learning process and in particular looked at the five basic elements that make up the foundations for cooperative learning - positive interdependence, face-to-face interaction, individual accountability, interpersonal and small group skills and group processes – (Johnson and Johnson, 1999, Siegel, 2005 and Williams and Sheridan, 2010). We spent some time on each of these individual elements and the discussions that ensued were of a technical nature. No conflicting issues arose in regard to the application of the cooperative learning process as the focus was on developing strategies for implementation. Within each of the basic elements we explored how they could be applied in a practical classroom setting. The teachers took control of much of the session with their suggestions on how the subject matter could be intertwined with the cooperative learning strategies to deliver the curriculum. For example Laura felt that: "The students would have prep work done on an aspect of a poem before the class so that their contribution within the group structure can then be disseminated out. This would incorporate and promote individual accountability and face-to-face interaction." Maggie commented that: "The interpersonal and small group skills aspect would be ideal in terms of their cookery projects - I do this anyway but now I can name it and apply more fundamentally the collaborative and critical thinking aspects of it. I can see where the outcomes are going in terms of their learning and not just judge the end product. This is really good!" Anne liked the idea of the group processing element: "It is very important that if we are to

attempt these new strategies we fully understand what is happening within these groups – this was one of my main concerns. The group processing aspects allows this to happen and I am relieved that we have discussed this - I now understand how I can keep control of the whole thing.”

At this stage I could clearly see that the teachers involved in the research project had begun to take ownership of the process. Using their own pedagogical expertise they began to develop strategies that could be used in the classroom. A number of teachers decided to develop these strategies on an interdepartmental basis and roll them out in partnership. The session ended with a reaffirmation of the basic principles and a suggestion that we come together for one more session as a way of structuring our approach as a whole school initiative.

Workshop Five (23-09-11)

This was the last workshop and it reiterated all aspects of cooperative learning from the role of the teacher to the role of the student. It looked at the basic elements (Hancock, 2004 and Gillies and Boyle, 2006) and the necessity to incorporate instructional intelligence (Bennett, 2001) within the milieu of teaching strategies. This was the last opportunity for the teachers to come together in such a forum before they started the implementation process. This workshop blended lecture style presentation and discussion where strategies were examined and developed throughout the session. At the end of this workshop I asked the teachers to give a little anecdotal feedback as a way of summarising their feelings as they embarked on these new strategies. I asked them to jot down some of their thoughts as well as making verbal comments. Some of the sentiments were as follows:

“I am hesitant to tinker with the way I teach because I have a good relationship with the students and they tend to achieve good grades. However I know I can’t standstill forever and the changes in the junior cycle curriculum are bound to have a knock-on effect on the senior programme. I would prefer to be on the

ground floor when all these things are happening so I am going to give it a good go.” (Laura)

“I think this cooperative learning methodology is a great idea - it is ideal for my subject and gives me a real boost as a teacher to develop new methodologies. I love the idea of learning new strategies and I think this will really help in my classroom teaching practices.” (Judy)

“I’m still not sure about all this. I see how we need to give the students more freedom in their learning but are parents ready for this? I’m not sure - what I do know is that I’m sending them (the parents) to you for an explanation if they get difficult!” (Sinead)

“To me it’s another tool in my teaching toolkit - I think the ideas are great and I definitely see merit here. I will sprinkle these methodologies throughout my classes and see how they go. I will be interested to see what works and what doesn’t and I will also try to work out whether traditional methods are better or worse than these new ways in terms of student grading.” (John)

In summary, the workshops were crucial in many respects. The discussion and feedback from the teachers at this stage shaped the process as it developed. I have alluded to some of the issues above and have attempted to encapsulate the main sentiments as they cropped up. There was a large amount of data from the workshops that highlighted the progression from some negativity and uncertainty to overall positivity and confidence. This developed due to the teachers becoming more informed of the process and beginning to advance their own plans to apply the principles of cooperative learning in their own classrooms. I admit that there was a level of willingness engendered by the fact that participants were volunteers but nevertheless the professionalism in which the teachers approached the initiative was clearly encouraged by a growing understanding of the underlying principles. For example the overriding sentiments of uncertainty in the first workshop when teachers commented that they would not be able to get through the curriculum or were concerned with not

going too far in giving freedom to the students in terms of their learning, developed into a much more positive approach by the end of the fifth workshop when they remarked on the fact that cooperative learning was great, the ideas were great and the fact that they could not stand still forever. There was no doubt that uncertainty remained at the time of implementation. However there was also an acceptance of the need to try new things and develop change in an effort to enhance student academic outcomes.

I will now examine cooperative learning as a teaching and learning intervention and explore its basic concepts, principles and strategies.

Cooperative Learning - Introduction

Cooperative learning is an instructional methodology that promotes small student- based working groups as a means of disseminating, rationalising and applying academic learning. It relies on social collaboration and academic interdependence to fulfil learning tasks and avoids independent learning although it acknowledges the necessity to revise and apply on an individual basis (Bennett, 2001). Cooperative learning is commonplace and is seen as standard educational practice rather than innovation in many countries (Slavin, 1999). In order for an activity to be cooperative, five basic elements are essential and need to be present. These five elements are : (a) positive interdependence - where the students are inextricably intertwined and cannot succeed without each other, (b) individual accountability where the performance of each individual in the group is critical to collective success, (c) face to-face accountability in which students promote success by helping, supporting, encouraging and praising each other, (d) social skills where interpersonal and group skills are developed by all members in a collaborative and uniform manner and in which all members are equal and (e) group processing takes place in a self-reflective and evaluative way and where the group as a whole determines success and future strategies for success. One of the key elements that makes cooperative learning so effective and at the same time so different from traditional group work practices is its reliance on group interdependence.

Without this interdependence cooperative learning is simply group work and traditional group work structures are vulnerable to a number of issues. Although group work can be effective in that it may increase the quality of learning in the classroom by creating useful mechanisms for understanding or facilitating student interaction and achievement, it may also hinder student learning, create dissatisfaction and disharmony, isolate students and highlight disparities in ability. It does this through a number of different ways. According to Johnson and Johnson (1999), these traditional work groups can easily develop into pseudo learning groups where students are assigned to work together but have no interest in doing so because they will be evaluated independently. This creates mistrust and erodes the potential for shared learning. In this scenario the result of the sum of the whole is less than the potential of the individual and thus independent learning would be far more effective. When groups are structured in such a way that the assignments are assessed independently at the end of the exercise, this also negates collaboration and encourages students to seek each other's information but discourages shared learning experiences. This may also cause students to deliberately mislead or confuse each other as a way of gaining an advantage (Vedder and Veendrick, 2003) and also some students may freeload on the efforts of their group mates. In this scenario the result is that the sum of the whole is somewhat more than the individual but that the harder working and conscientious students would perform higher if they worked on their own.

In contrast cooperative learning groups have to follow rigid structures that take into account the presence of the individual in the learning group but with an ultimate aim of accomplishing shared goals. All material is discussed within the group, each member has a duty to assist and encourage their partners, sharing information is crucial and each group member is individually accountable in terms of their contribution to the group which is regularly checked. This means that the group becomes more than the sum of its parts and all students perform higher academically than if they worked individually. This type of group has the potential to develop into a high performance cooperative learning group where all members of the group meet all the criteria as laid down in cooperative

learning ideology and although few groups ever achieve this level it is crucial that they focus on its potential in terms of their learning activities.

The effectiveness of cooperative learning has been well researched. It has been shown that group cooperative learning leads to academic and cognitive benefits. It promotes student learning and achievement (Cockrell *et al.* 2000, Hiltz, 1998, Johnson *et al.* 2000, Slavin, 1992) increases the development of critical thinking skills (Brandon and Hollingshead, 1999, Cockrell *et al.* 2000) and promotes greater transfer of learning (Brandon and Hollingshead, 1999). Cooperative learning also aids in the development of social skills such as communication, presentation, problem solving, critical thinking, leadership, delegation and organisation (Cheng and Warren, 2000).

Although there are established structures for the implementation of cooperative learning, it is a versatile procedure that can be used in a variety of ways. This allows for a number of different approaches which impact on process and outcome. For example if the information being presented has a specific content then a formal approach to cooperative learning is necessitated. However, if the objective is to ensure active cognitive processing then a more informal approach will take place.

Formal Cooperative Learning

This consists of students working together over a specific period of time to achieve a specific aim or series of goals. It is based on shared learning where tasks and assignments are completed by the group in a situation where each member takes responsibility for an action and then relates it back to the rest of the group. In this way the group covers all aspects of the task comprehensively in a shared learning environment. The teacher also has a specific role in this scenario in that he focuses the group on explicit objectives, chooses the size of the group, its composition and the role of each student in the group. The teacher defines the assignment, teaches the required concepts and strategies and determines the criteria for success. His role then turns to monitoring the

group dynamic, intervening within the group to create focus, observe the interactions ensuring that interdependence is in evidence and that each member is contributing satisfactorily and that the outcomes are being achieved. The last function of the teacher is to assess the work of the members in the context of the overall performance of the group. This would take cognisance of the actual work prepared, the level of understanding achieved by individuals and the group as a collective, the level of interaction between members and the degree of learning achieved as a unit. Finally the intervention of the group in the assessment process would take place with all members being responsible for discussing and developing strategies that would enable them to work more effectively together in the future.

Informal Cooperative Learning

This situation occurs when heterogeneous groups are formed for short periods of time (from a few minutes to one class period normally). This technique is used to focus student attention on particular material to be learned, create an atmosphere conducive to learning where short term objectives are clarified and thus provide closure on specific outcomes. Informal cooperative learning can blend direct instructional techniques with shared learning experiences and its efficacy is derived from the interaction of students at points in the lesson when discussion takes place and meaning is pooled. Instability is inherent in these groups and that is why they are a short term measure. However, the way the students interact and assist each other in understanding the material presented allows for cooperative learning to take place and students who are familiar with the concept and practice of cooperative learning have little difficulty in collaborating at this level.

Whether a teacher uses formal or informal cooperative learning, its efficacy can only be realised through a learned process. Students are often reluctant in the initial stages to give much credibility to this methodology because they misunderstand the function of the group. Research has shown that students need to be taught to function socially and academically within their groups

before cooperative learning can take place properly (Sapon-Shevin, 1994, Hancock 2004 and Gillies and Boyle, 2006). The need to successfully incorporate these skills into the cooperative learning process means that this type of methodology is incapable of producing rapid results and that even informal cooperative learning necessitates a structured foundation before it can become effective. Sapon-Shevin (1994) in her work on cooperative learning in American middle-schools quotes a child who sums up the dangers of not establishing a process of understanding in the first instance. When she asked this fourteen year old female student what she (as the author) should write in terms of cooperative learning, she received this reply:

“Tell them it’s too late to start. Tell them that if they haven’t done cooperative learning before, it just doesn’t change anything. They put us in these ‘politically correct’ groups - you know, Blacks and Whites, girls and boys - and all the tensions are there. One kid will make a racist remark and that will split up the group. Or one kid will start ‘dissing’ the other and everyone gets mad at everyone else. And then one kid does all the work and nobody else cares, or one kid gets the answers and won’t show it to anyone else. And some kids just don’t work with others and it just doesn’t work.” (P.184)

This is a common sentiment and reflects the problems associated with group work. The inherent danger is that unless the fundamental elements of cooperative learning ideology are laid down in the first instance and the students are allowed to develop the capacity to interact on this level, it will never be successful. Gillies (2004) found that students rarely engaged in high level discourse, generally did not elaborate on information, did not ask thought provoking questions or use relevant prior knowledge and experiences in the formulation of outcomes. She also found that teachers needed to have a comprehensive understanding of how to extract student higher level complex thinking for discourse to be suitably promoted. Teachers needed to take cognisance of the fact that students only engage in high quality discourse when they had to provide reasons for conclusions and that the role of the teacher in engaging the student in terms of asking and answering questions is critical to

successful application of the learned material. In essence the teacher's role is to provide detailed explanations to help students apply the information and monitor their understanding of the information. The student's role is to ask precise questions, persist in seeking assistance in the pursuit of information and apply the explanations where appropriate (Webb and Mastergeorge, 2003). This criterion is essential if cooperative learning is to be effective. However, this process is difficult and in an environment that does not traditionally allow for substantial deviation from the more didactic approach by the teacher there is an added challenge.

Cooperative Learning and the Socialisation Process

Discourse is central to the delivery of any cooperative learning strategy. However the student is more familiar with interacting with the teacher than his fellow student in the context of learning and so a process of socialisation is necessary in order to allow familiarity of the procedures associated with successful cooperative learning. Socialising students in the context of cooperative learning is critical to its success (Peterson and Miller, 2004). It is vital that a structured process is undertaken to allow the students become familiar with how to behave in the groups, speak to each other, interact in an academic and analytical manner and work together towards common goals. Vedder and Veendrick (2003) researched the role of task and reward structures in the context of cooperative learning and concluded that simple task definitions and clarity in terms of expected outcomes was all that was necessary to achieve motivation in terms of student attitudes to this process. These findings are critical in the context of successful implementation because the clearer the definition of what is required and the stronger the sense of function of the individual members of the group, the more chance that a successful shared learning outcome will be achieved. So by creating task structures that are manageable in the first instance, students begin to learn how to interact appropriately with the other group members. This should lead to more complex and sophisticated material analysis that would enhance both the learning and teaching experience of all stakeholders in the education process. Basic tasks

are thus introduced initially (for example think-pair-share, jigsaw or round robin), so that the students become familiar with their interactive role within the group structure. The teacher ensures equilibrium of input throughout the groups and focuses the members in the context of keeping on task. Once cooperative learning practices have become integrated into the student's social psyche, it has been found that peer orientation and motivational practices between individual students and cooperative learning groups begin to take place (Hancock, 2004). Motivation is essential in this regard because it allows for much more sophisticated self-directed learning practices. The motivation to learn has been described as a student's tendency to find academic activities meaningful and worthwhile when deriving the intended benefits of those activities (Brophy, 1988). This sustains learning in the context of cooperative learning because essentially the reward structures are based on group activity and not individual achievement. Therefore, working for the team is important but human nature also dictates that the individual has to realise some tangible benefits from his or her efforts. If the cooperative learning student understands that by practicing these methodologies, he will gain a deeper understanding of the issues which will in turn prepare him better for examinations, then the consequences will be positive in terms of academic input and output (Strom and Strom, 2011).

The relationship between cooperative learning partners in the context of teaching and learning is very important and in this respect the teacher has to go through a socialisation process as well as the student (Johnson and Johnson, 1999). The traditional role of the teacher is usurped by cooperative learning methodology because he becomes less of a director of teaching and more of a facilitator of learning. The emphasis therefore shifts from teaching to learning and the student takes control of this in a managed and systematic way (Siegel, 2005). Consequently the role of the teacher becomes secondary in a sense to the learning and his function develops into a managing role. This role sees him form heterogeneous groups of four (or three), create specific agendas with concrete tasks that provide a routine for groups to follow when they meet, ensure that the five basic elements of effective cooperative groups are

implemented, and create and support an environment in which students periodically process the effectiveness of their groups (Slavin, 1999). If through the cooperative learning process base groups are formed (these are groups that stay together for a prolonged period of time, say a semester or an academic year), the teacher will have to schedule time for them to meet on a regular basis (Johnson and Johnson, 2009).

Cooperative Learning and Assessment

Another feature of cooperative learning that separates it from traditional group work is the notion of assessment. Strom and Strom (2011) argue in their article on skills assessment that the expertise required as adults in the working world needs to be developed at school level and that cooperative learning, if applied correctly, facilitates this need. The ability to share knowledge and learning effectively, self-evaluation and a healthy reliance on the skills of others to achieve set goals are all examples of how cooperative learning can be a valuable lifelong skill. In cooperative learning, competitive individual evaluation and assessment is seen as counterproductive in terms of its ultimate aim to engender an ability to share information in a way that allows for the development of ideas on a shared learning basis. This procedure, according to cooperative learning ideology, creates an efficacy in a given curriculum that would not be realised in the context of direct instruction and individual study practices. If this is the case, how then can students, engaged in cooperative learning, be assessed?

The education system in Ireland promotes competitiveness. Students compete for college places by achieving higher grades than their peers at the end of a designated period of time through an externally marked national examination. However, nowhere in this process is the ability to communicate with peers, work together in groups or contribute to a shared learning experience assessed, which causes reluctance on behalf of teachers and students to engage in the cooperative learning process. However, cooperative learning, it is argued is competitive, has individualistic features and is highly appropriate in the

dissemination of curriculum based material (Bennett, 2001). The assessment procedure in the context of cooperative learning takes cognisance of the ability of the individual to understand the material, apply it and share it but it also allows for the individual to take responsibility for their learning through individual examination after the cooperative learning practices have been experienced. This means that if a group is assigned a project and they have to develop a process and an outcome, then this is assessed as a group effort; the learning experience can then be translated into tangible examination on an individual basis after the fact and so the student gains the best of both worlds – the shared learning experience and the individual realisation of this learning through examination (Johnson and Johnson 1999).

Cooperative Learning and Research

Siegel (2005) makes an interesting analogy when she compares research-based cooperative learning methodology design with the practical implementation approach as used by teachers. The researcher, according to Siegel, when deciding on the parameters in which cooperative learning should be studied, introduces the instructional methods for fostering cooperative learning, determines the frequency and duration of cooperative learning lessons, regulates what activities and materials will be used and decides the composition of the student groups. Teachers on the other hand are more likely to consider curriculum content, availability of time and materials and specific student factors before making a decision on how to implement this ideology. Where the disparity between the researcher and the implementer appears, is in the application of the programme and its responses to change. Siegel (2005) observed that for the researcher the focus was on process and outcome, for the teacher it was about being flexible and innovative and attempting to make things work.

Cooperative Learning has been advocated as a vehicle for school reform, however it is argued (Grossen, 1996, Antil *et al.* 1998) that research needs to be undertaken in real life situations in order to analyse the efficacy of these

practices when applied to volatile and complex classroom situations. Siegel (2005) found that teachers' adapted practices frequently in the context of their own prior learning and that the use of instructional innovation varied according to the influencing factors within a teacher's professional life. In essence this showed that a single concept of cooperative learning was not possible because of the context of teachers in terms of environment and experience.

Further research has examined issues concerning equality of participants within the cooperative learning group. Cohen *et al.* (1997) looked at how students with lower levels of reading ability or lacking proficiency in the language of instruction could successfully contribute to group objectives. They also considered the role of the teacher in ensuring that all group members were active and influential participants in the learning environment. They concluded that in order for the equitable classroom to function, deliberate interventions were needed to produce equal status relationships within the groups. Failing this, members of a cooperative learning group may not have equal access to learning which would result in the fundamental principles of cooperative learning being disregarded.

The sentiments expressed by Cohen *et al.* (1997) are never more evident than when dealing with students who have special educational needs or emotional and behavioural difficulties. Zental *et al.* (2011) specifically focused on students who suffered from Attention Deficit Hyperactivity Disorder (ADHD). These students were 3-7 times more likely to be suspended or expelled from school than their peers (Luath *et al.* 2006) as well as facing considerable social difficulties in and out of school. Most students with these issues were unpopular in school and attained low levels of academic achievement. They had limited life chances in terms of relationships and employment after leaving school and in general had negative longitudinal outcomes (Mikami and Hinshaw, 2006). Zental *et al.* (2011) on the other hand, saw the merit of cooperative groupings in that the learned behaviours within the groups could be translated into social conduct in the normal school environment. For students with these issues the normalisation of group participation in the learning environment where their

contribution was not only valid but valued by their peers allowed for growth of understanding that may not have been possible in the competitive and individualistic world of direct instruction.

Students with special educational needs also benefitted from cooperative learning practices as highlighted by Jenkins *et al.* (2003) who found that students with special needs derived improved self-esteem from these practices as well as feeling comfortable in a safe learning environment where they could interact appropriately with their peers. Jenkins *et al.* also found that the learning resulting from these actions made for greater success in classroom tasks as well as giving students who normally had little or no voice, a greater say in their learning.

In conclusion, it is clear that cooperative learning has been well researched over the years and that it is highly effective in improving student academic standards. Slavin's (1996) dated but useful theoretical perspectives put into context the efficacy of cooperative learning methodology. He identifies four major issues that might explain the achievement effects of cooperative learning. These were: (i) motivational perspectives which focused on the reward and goal structures under which students operated. The fact that students had to work interdependently to achieve success as a group encouraged self-motivation; (ii) social cohesion perspectives which allowed for the fact that (similar to the motivational perspective) achievement was strongly mediated by the cohesiveness of the group. The students cared about each other and were willing to work together to achieve their aims; (iii) cognitive perspectives which could run counter to the two first two perspectives in that the act of interaction in itself could increase student achievement for reasons that had to do with mental processing of information rather than motivation and (iv) developmental perspectives which took Vygotsky's (1978) idea of zonal proximity where students of a similar age operated within their zones of development and therefore learned from each other.

Research is critical to understanding how the process works. Until we have a set of theoretical mechanisms that can inform the process we leave ourselves vulnerable to inconsistencies which could affect the value of the cooperative learning programme. In an environment where education is based on competition it is crucial that this value is widely acknowledged or else cooperative learning is simply reduced to group work where at best it may check learning and give students an opportunity to loosely discuss certain academic issues and at worst not be used at all because it could be seen as a waste of valuable time and resources.

Critical Perspective and Cooperative Learning

One of the main criticisms of cooperative learning is poor accountability that comes with small group work. Vague objectives and lack of teacher input (which, critics say, allow teachers to avoid responsibility for the learning - see Kohn, 1992) makes for uncertainty in terms of covering the content of the curriculum and gives students far too much responsibility for their learning which could result in failure at national examination level. The overuse of cooperative learning is also seen as problematic. Randall (1999) suggested that by allowing members of a cooperative learning group to be responsible for each other's learning, this could place too great a burden on some students, especially in mixed ability groups where the stronger students, she contends are left to teach the weaker ones and therefore do most of the work. The time it takes to extract the contributions of all members is also seen as problematic because this means that time limitations promote only the most basic of thinking strategies and so only lower level thinking is achieved which negates the inclusion of critical and higher level thought.

The lack of teacher preparation is problematic in that it can damage discovery in the context of cooperative learning. Teachers need to learn to question properly (complex instruction is an example of this) and identify teaching goals which students can relate to. For teachers' to let go of the learning process is probably

the most difficult aspect of cooperative learning and the fact that teachers' often do it with serious provisos can weaken the process.

Another possible problem with cooperative learning involves racial and gender inequities. Research (Cohen, 1986, Sadker *et al.* 1991, Linn and Burbules, 1993) shows that in science, and perhaps in other areas of the curriculum, group learning may be less equitable for girls than direct instruction. Traditional 'male' subjects like maths has the potential to reinforce stereotypes and bias within the milieu of the cooperative learning environment where female contribution is discredited if not carefully monitored. As Sadker (1991) points out, the few studies that have been conducted in relation to analysing cross-gender performance in cooperative learning scenarios suggest that, by itself, the implementation of cooperative learning groups does not necessarily lead to more equitable and effective learning environments for females (or indeed minority groups). Creating heterogeneous groups can circumvent these issues but the richness of diversity is lost in this situation. A balance therefore needs to be maintained in order to achieve the most potential from a shared learning environment.

To summarise, cooperative learning is a sophisticated and highly structured group work methodology. It takes cognisance of the knowledge and experiences of its members and allows for the growth of ideas in a scenario that fosters equality and encourages social interaction as a means of achieving specific goals. Meta-analyses have found that it promotes social connections, encourages constructive behavioural norms and motivates optimism that most problems can be solved when collective action is applied in teams (Roseth *et al.* 2008). Indeed Johnson and Johnson (1989) mention that over 180 studies have been conducted since the 1940's on the relative impact of cooperative learning in contrast to competitive and individualistic experiences on interpersonal attraction. These studies have concluded that cooperative learning is more likely to promote greater interpersonal attraction than either of the other two elements with the result that the more caring relationship between students as perpetuated by the cooperative experience creates better team work practices,

a higher commitment to shared learning and a more erudite understanding of the knowledge being examined. Johnson and Johnson (1999) conclude that working cooperatively with peers results in greater psychological health, higher self-esteem and greater social competence. However without the appropriate structures and inputs from teachers, cooperative learning falls into the category of group work, which, as we have seen, has some merit but does not fulfil the potential that a carefully constructed cooperative practice would. When cooperative learning fulfils this potential it becomes a powerful tool for both teachers and learners; it develops critical thinking skills, enables team work to take place which is not only relevant to the study of subject material but also essential in the context of future employment skills (Williams and Sheridan, 2010) and creates a scenario that fundamentally shifts the thinking of teachers in the context of their role as the main source of learning in a classroom situation. This is the essence of good cooperative learning practice. The notion of challenging traditional values in a way that allows for structured and focused study can only benefit students and if these notions are realised then students have a real opportunity to gain insights into their academic material in an environment that allows for shared learning and proper communication. This type of pedagogical process transcends the learning in the classroom and equips students with the skills to deal with all manner of educational and employment challenges long after they have left the secondary school system.

Conclusion

Stagnation, a lack of focus and uncertainty were some of the difficulties being faced by Fairhill Community School when I was appointed principal in 2004. I was met by a demotivated and demoralised staff and a disengaged student body. The school was failing and in danger of closure. Creating a situation where progressive educational change could take place was difficult yet I sensed from the beginning that it was achievable. I was in no doubt that things had to change but realised that for change to be substantive, effective and sustainable it would have to be introduced slowly and with the full consensus of all the change participants. I spent the first number of years re-establishing and

developing systems that would support the change process and it was not until I was five years in the position that I felt confident enough to introduce such a radical programme as cooperative learning. My school-based experiences in the years preceding the start of this research study convinced me that without radical change, the school would fail, that without educational reform being integrated into all facets of school planning, the school would never realise its full potential and it would, in essence, let down its students and the community it served.

Introducing cooperative learning as the vehicle for testing responses to educational change allowed the teachers to take control of the change initiative and develop it in accordance with their pedagogical needs. It was an intervention that was practical in its application and had short term achievable goals that motivated both teacher and student. It was essentially an ideal change initiative coming off a long period where little progressive change practice had occurred. It was critical that the study participants were familiar with the fundamental elements of the change programme and that is why it was necessary to have a series of workshops that focused on cooperative learning prior to its introduction.

The point of this research project is to learn from the experiences of the teachers involved in the change initiative. The next chapter details these experiences and explains them. The research was supported by the fact that in the present day situation in Fairhill Community School the study participants were enthusiastic about engaging in a change programme and committed to the investigative process which they anticipated would benefit them in their teaching methodologies. The discourse that took place during the focus group interviews reflected this optimism and gave me as researcher a significant amount of information from which to make my determinations.

Chapter Four - The Findings

Introduction

This chapter examines the responses of the teachers to the cooperative learning change programme. It will be divided into three sections following a chronological pattern. The first section is concerned with the introduction stage and will describe how teachers came to terms with the change programme and explore the difficulties and challenges associated with this period. The second section will reflect on how teachers adjusted their methodologies at the implementation phase of the change programme. It will describe their responses to a number of change issues as their knowledge of the programme deepened and they became more expert whilst implementing it. The final section will describe the concerns teachers had in terms of educational change generally and more specifically the challenges of their role within their own school – this being in the context of their experiences as change participants. So this is a descriptive account of the stages of introduction through to implementation and is shaped by teachers' reactions to the initiative. It will illustrate and examine how teachers coped with and responded to their changing pedagogical circumstances.

The central question of this thesis relates to the responses of the teachers to an educational change programme, specifically one related to pedagogical practices in the classroom. It endeavours to examine this phenomenon and then explain it. It is not looking for right or wrong answers. It is concerned with linking ideas, beliefs and opinions in a way that may inform future educational change processes. By understanding and developing the role of the teacher within a change milieu (Fullan, 2013) there is an opportunity to advance sustainable and successful change within a prescribed formula that may be applied to different and similar change situations. In essence the descriptions of the teachers' experiences within this chapter confirm much of what Fullan says about the teacher's role in the change process; that is the notion that consultation is the key to any successful change programme and that if

teachers are included in the change process from its inception, then the chances of successful implementation are greatly increased.

The introduction stage was concerned with informing teachers of the specifics of the cooperative learning change programme. I have detailed this in Chapter 3 but it is important to note some of the issues at this stage as a basis for understanding what is to follow. The entire teaching staff was introduced to cooperative learning as a curriculum intervention strategy in late August 2011. I then asked for volunteers to pursue this methodology and allow me to investigate their reactions to it. As has been already detailed, over 70% of the staff volunteered and we spent the next six weeks working on the principles of cooperative learning and the practical application of these ideas. During this time I experienced little resistance to the ideas of cooperative learning. A possible reason for is that they were contextualised in a very practical way and presented as classroom based activities. With the assistance of two teachers who had piloted the programme we attempted to make these methodologies classroom friendly and useful. Cooperative theory and practice was explored in these workshops but this was generally in the context of distinguishing between traditional group work practices and cooperative learning methodologies. However, teachers did express some negative concerns about the change programme in the context of external influences and very early on it was apparent that these external factors would play a major part in how they viewed the change initiative. These frustrations manifested themselves in comments like:

“How can we get through the curriculum if we stop and spend time talking and exploring the subject matter? Do we not do this all the time anyway with learning outcomes and the integration of the literacy policy and the quarterly assessments?”(Grace).

These sentiments seemed to reflect how these teachers felt about their perceived roles in the change process as opposed to what they really felt about outcomes because in a later setting teachers were very positive in terms of their

change experiences. These comments also reflected the majority of teachers' opinions in terms of the syllabus and the perceived restrictions that it placed on their own teaching methodologies. This pattern of concern in relation to the limitations of the syllabus persisted throughout much of the investigation period and it was only towards the end that I began to detect a kind of liberation, engendered by cooperative learning, from the restraints of previous interpretations of the curriculum and its delivery.

The period between the ending of the workshops and the beginning of the focus groups lasted four weeks and during this time the teachers began the implementation process. The first focus group meeting took place in November 2011. Regular meetings constituted the beginning of the introduction stage and lasted for approximately two months ending in late December 2011. The second phase followed in which the teachers had become more familiar with the programme and were developing new strategies and taking more risks with their classroom practices. This phase lasted until March 2012. The third phase ran until the end of May 2012 and during this phase within the focus groups the teachers explored issues of educational change in a wider context. At the end of May the recording of teacher discussions and opinions formally concluded.

Phase One

Every focus group session began with a broad question which was intended to get the teachers discussing issues relating to the change programme and consequently change itself. In the first focus group session the question was related to cooperative learning and its drawbacks and advantages. This question was designed to give all participants an opportunity to contribute to the discussion forum and to find their voice within the group. The overriding sentiment at this phase was uncertainty both in terms of the practical application of the change programme and the depth of theoretical knowledge required to fully understand the nuances of the process. Jessica was very representative of the teachers' views in this early stage when she commented:

“...even though I thought it would be straight forward putting it into practice I did not really understand it as a learning strategy. It was not around when I did my teaching practice – I suppose I used a kind of dictatorship style more so than anything else in the classroom and it is only when you sit the other side of the teacher’s desk that you see the value in this type of group work. I now see that it benefits the weaker students and that is a good thing”

Most teachers did recognise that the classroom dynamic improved with these new practices and although they were not sure why, they did respond positively to this change. As Maggie states:

“You put your classes into various groups and they establish a kind of good dynamic as they work together over a period of time. I am only learning this style myself but I see that the children are beginning to basically teach themselves rather than me teaching them.”

The general tone of this first meeting reflected a cautious optimism where teachers could see the benefits of the new methodology. However even in these early stages teachers were nervous about the amount of time that would be needed to implement these new strategies fully and across the school. They were wary of implementing the programme at senior level because of the time factor and were keen to focus on junior groups. Their comments also reflected the fact that change was seen more as an add-on rather than integration into current practice. Judy commented:

“It does take extra time but if the Junior Cert. course is reduced and there’s possibly more time for Science, say six classes per week instead of five, then it could be a lot easier.”

The teachers were also cognisant of the different approaches required by cooperative learning. They were, for example, concerned with the level of noise but realised that this was part and parcel of the cooperative learning class lesson. Judy mentions this problem but like many of her colleagues involved in

the project, accepted it as part of the change process and was able to incorporate it into her lesson planning:

“I thought it is noisy and as a teacher, you have to get used to that and you don't want it to get out of hand. But at the same time, it does involve more noise than the teacher standing up at the top teaching. So yeah, as a teacher, you have to get used to that. And as pupils, they have to get used to that too because it's not just kind of a free for all either. So it has to be constructive noise”

Many of the teachers initially associated noise and self-directed learning with an unstructured educational programme that could have serious consequences in terms of terminal examinations. Traditional practices were viewed as being of high value and the new practices viewed as reinforcing and enabling these traditional practices to function more efficiently. John summed this up when he stated:

“You know, I suppose I define (cooperative learning) as handing the learning over to the kids and the teacher then is the, I suppose, facilitator. That's my understanding of it. And I suppose looking at the disadvantages.... it is noisy and it doesn't allow much time for the teaching. It takes a lot of your own time for the teaching.”

He went on to express a common sentiment among teachers when he spoke about cooperative learning as a tool for checking what has been learned through traditional means.

“I only feel comfortable doing it (cooperative learning) after I've taught generally the content and they have to then take what they've learned and produce some piece of work at the end of that. I'll just give you an example: we were doing the structure of the earth - volcanoes, earthquakes, fold mountains, tsunamis and that sort of thing. So once I taught that, I then asked them to produce a poster, a piece of work or a PowerPoint and they had to bring in new information that

they would have had to have gone away and researched. Now, that was the angle I was coming from and that was the angle that I felt comfortable doing cooperative learning with. I didn't feel comfortable handing over the learning to the students...”

So in this introduction phase of the process the teachers did not see cooperative learning as a substitute for traditional teaching methodology but more as an aid to test learning. Deviating from traditional norms was thus difficult and teachers were very cautious to embrace new techniques that had an unproven quality to them. This related to the fears the teachers expressed from the beginning in terms of their commitment to the curriculum and their perceived ideas on its restrictive nature which they felt forced them to teach repetitiously and through textbook exploration. Without the basic facts as laid out in traditional textbook structures, teachers felt:

“...it's trickier to, you know, teach them something when you're trying to get them in a cooperative learning situation, to tell you the information. And if they don't have the information in the first place (starting a topic from scratch) they can't seem to find it.”(Maggie).

So ironically teachers had not embraced the fundamental tenet of cooperative learning of promoting and enabling critical thinking and self-directed learning and yet were still eager to experiment with change processes because the students had responded so well to these new changes. As John stated when challenged by another teacher on the issue of student responses to cooperative learning (which inadvertently reflected Fullan's (2011) notion of ready, fire aim in the process):

“...when my group went and researched the different topics they came back with a depth of knowledge that surprised me a little...”

Rationalising change and putting it into an appropriate environment was very much part of the initial responses that teachers had to the programme. As Jessica commented:

“I just found, yeah, I did a little bit of it with the older kids - It had come too late in the day for them - the cooperative learning thing. They were nearly afraid of it. They were so afraid they thought that they were giving up a class for this. I was trying something new and it had nothing to do with them, they just thought they were facilitating me. And yet if I was to go back to what you said, when they were working in the group, they were actually, they were, you know, more knowledge from learning from each other actually than they were from me. You know, but certainly yeah, I could see the benefits of it a bit more. So down at the beginning groups would be the best time to do this”.

Teachers were concerned with parental perceptions. They realised that a change programme such as this affected all within the school community and they were apprehensive about their role as advocates in the eyes of the parents. They were also concerned about the challenge of changing traditional classroom practices As Maggie pointed out:

“I think too you need, from a paperwork point of view, like you can have all this discussion going on with the group, but when you go home or send them home to do their homework, you know, where are they coming back to for further information from the stuff they've forgotten? Are they going back to their book? Have you looked at the book? Where does the book come into it? Or do you need a book at all? And what are their parents thinking – they have paid for a book rental scheme but the students are going home saying they have been in discussion groups all day long and are not using the textbook - is this going to become a bigger problem and are we meeting the parents expectations?”

Continuing this theme, teachers were cognisant of the fact that this new approach had to be sold to the students otherwise they would see no value in it and resist it. This was an important realisation because they had never

questioned student responses to traditional methodologies, but felt it was appropriate to do it in these new change circumstances. As Grace pointed out:

“I had never asked students how they wanted the lesson to be delivered and all of a sudden I was asking them. They were not sure how they wanted it delivered and nor was I but at least in my mind I was beginning to test boundaries and although a little uncomfortable with this idea, I was glad to give it a go.”

This idea supported the notion that teachers could always escape back to their ‘old’ world and this safety net became an important factor for them in terms of their willingness to participate in the change process. As time progressed in this introduction phase, teachers became more proficient in the delivery of the new practices but yet were still quite critical of the supports and practicalities of implementation. For example space was a big problem as was the amount of time necessary to deliver the programme. However I began to notice subtle changes in the remarks of the teachers and the focus seemed to turn away from the actual implementation of the programme at classroom level to more pragmatic issues. This, I felt, indicated that proficiency levels were increasing and so demand for appropriate resources and environments became commensurate with this new expertise. As Tess stated:

“I found that my room was too big and that the students were too spread out from each other so it is hard-you know- to give instructions because the space is so vast”.

Or Jane felt:

“I think the classroom can be problematic, depending on what room I am in and what activity I am doing- sometimes I do not have enough room”.

However these issues were soon superseded by more functional issues. For example Jane:

“...found it difficult to start because I didn’t know much about the first years- who worked well and who didn’t work well together - I didn’t realise when putting people together how difficult it was to blend this...” Or Tess who responded with:

“I mixed my third year groups up and there are two weaker ones in there and I tried to put them with stronger ones - even with encouragement and me leaning down beside them giving them hints trying to make them part of the group - they still sat back letting others do the work because they were better - or think that they are better”

At this stage the focus group had evolved to become more a discussion forum where teachers aired their issues and started to find solutions amongst themselves. In dissecting the issues of socialisation within the cooperative learning groups for example, the teachers had begun to see where the different ability levels could be placed within the groups and develop strategies that allowed students to discuss academic issues appropriately among each other. This indicated a growing awareness of student needs and reflected a parallel development between students and teachers in adjusting and adapting to the changed pedagogical approach. Tess echoed this when she stated:

“...how do you maximise their (students) comfort - because the whole point is that they have to feel comfortable and that you are not moving them out of their comfort zone - but how do you do that without isolating them. Making them work and encouraging them to work I suppose, but taking away the scariness of it as well.”

Sinead felt that students were suspicious of the process especially the high achieving ones and she:

“...had to do a lot of selling of this new way of learning and so started with very small amounts of it and slowly built up to a situation where I could get all the students involved for a sustainable period of time. “

She continued that she would apply a demerit to the group if any member did not contribute. In this way she felt peer pressure would be applied to the disaffected members of the group which in turn would encourage them to contribute positively in the future (which she claims it did). This particular teacher put a lot of store on body language especially when all groups had to report back at the end of a session. She would move around the groups picking up students who were not listening or who she felt were disengaging from the process. Her actions typified the changing practices of the teachers in terms of classroom management strategies – especially in terms of how students were managed in the classroom. There was a consensus among teachers that the student who hides within the group and does not contribute to the work in hand was by far the most problematic issue. Discussion on this issue ensued and teachers developed a series of strategies that could tackle problems. As Sinead pointed out:

“Exactly what Tess was saying, he (a particular student) can hide in the group unless you get a technique for getting him responsible for losing points. So we had the points put up on the board as we progressed through the lesson.”

Another general sentiment amongst the teachers was that the weaker students were at most disadvantage because as Jessica pointed out:

“They (the weaker students) find it so difficult in the group scenario because they cannot compete with the more academic students. They are not inclined to put their heads in the noose, as it were, in case they sound stupid - whereas the higher achieving kids don't have that negative notion of themselves”.

Jane agreed with this sentiment when she said:

“...you know how it is recommended (in cooperative learning literature) that you encourage the weaker ones so they feel part of the group - ah you know how you can drop them hints so they feel adequate and don't have a blank in front of them (the group) - so I am doing that and therefore know that they are working, I know they are trying - but it is their ability - I don't want them to feel worse than they already do by looking at everyone else in the group.”

During this phase teachers were very reluctant to use cooperative learning methodologies with exam students. This was a clear indication that although they were attempting to proactively engage with the change process, their beliefs in terms of its validity were still tempered by a more traditional (and tried and tested) version of curriculum delivery. They basically carried out a cost benefit analysis of the programme and determined that its efficacy in the context of the examination classes was undermined by time factors. As a result cooperative learning was rarely used in these classes. They framed this reluctance in the context of student resistance to the change programme. Common sentiments like: “...it is holding them back” or “...the students don't particularly like it – they find it difficult to change...” reflected this reluctance. Tess for example commented:

“...in particular I think Leaving Cert. students feel we are holding them back- I just don't use it with them, they don't like change and seem to resist my attempts to develop group work, so in the end I go back to my traditional methods and they seem much happier”.

However a certain symbiotic approach with these classes did emerge where the traditional teaching methodologies, which mostly allowed students to become familiar with the subject matter, was merged with cooperative learning for investigating the topics further and extrapolating added information. So although teachers did not fully trust cooperative learning as a stand-alone teaching methodology, they did seem to recognise its value. They also recognised the value of change and that is why teachers such as Sinead commented that:

“...in time they would buy into the process but in the meantime expect resistance and a lack of commitment from the students in this respect. They hate sharing especially the bright students.”

However this phase still saw negativity in the application of the change programme. Teachers were quick to comment on issues that stood in the way of the process. These issues include the constraints of the timetable and the curriculum in general, Jane for example felt:

“...when you are in a single class it can be difficult - it is after all new and the importance of sharing and things like that need to be in larger activities and I think you need a double class at least. I do like some of the games that it (cooperative learning) uses but it takes time for the students to get it and by then we have to finish up and I feel that the class hasn't really learned anything.”

And Sinead commented:

“I find constraints coming from the curriculum but you can broaden it out and take key learning outcomes and put them into a cooperative learning group in a way that doesn't mean that you have to strip the subject down to get the students through the exam. I find the education system in Ireland-if we want to make it interesting and tangible we are held back by what they (the students) need to know.”

In general teachers were happy to explore the subject material through any means at their disposal, but felt that prior learning was essential for a full understanding of the topics being learned using cooperative learning. The traditional teaching methods were, in their view, the most effective means of information dissemination but once this had occurred, cooperative learning could enhance the process of critical thinking and self-directed learning. So although the teachers were happy to engage with cooperative learning and saw validity in its measures, they were unconvinced of its merits as a singular

curriculum delivery mechanism. Teachers were also concerned with the amount of preparation necessary to successfully conduct a cooperative learning class. This was a positive feature of this phase because it meant that teachers were not just pursuing a group work ethic but really beginning to engage in cooperative learning in terms of its focus on the collective. As Tess mentions:

“You cannot do cooperative learning without preparation and to get everything organised with one class after the other piling into the room can be really difficult”.

And Sinead suggested that:

“...if I didn't have the class free beforehand I wouldn't even attempt it (cooperative learning). If another teacher was trying to leave the room and I have to set up with a different layout then deliver the little cards or whatever they are then it's seriously eating into class time.”

Strategic planning came up as an issue at this stage and although teachers felt that the approaches learned so far were useful, more training was needed for them to become fluent in these practices. The general consensus was that the more expert the teachers became in these methodologies, the more the students would be willing to engage in the process. As Jane commented:

“As the kids become more familiar with it they'll know how to use it and instructing them will become less time intensive.”

And Tess felt that it was getting easier for her already because the students were becoming “...a little more fluent”. Sinead also felt that their voice levels were more controlled and this was having a positive effect on the amount of work being produced in the class.

To summarise, in this phase the teachers were becoming familiar with the techniques necessary to successfully implement the cooperative learning

programme. They were, however, uncomfortable in that their role within the class was changing from director of learning to facilitator of learning. They were no longer in control of the pace of learning and to a certain extent the micro management of the subject material was now being conducted by the students. This was a huge responsibility and the teachers were concerned that students would not be able to handle such responsibility. So their approach was cautious. They presented cooperative learning classes to non-exam years and combined it with traditional teaching methodologies so as to establish prior knowledge. They would then use cooperative learning as a means of investigating the material, assessing the student's depth of understanding and revising the topics. So in essence they were prepared to engage in the change process but only conservatively and in conjunction with tried and tested teaching methodologies. They saw themselves as taking risks in terms of educational change but were not prepared to risk student learning in this new change environment.

Throughout this introduction stage the teachers found a number of obstacles that impacted on their ability to conduct the new teaching methodology. The constraints of time, the restrictions of the curriculum and the attitudes of the students all contributed to their difficulties. The complexities involved in developing appropriate groupings, the issue of high achieving students and students with special educational needs also came up as did the problem of students who would not engage in the process and lacked input in the subject material. However, teachers remained positive and willing to engage with the change programme. They began to collaborate more with their peers (identifying their colleagues as effective sources of support) and develop their relationships with the students who they increasingly acknowledged as crucial to the successful implementation of the change programme. Although they were cautious in terms of the implementation of the programme they recognised the importance of the teacher/ student relationship as well as their relationships with their peers as supports within the process.

The focus group setting became a forum for developing strategies, debating the dos and don'ts and generally allowing teachers to tease out their feelings about the changed practices in the context of Fairhill Community School. The teachers found the process useful but wished to combine the two focus groups into one so as to experience a wider range of opinions and ideas. The next section constituted the middle phase of the investigation. In this phase the teachers' knowledge of the methodology deepened.

Phase Two

This stage of the investigation lasted from January 2012 to March 2012. The issue from the first phase associated with the weaker students and their role within the group dynamic was still evident. There was a trial and error approach to the blending of groups. Anne for example put students into groups very carefully so as to create the right dynamic. She:

"...took a little time and the students were not really happy with me messing with the groups, but finally I started to see real communication happening and the beginnings of a collective responsibility – it was quite exciting!"

This phase did however see two teachers find their voice in terms of their opposition to cooperative learning. One of the teachers was very unsure of the validity of the process and the other teacher fundamentally disagreed with the principles of the methodology. Both were senior teachers who had a reputation for getting good Junior and Leaving Certificate results. Sally who was opposed to cooperative learning would attend the discussion forum but mark her homework whilst there. When I asked her would she mind leaving her scripts to the side whilst the discussion was going on she replied that there: "...wasn't enough time in the day for all I have to do and I am listening to the discussion". However she did contribute some valuable insights into the discussion. For example we were talking about the dynamic of the student groups and how some high achieving students dominated the proceedings when Sally interjected with:

“We spend our time tinkering with things that do not need to be tinkered with...why we don't just get on with the job we are paid to do and stop all this nonsense? These schemes are often here today and gone tomorrow so what's the point anyway?”

Fullan (2001) recognised this as a “this too will pass” attitude and commented that when it didn't pass some teachers put up blocking strategies aimed at derailing the process. However the majority of the teachers didn't feel this way and their general response to this sentiment was summed up by Anne who responded with:

“I know what you mean Sally but I think if we don't look at changing our practices, with all the technology and the way the kids behave with their access to the internet and all that, we will be left behind”

Jessica went a little further when she stated:

“If we don't change we can't be effective. Have you not noticed Sally that the department (of Education and Skills) is looking to change a whole lot of things starting with the way they assess the Junior Cycle. If we aren't prepared to change and go along with it we are in big trouble and so is this school.”

Sally's point was that educational change policy was fragmenting the application of the subject material and that we as teachers should be concerned with getting our students through their state examinations with the best possible results they could achieve. Rote learning according to Sally was a highly effective discipline and should not be criticised in the way it has been by both media and as she described “so called educational experts”. The teachers generally agreed that no teaching techniques should be dismissed and that they all have their uses in the context of teaching and learning but that meant that cooperative learning should not be dismissed either. As Judy mentioned:

“As teachers we need to be willing to accept that teaching and learning has a complicated relationship and that as teachers we cannot afford to dismiss anything that may help us to deliver proper learning.”

The focus group discussion continued with the idea that first year students were more content with this process than any other year. This was attributed to their prior experiences of a group learning primary environment and the fact that they were open to new ideas coming into the secondary school setting. As a newly formed group this helped in terms of developing a positive group dynamic and cooperative strategy. Even Sally who had quite negative things to say about cooperative learning conceded that:

“The youngsters coming up from national school don’t know what’s hit them when they enter our system. They have worked in groups for years and now they are told to sit at a desk on their own and keep quiet whilst we pour in the knowledge. It takes them a good while to figure this new system out so in a way cooperative learning is familiar to them and that is why they like it so much.”

The teachers were also beginning to see how the quieter, shyer students were beginning come out of themselves a little more - especially in the junior years. As Beth mentioned:

“It’s great for the social aspect of it as well. Like you’ve got the shy kids there and they go into groups and then gradually, gradually you see them come out of themselves in that sense. They get a little bit of confidence I suppose”

Anne finished this sentiment with:

“Well it’s giving them a role – they don’t like that role at the beginning....but then it becomes part of them”

This phase saw the teachers focus much more on their professional input within the classroom because the students were beginning to exert themselves

academically within the milieu of the cooperative learning experience. The teachers also began to notice a difference in attitudes between the junior and senior years with the junior years being much more positive about their experiences. Beth said that the way she felt in terms of the class was dependent on the particular group. For example she was comfortable with first and second years but less comfortable with the senior years. This was because of the time constraints that exist with the delivery of the Leaving Certificate programme and the students' history and experiences of learning. In fact Beth felt she had no "fun" in delivering cooperative learning to senior years but felt the opposite for the junior years (excluding the third year examination classes). Laura liked the idea of using cooperative learning within a team teaching milieu and when she said this many of the teachers agreed with her. As Jane said:

"...team teaching worked really well here (in the context of cooperative learning). You plan it beforehand with the other teacher and then bring the two groups together on a single topic. With two teachers in the classroom we can do three times as much work, neither of us dominates the class and the kids love coming together- it really works well".

Or as Laura said:

"...we've two groups, eleven in one and twelve in the other. They are higher and ordinary but it doesn't seem to matter although the higher level students have guided the weaker ones".

The teachers had in the first phase looked upon cooperative learning as a useful assessment and revision tool, but in this phase they had begun to use it as a tool for initiating learning. Jane for example felt that from a student perspective the use of cooperative learning groups as a mean of introducing new information was effective in the process of knowledge appreciation and allowed for the application of these knowledge principles on a much wider scale.. As she stated:

“... I’m thinking that when I was a kid in school I didn’t like maths and maths didn’t like me. And if I had the chance of working with other kids doing stuff, that I wouldn’t have felt so stupid. Our students have the opportunity to find out stuff together so nobody feels stupid because they are all working towards a common purpose.”

However teachers were still reticent in allowing cooperative learning to be the main driver in terms of curriculum delivery. They were cautious and wanted a blend of strategies that included a lecture style presentation at the beginning of a new topic. The difference at this time was that they felt they could trust cooperative learning to drive the study programme after the guidelines had been established and did not see cooperative learning solely in an assessment/revision role.

Teachers also distinguished between subject areas at this point and agreed that fact orientated subjects like Science and Mathematics needed firm guidelines and that the likes of English or CSPE were more concerned with subjectivity. As Beth mentioned:

“...fact-oriented subjects like Science of Maths need input otherwise students may never grasp the concepts. Explore them by all means but do not expect them (students) to know them straight off.”

Teachers were also recognising the benefits of cooperative learning in terms of students with special educational needs. Laura felt for example that it was:

“...brilliant for SEN and resource students... if you put a problem onto a page and give four students who would...be at the same level and there's no one real strong person in it... 'Between four of you there, you try and work it out.' And one person will do the first bit of the question and the next person will take up the next bit until all have contributed – it can be very effective.”

This phase saw teachers begin to question the external influences that shaped teaching and learning practices in classrooms. The general consensus was that change which did not develop as part of a teacher driven programme was doomed to failure. Teachers felt strongly that any attempt to impose change without proper consultation was not only “ridiculous” but “massively disingenuous to our professionalism”. Jane mentioned the Project Maths initiative as an example of how change can pretend to be consensus driven but is actually just another imposition:

“They (the Department of Education and Skills) have all these consultation sessions, which are really just subject in-services and when you challenge the validity of what they are saying or ask them to show you how that should be applied in school, you get a load of guff and no real answers!”

Frustration with past experiences of change and policy initiatives surfaced around this time. A particular frustration was with the lack of acknowledgement from policy makers and change drivers in terms of teachers’ expertise in the educational field. As John stated:

“...vast amounts of knowledge that had been accrued over the years had to amount to something, yet no one has ever asked me for my opinion.”

As the investigation process moved into the latter part of the middle phase, the teachers spoke more and more about how the profession needed to change due to the changing nature and sources of knowledge and information. There was a general consensus that practices did need to change, that the type of modern student with their access to information was forcing this change and that teachers, if they wanted to continue to engage successfully with their students, needed to develop strategies that would hold their attention and allow them to express themselves appropriately. The information readily available through the internet was of great concern to the teachers. The following conversation reflects this concern:

Tess: “So I think for me another problem with it (the internet) is that because you have this whole realm of knowledge open to you, where, you know –...”

Jessica: “Is the beginning and where is the end?”

Tess: “And where is the end? Exactly! And that means, really, we’re searching a whole lot more in terms of what works best in the classroom. You know, we can have so much information now. What do you actually use? What’s good to use? What’s – “

Beth: “You can get lost in the ether?”

Tess: “Absolutely!”

This sense of a lack of control was frustrating for teachers who felt that unregulated information was dangerous to developing minds. As John stated:

“Can you imagine how dangerous it is for our young people when accessing the internet? I am not talking about inappropriate material, but generally stuff that’s put out there as if it’s right. Our students could end up downloading all kinds of racist or sexist rubbish and because it’s in print it must be true!”

These comments highlight the increasingly diverse role of the teacher within the classroom. Outside influences, although always important in the context of classroom management, were now having a serious impact on student learning. From the teachers’ perspective this added to the way they not only delivered the subject matter in the classroom, but also how they dealt with student expectations in terms of their own learning. So through discussion and the sharing of knowledge, the teachers were developing a broader perspective on their role and this was reflected in a deepening appreciation of the complexity of this role as teachers faced the challenges of the future.

In terms of the cooperative learning programme, teachers were becoming much more familiar with its processes. Grace for example was reluctant in the beginning to invest too much in the new methodology because she did not trust it; however her comments fairly represent the sentiment as expressed by the teachers when she said:

“Well, I have changed there because I felt I was burning out. I was giving so much of me at the top of the class and, like, what you’re saying, there’d be so many of them I need to get round to their copies and again trying to get all the different elements that you’ve got to get in a class. So I introduced this (cooperative learning). They (the students) had to do a little project or presentation on the topics. The second years really surprised me. I’m doing it with them at the minute, to work with them. There’s certain people, like, I grade at the back. They have a grading sheet, the students presenting the whole topic and they’ve a set project to do on it, taking in the key learning outcomes. And then Chloe (a student) said could the group present it. I say ‘Well, okay. How do you grade that?’ And she says ‘I thought we were meant to mention the organisation, the union that we were in’ (a learning outcome). And that’s what I noted. But I was waiting for them. So they were regulating their own learning”.

The idea that students were regulating their own learning was important in the context of the teachers’ notions of the programme because it indicated a changing view of the student’s role within the classroom. Beth felt that the students had begun to learn:

“...organically even though I am conscious that there is a written exam at the end of the year...But at the minute it’s developing their skills - their presentation skills and esteem”.

Acknowledging that students had begun to learn from each other also came up and a number of teachers felt this was becoming very obvious in the groups. As Jane reported:

“...And they’re working in their teams and, you know, they are actually, I can see that that they’re enjoying it and they are learning from each other. Like one of them said:

‘Now nobody’s the leader as such. Everyone needs to play their part. Now nobody’s sitting back. Everybody needs to help.’ We have been doing this and it is actually improving their maths...”

Teachers were becoming much more positive about the change programme and had even begun to discuss the idea that cooperative learning could be a useful learning approach in the examination years. They saw cooperative learning as not just testing knowledge, but could and should be used to present ideas and develop research skills. This approach, it was felt, could also be used to support life and social skill development. As Jessica put it:

“I don’t believe we should be teaching just Junior and Leaving Certificate but also life skills because life doesn’t just start and end with the Leaving Certificate. You know college is about teamwork and what I do in cooperative learning is definitely a part of all this. In life in general you have to work in groups and teams...”

Teachers on the whole felt that the Leaving Certificate content had not changed significantly but that the way of presenting it had. The use of new technologies, the information on student abilities and the different delivery systems had all conspired to change the tone and in many ways the direction of the programme although they all acknowledged that the end result was the same. The teachers also felt that by developing skills in cooperative learning methodology they were displaying the ability to adapt and develop as teachers and thus possibly avoid the dangers associated with stagnation. Teachers felt that by learning different skills sets they were able to manage their teaching and learning in a more proactive and effective manner and what is more they recognised the importance of the role of the student in this respect. Tess for example commented:

“I’ve started giving the students responsibility for their learning by saying, ‘You’re doing it for you not for me’ but this time because the way the class is structured through cooperative learning they are believing me. In a way I am

benefitting from their actions because I am learning how to teach differently and although they don't know it they are helping me.”

As this phase came to an end, the teachers began to discuss the possibility of developing structures for peer mentoring and feedback. Most teachers were positive about this notion although the consensus was verbalised by Tess when she said:

“I'd be nervous but I would welcome constructive feedback like that.”

Overall the teachers were in fact excited by the prospect of working with their peers and felt it was preferable to being “...dictated to by the inspectorate” (John). There was even a suggestion that I, as the school principal, could have a role to play in this process. Teachers were afraid that this type of initiative could develop into a form of assessment and were very clear that strict guidelines would need to be in place before this kind of system could be implemented.

In summary, this phase saw teachers become more familiar with the technical aspects of application of cooperative learning methodology and began to recognise its validity as a teaching and learning strategy within the classroom. They continued to be cautious of these new strategies but were becoming more expert in how they developed and delivered them within the classroom.

In the first phase teachers struggled with implementing cooperative learning in specialised environments but in this phase they recognised its value in terms of dealing with students with special educational needs and those quiet and shy students. The teachers seem to grow in confidence as the students became more adept within their cooperative learning groups and this prompted the development of integrated approaches (teachers had for example begun to discuss team teaching strategies). Teachers began to distance themselves from the notion that cooperative learning was only useful as a revision and assessment tool and become more convinced of its expediency as a tool of

teaching at all stages of the learning continuum within their lesson planning. This led teachers to look at their own professional conduct in terms of teaching and learning. Although there remained a note of caution in terms of using cooperative learning as the main teaching and learning strategy, teachers had widened their view on what types of subjects would be best suited to the operations of cooperative learning. In this phase teachers began to challenge the external influences that informed educational policy. They felt that the transformation from policy into practice was destined to failure because of the lack of direct consultancy with them as key stakeholders within this process.

The teachers also recognised that through the cooperative learning process students were beginning to regulate their own learning (through peer assessment as an example). Their social and life skills were also enhanced. The student voice supported by the process of cooperative learning promoted a more critical perspective on student needs and allowed teachers more understanding of student needs in terms of the learning and achievement.

In the final stages of the middle phase, teachers began to discuss the possibility of mentoring each other. Traditionally teachers have always worked in relative isolation but with cooperative learning strategies based on a collective focus, it seemed appropriate that teachers should come together to assist each other in this endeavour. Throughout this phase teachers became increasingly confident with the change programme. Although there were some dissenting voices the majority of teachers saw the value in engaging in a process that took them out of their comfort zone but still allowed security in terms of their actions and adaptations. The risks were relatively low and the results high and this made the cooperative learning proposition attractive for the teachers.

Phase Three

This stage lasted from March 2012 to the end of May 2012 when the investigation period formally concluded. This phase initially reflected the teachers concerns about the perceived contradictions that existed between the national curriculum and its methods of assessment with the principles of

cooperative learning. Some felt however that the cooperative learning could be integrated into the Junior and Leaving Certificate curriculum. All the teachers agreed that a more flexible assessment system would complement their endeavours in this respect. As Judy stated:

“It’s difficult unless you change the assessment methods because it’s like today, we’re looking at your results that you get and it’s difficult to change how you’re teaching.”

Or as Jessica suggested:

“They go in as pure rote learners. End of the day, that's the way they're being assessed, so you know, it's difficult to be, it's great and all being able to go in and I think they retain it more long term, the information they get in cooperative learning. But at the end of the day, that's not the way they're being assessed. They're going in and you know, a week from exams, two weeks from exams, rote learning, in they go, learn it the night before some of them, and pass their exam. With cooperative learning, I think it stays with them more long term, but not with the rote learning”.

The concerns teachers had with assessment procedures differed from the first phase. Then, they saw it as a serious almost insurmountable obstacle whilst in this later phase they began to devise strategies to challenge the issues. As Laura stated:

“I have no doubt that cooperative learning will deliver the subject material...”

Or Jane, who continued:

“Cooperative learning makes you organise yourself in much more detail than you normally would. By using this way of teaching I find I am looking at all the angles and kind of second guessing what the students are going to come back with. This makes the lesson much more powerful.”

So the teachers had moved away from criticising the change programme to viewing it as a strategy that had validity and purpose. The idea that cooperative learning was only suitable for certain subjects was now challenged and at this time in the investigation process, all subjects within the curriculum were being taught using this methodology. Teachers felt that cooperative learning enabled the integration of different learning approaches, but were concerned that the type of assessment procedures used within the Irish education system ran counter to these principles. The national assessment approach, particularly in the Leaving Certificate was not fit for purpose and did not credit the knowledge and experience that the students had enjoyed through the cooperative learning process. As Sinead mentioned:

“I mean after all the exams don’t pick up half of what the students learn – not a quarter - all that good stuff from cooperative learning wasted because they have to sit a narrow and prescribed exam...”

At this time frustration that that their newly developed expertise could potentially be eroded by lack of change in the curriculum and that the efforts to reform were too slow, not consultative enough and based on superficial application of ‘new’, but not thought through ideas, was evident.

As Tess stated:

“I enjoy working on these new ways of looking at the subject matter but sometimes, if I am honest, I think ‘why bother?’, I am not getting any extra for this extra work and nobody in government is looking for my opinion. Then I think ‘well its working isn’t it?’ and at the end of the day it’s about the kids – not any flashy politician.”

Jessica added:

“I like doing this kind of thing because I feel I am learning. When kids tell me that that was a great lesson I feel really good, and if I am honest, I rarely got that kind of feedback from the students - probably more to do with the subject (Irish) than me - I hope!”

Frustrations also arose as teachers reflected on their journey of learning. Throughout the investigation process, teachers had been quite critical of their own teacher training and especially the one year initial teacher training postgraduate programme (although it was recognised that this system was changing to a new reconceptualised two year programme from 2014), that allowed new students into a teaching role relatively quickly

As John said:

“Is it acceptable that they come out of university after five or six weeks and are put in front of a class and told to teach?”

However he answered this question himself when he finished with:

“...but I actually am quite sympathetic to them now because I was reminded myself how, if you are prepared you can conduct a class (in terms of implementing cooperative learning) – I think common sense is really important here, and maybe these students are not as unprepared as I sometimes thought they were.”

Further reflection on their journey of learning identified the essential difference between the novice and more experienced learner and realisation was building on the importance of lifelong and continuous learning as a teacher. This reflected a growing assuredness and confidence as a result of their involvement in the change programme.

“...there is nothing wrong and probably everything right about learning on the job. After all we were given five to six weeks instruction and then basically told

to get on with it so what's the difference except that we had already established our classroom controls." (Sinead)

Judy observed:

"I read somewhere that when psychologists come out of college their knowledge has a half-life of five years. That means half of what they have learned is probably useless after this time, but we as teachers, well this isn't the case is it? I graduated in 1994 and the teachers coming out today seem to be learning the same things that I did - that shouldn't be the case especially as the kids are changing so much?"

Maggie responded by saying:

"You learn the basics in college but having loads of common-sense and energy and being prepared to adapt and learn as you go on is the key to survival in teaching. You don't wear the same clothes as you did twenty years ago but that doesn't mean they wouldn't keep you warm!"

Awareness of the lack of a coordinated curriculum between all three levels in the education system was also evident at this time. There was realisation that this lack of synchronicity between the levels was putting many students at a disadvantage.

As Sinead mentioned:

"That's why you'll have high failure rates in first year, though. Do you know what I mean? And we all knew people who were there in September and they were gone by Christmas because they couldn't stick it. So there's no point in just achieving the points you need to go to a university or a degree course you have to know what you're doing. Otherwise it's not for you."

The groups felt that the use of cooperative learning in this respect at least gave the students an opportunity to experience critical thinking skills and self-directed learning – a prerequisite for success at third level. Judy seemed to sum up what the teachers were beginning to see as fundamental when she said:

“I think when we are teaching them through cooperative learning, a lot of the time, we're teaching them to learn how to learn themselves so that when they go out, like even in computers or teaching them about a topic and even trying to inspire, do you know, mention something that will teach them to go out and look it up and look at it differently...”

The group tended to agree with this sentiment but still felt that students struggled with discriminatory skills due possibly to the content's lack of relevance. For example Tess commented:

“...with some they're very critical. Like they can deal with a variety of topics related to smoking, sex, alcohol for instance but ask them to explain Nazism and they look at you as if you have two heads!”

Therefore it was felt that if a programme like cooperative learning was developed for first years and integrated into the learning patterns of the school, then it had real potential to tackle issues of team work and critical thinking with positive consequences for students entering third level. The teachers also felt that working independently was important and that there was room for independent learning and cooperative learning to support each other. They asked school management at this point to support their own learning and development, including organising educational in-service, team teaching, pedagogical supports and events that would help generate and facilitate further learning. The idea of developing a set of best practice guidelines which focused on the incorporation of the various learning styles in everyday classroom practice was mooted as well as the setting up a mentor programme for teachers that involved school management in the process.

So teachers began to interpret their change experience in a wider context than their own classroom. They were concerned with designing whole school programmes that took cognisance of the different learner needs and approaches and developing whole school supports for students coming in from primary school. Teachers also reflected that it was important to have a thorough understanding of the student coming into first year (learning styles, ability, strengths and weaknesses) in order to efficiently put in place the new teaching and learning strategies. Some teachers however challenged the notion that all learning approaches and levels could be achieved in a forty minute class. However they did not feel this was a serious obstacle to the development of such a whole school systematic approach. Judy seemed to speak for the group when she said:

“I would start off with the basic elements – learning outcomes, literacy and numeracy significance and that kind of thing and make sure I didn’t complicate it for them - tell them what I wanted them to learn, tell them how I felt it should be taught, establish clear guidelines and then begin the process. I know we should do this anyway but with the added element of cooperative learning group work and the reality that they won’t be spoon fed and that they have to find their own way - through the boundaries as laid down - I would then deliver the sting by telling them they had the freedom to learn the material how they liked to learn it. This would take a lot of organisation and I would have to have the right resources and technology to do it, but it would be great – I think!”

Or as Tess stated:

“I would take bits out of it that work for us. And I think again, with the cooperative learning, there are certain bits of it that work. And if you're looking at the different learning styles, I think it is possibly one of the best ways of catering for as many learning styles as possible because you have within the group somebody can speak it out, while somebody else is listening. You know, so they're active. They can do it within the group, so I think that's possibly the best way to try to incorporate all of their learning styles...”

However the teachers did come back to one of their main issues which was the narrow constraints of the Junior and Leaving Certificate programmes. They felt the knowledge content and assessment procedures would impact negatively on developing strategies for the incorporation of multiple learning styles but were optimistic that the new Junior Cycle would begin the process of ‘de-memorising’ (Jane) the syllabus. This did not mean that the teachers wanted to get rid of terminal examinations – they saw great value in them - but they wanted a situation where a more holistic approach to assessment was achieved - one which would encompass the skills developed through cooperative learning practices. Furthermore they were concerned that the new assessment protocols would dumb down the process. As Tess mentioned:

“The new Junior Cycle curriculum is nearly, I was looking at it, and it's nearly a mimic of the TY. And the TY programme well the majority of schools are still finding problems with it, as in measuring its value at the end of it. Now, socially, people would say, 'Yeah, some kids really blossom.' But at the end of the day, for the Junior Cycle, such a programme is difficult on a teacher because at the end of the day, there has to be results – with the new Junior Cycle curriculum I'm not sure how relevant these results are.”

This sentiment was reflective of the fact that teachers still saw, to some degree, their own efficacy in terms of student results. While it has to be acknowledged that significant movement in terms of teacher's perceptions of the role of reform had occurred, the issue of terminal examinations were still impacting on teacher's views on educational change

Sally, who had resisted the new change programme from the beginning of the second phase felt:

“...even if we go back to the Junior Cycle and just look at that, if we go with what colleges are teaching new H.Dip students, that to incorporate all of these new learning methodologies and new practices into your teaching - you can

become a circus show. And at the end of the day, some children just overload. If you did that to a computer, giving instructions the whole time, it's going to crash. And I think what happens to children is, they just get fazed and they literally go blank. And I think peeling back is more important.”

Teachers saw credibility in this statement but were concerned that superficial change which had a more political dimension than an educational one should not obstruct the genuine and relevant changes that were beginning to take place. As Jessica pointed out:

“We want them (the students) to enjoy coming into school. And if there's more and more information to be delved out to them, and they haven't a chance to assimilate what they're getting already, you know, the pressure just builds. It builds for teachers and it builds for pupils. And I think it takes the whole enjoyment out of learning, you know. And as a teacher, you do enjoy teaching pupils when you know they're getting it. By using these different methodologies and challenging their own learning strategies they are getting it – despite all the other stuff that is going on”.

Teachers then returned to the issue of a lack of consultation in the whole educational change process. At this point it was clear that internal blame cultures had been replaced by a more externally focused frustration which reflected a growing disconnection between them and their classroom practices and the national policy, expectations and requirements that are driven externally, and, which in turn leave teachers feeling isolated. Maggie for example asked the group:

“Has anyone here been asked or consulted about all the changes that are going on?”

Jane knew someone who had been consulted but described her as “....being up in them circles...”

The group consensus was that their role as teachers' was simply to implement the changes because that was their job. However Sinead felt:

“At the moment, I think that's the only role we're given because we're not being asked. We're not asked for input. If you do give any little bit of input at an in-service which is the only opportunity you get, you're kind of pushed to one side. You're not listened to. You're kind of patronised, yet you go to any of the NCCA meetings and there are glossy brochures say that there was a wide consultation process - it's simply not true!”

Teachers were frustrated by this and pointed to the fact that when given a local initiative to implement like cooperative learning they had worked hard, consulted, discussed, experimented and applied what they felt was an extremely effective change programme. Jessica echoed this frustration when she described policy makers as:

“...non-practitioners who devise policy but do not know the back-end of a classroom- not since they were seventeen anyway”

Teacher dissatisfaction in the way educational change was devised and the expectations on teachers to deliver this change dominated this phase of the investigation process. Maggie, for example, felt that she was:

“...alienated as a teacher, as a profession in how the education system is moving on. I mean I feel have been left behind even though I would love to contribute to a discussion.”

However teachers, regardless of their feelings towards this macro change process tried their best to interpret and implement the changes appropriately. As Judy pointed out:

“I personalised it - you have to make it your own and I suppose that's the same with any job. I mean you're given your rules to work within, but I mean you can change it to suit your own needs.”

John felt:

“You have to get on with it, that’s your job - take it or leave it...”

And Grace commented:

“When I hear of these new changes, I feel kind of stubborn and want to resist them, but then look at the students and feel well maybe it will benefit them. I am not convinced by all the changes that are going on and much prefer the way we have done it with lots of discussion and support but I am sure that our contribution on a national scale will count for nothing.”

Sinead felt that change practices were subject to a whole raft of issues, none more so than experiencing failure. As she said:

“Cooperative learning reminded me of how important failure is sometimes. I spent the first couple of weeks getting things wrong with the groups - I would try something and it didn’t work, then I would try something else until eventually things began to click. I think the Junior Cycle will be a bit like that but I feel our kids will have an advantage because we have been there - and I don’t mean just because of cooperative learning I mean the fact that we have tried something new and it’s taken us through hoops to get it right...”

In the last stages of the final phase teachers spent a lot of time reflecting on their experiences throughout the year. There was a general consensus that delivering the content of the subject matter in any given area, although high on the teaching and learning agenda, had been superseded by the need for students to experience a deeper understanding of the material. This deeper understanding would facilitate the ability to apply the knowledge in a variety of

different circumstances. So teachers were learning from past experiences and because of this were building empathy with the students. They had begun to realise the value of the process of learning to learn

As John stated:

“...that's what you're trying to always do with them, teach them to learn, how to learn it, showing them how to do it, showing them how to answer the question. It's not just the content you're teaching because they can learn that book off inside out, but if they don't know how to apply it in answering a question at the end of it; they're not going to achieve anything...”

The student experience was thus becoming central to the teachers' pedagogical strategy. The idea that learning approaches shaped teaching approaches was being developed at this stage and many teachers commented that the everyday reality of managing a busy class often clouds the skills necessary to meet the needs of their students. For example Sarah commented:

“When I volunteered for your research thing I didn't realise how far away I had got from what really mattered. I know I am a good teacher, I get on well with the kids and get good results but this co-op learning allowed me to stand back and really understand what was going on in the learning life of the kids – I think the text book is important but not half as important as I used to think.”

There was a consensus of this sentiment throughout the group with many of the teachers commenting that their relationship with the students had really improved as had classroom discipline. The dissenting voice in this was Sally's who felt:

“We get too much information about the students - we do not need to know their learning styles...just need to sit them down in front of you and go...nothing they teach you in college prepares you for coming out - it's like learning to drive, you are the one behind the wheel on the motorway and everything depends on you...”

The pace and type of change was discussed at length and for teachers who had either seen rapid change within their subject areas (like maths) the frustration was lack of consultation and the inappropriateness of the subject material. For others it was a lack of any change that prompted frustration. However for the vast majority of participants, the opportunity to implement a change programme that was so influenced by the practitioners went some way to alleviating their frustration. Some of the teachers, however, were a little wary of the influence the economy and big business was having on educational policy change initiatives. Many teachers saw employers as the main influence on the redesigning of the curriculum. As Sarah believed:

“...they (big businesses) want our students to be able to apply maths practically. So they (the Department of Education) listen to the employers in this country and tell teachers, ‘now there you go’ – the decision has been made. Where’s the consultation in that...”

John felt:

“...on the one hand we feel that we are changing constantly as teachers but on the other the system isn’t changing at all or changing inappropriately. There just doesn’t seem to be any balance so we have to create our own balance by investing in programmes like this one.”

They were also concerned with the role the student played in this change process. They realised the significance of the student in the whole process but acknowledged that their position was undermined by more powerful elements within the system (including themselves as teachers). They all agreed that once involved the student had a significant part to play but that the student voice was weak.

As Grace pointed out:

“I could not have succeeded with my changes if it were not for the students. If they resisted it would have been very easy to go back to the old ways and in the beginning they did resist. But once you include them in the process you would be surprised what they would come up with. They definitely made the cooperative learning successful for me.”

The final part of this phase reiterated the teachers’ frustrations with the terminal assessments, both at junior and senior level. Although they had spent the latter part of the investigations period devising strategies to combat the issues of assessment, it was still a constant source of annoyance and frustration to them.

As Sinead said:

“We are paid to ensure our students reach a certain level of knowledge...and ultimately have the ability to sit an exam on their own. This is what I find so frustrating – I would love to explore my subject with them without this sword of Damocles hanging over me - and them!”

Or John:

“At third level, they think critically. At first level, they do lots of group work, lots of interaction, but at second level, do you not think we have a problem?... thinking critically... we don’t encourage that at all and why? - because of the exams!”

Critical thinking as a key skill was highlighted in the context of assessment and the teachers felt frustrated by the fact that in most cases at ordinary level there was no real need to develop these skills and some teachers questioned its necessity at higher level.

Judy for example commented:

“...grind schools don't teach their students to be critical - they work out the critical thinking strategies for them... so the exams don't require students to be critical even at higher level...just be able to manipulate questions on the paper...”

This prompted a discussion on teaching and the use of the textbook to protect the 'poor' teacher, Jessica felt that many poor teachers often hid behind the restraints of the curriculum and simply worked from the text book

“...they are going through the rigmarole of standing at the top of the class reading out the book....they are not teaching they are simply reading and when a parent complains that their child is not performing well, then the teacher can say with confidence that they are covering the syllabus and what more can they do?”

The consensus was that the text book is only one tool for learning and should be used sparingly.

Tess for example said:

“I only use the textbook as a kind of prop. I always look for other things to get the students going - there is so much out there and especially since YouTube has been allowed in the school - there is tons.”

The consensus at the end of the investigation period was that the change process within the school had been useful on many levels. The teachers, students and wider school community benefitted from working together to effect change. Although the teachers had some reservations concerning the viability of cooperative learning, there was a virtual unanimity in relation to the value of the process undertaken by the teachers as a change group. A structured and supportive approach to change, such as the one used in this research project, promoted discussion on educational change issues and encouraged peer interaction and support on issues and problems. A significant factor was that

working together in this way to effect change was important as it opened up lines of communication that did not exist prior to the introduction of the change programme. This encouraged the development of new teaching and learning strategies in a milieu that benefitted both students and teachers.

This phase saw some of the wider issues of educational change start to dominate discussions. Although teachers still had some concerns with the methodologies used in cooperative learning, they were for the most part discussing and developing solutions to these problems. One such problem was assessment, particularly the terminal examinations, and it was a recurring issue. There was a clash between the teaching and learning strategies of cooperative learning and the design of the examination system and this clash caused deep concern for the teachers.

Teachers on the programme experienced a different type of professional development during the research phase because it concentrated on student cognitive processes where more traditional in-service focused on developing the subject material. The teachers enjoyed this experience and saw the value in introducing this type of practice in their professional lives. Overall the teachers saw cooperative learning as having a role in promoting critical thinking and self-directed learning. However being involved in a process of change was the most important aspect of the experience. Whereas the actual vehicle for change was a useful exercise and had tremendous value as regard teaching methodology, it was the involvement in the decision making process, the discussion and consultation and the flexibility to apply these changes in an environment in which the teachers were expert that held so much value for them. It put them in control of the change and allowed them to take ownership of it. Although there were frustrations and difficulties and a battle between the needs of the students and the needs of the system, at all times the teachers felt in control of the situation and this made it a feasible proposition in terms of their role as agents of change. So the teachers growing professionalism, their widening perspectives on their work both outside of the classroom and away from the narrow structures of examination results together with the tangible power of

dialogue seemed to indicate that the teachers were becoming increasingly confident in their change practice although it is still prudent to acknowledge Sarason (1990) when he talks about the more things change, the more they stay the same. Teachers have to guard against a complacency that could slow down or derail change practices.

Conclusion

The investigative process took one academic year (August 2011 to June 2012) and used cooperative learning as the vehicle for educational change. Within this process I was interested in gaining an insight into teachers' responses to the change process and why they responded in the way they did from introduction to implementation. This chapter described the different responses and emphases. It made sense of the stream of ideas that took form throughout the year and put them in order so as to discern patterns that will be interpreted and analysed in the next chapter. Throughout the investigative period, the teachers contributed freely and honestly. As the year progressed they were at a stage of willingness; to take advice, try new approaches and report on the outcomes at each meeting. When they were successful in their endeavours they shared it with the group and when they were less successful they were keen to explore the reasons why their tactics didn't work.

As time evolved, change became the most important aspect of the research project. The act of devising new techniques, the sharing of ideas and the whole consultative process enabled the teachers to fully participate and engage and as a consequence report accurately on their experience and response. Cooperative learning is a useful methodology that can have a very positive impact on a student's learning. The teachers recognised this but were more attracted to how they could adapt this methodology to their own approach to teaching. By being able to influence the operation of the practical application, the teachers saw tremendous value in the change programme and were willing to engage with it sufficiently to effect meaningful and sustainable change within Fairhill Community School.

Through participating in this new change strategy teachers deepened their professional understanding of pedagogical practice. There was a sense of desire to actively engage with practices that would enhance student participation in the learning process. Teachers' confidence grew in this respect as they connected with these new strategies and although there was a certain implementation dip (Fullan, 2001), having gone through this they emerged at a different level of understanding and confidence. At this stage further supports are necessary to both enhance practices and build towards more long term changed practices. Teachers' attitudes changed quite significantly during the research period. At the beginning they were cautious and reticent in their approach to issues of change and although always willing to participate, were conservative in the application and implementation of the new methodology. By the end of the research period, they were more adventurous. They were prepared to take risks and were quite willing to challenge old practices.

From the research three influential variables emerged to inform the response of the teachers to the change initiative: the nature of the programme, teachers' perceptions and their prior experience of externally driven initiatives. Each of these variables had a profound effect on the progress of the change programme and its outcomes and shaped how the programme was presented and established within the culture of the school setting. These issues confirmed in many respects the suppositions made in literature about the nature of change and how it can be sustainably achieved and it is to these suppositions that I now turn.

Chapter Five – Discussion and Conclusion

Introduction

This chapter is concerned with analysing the responses of the teachers in an attempt to gain an insight into what motivated them to react in the way they did to the introduction of a specific educational change initiative. It takes as its basis the responses recorded in the findings chapter and reflects on the literature on change when explaining these responses.

Overall the responses of the teachers to the change programme were very positive. They engaged early on in the process, acknowledged, developed and respected the new teaching and learning strategies, came to view change very constructively especially in the context of a wider school perspective and through the focus group setting participated in a collegial way that exhibited characteristics of a collaborative community of practice. In fact the focus group discussion forum became increasingly influential in informing the responses of the teachers to the change initiative and played a major role in the research study. Throughout there was an element of cynicism from the teachers who had previously experienced externally driven educational change initiatives that had not been inclusive and consultative in nature. Perceived restrictions associated with both the curriculum and assessment system together with time constraints also contributed to a reluctance to embrace change. Teachers who had traditionally experienced success with their students in the Junior and Leaving Certificate also saw no reason to change and so resisted the initiative. Within this response context, three major themes emerged that had a significant impact on the teachers. These were; (i) the nature of the programme and its introduction (ii) the teachers' perceptions and (iii) prior experiences of externally driven change.

In terms of the nature of the programme and how it was introduced, a number of issues emerged which affected the way teachers responded to it. Essentially the programme was focused on supporting teaching and learning in the

curriculum. The intention of the programme was to enhance the learning experiences of the students so as to increase their achievement levels. Thus the central focus of the change initiative was closely aligned to the teachers' core purpose. It took into account the needs of the students and that of the school and so was recognised as having relevance in terms of the professional obligations of the teacher. Teachers were also involved in the programme's development from the very beginning and so came to rationalise and understand the initiative relatively quickly. This enabled them to grasp, early on, its aims and objectives and this created a sense of clarity and ownership which gave meaning to the process and direction to the project. Ultimately this 'meaning making' contributed significantly to the success of the programme and possibly explains why teachers were so positive in their response to it. Finally leadership and support was also a crucial factor. The school leader trusted the teachers to develop the programme and provided time and resources to allow this to happen.

In examining teachers' self-perceptions of their change role, what emerged were matters concerning their professional stance - being a teacher first and then being a teacher in Fairhill Community School. How teachers conceived of themselves, the expectations on them in terms of the wider school community and their own perceptions of their teaching role within the school and education are the dimensions of their identity as a teacher. These teacher identities, allied to their attitudes to change, motivations, experiences, beliefs and commitment to professional development all interacted with the change programme to generate the responses as described in the previous chapter. The freedom that allowed them to develop the programme and their sense of ownership which came from this freedom also significantly impacted on their response. They were trusted to formulate, develop and extend the programme and this gave them belief in the efficacy of the initiative and a strong sense of responsibility in making it successful. This was supported by their prior experiences of innovation and planning in the school, which had been a major focus in the school in the years leading up to the change initiative. They were familiar with

the expectations of management in this regard and had established protocols and procedures with which to engage in this type of process.

The third significant factor that affected teachers in the context of their relationship with the change programme was external to the school system. Throughout the study, teachers commented on the difficulties they faced as implementers of educational change. They were concerned that the requirements of the system did not easily match those of the learning needs of the students and context of teaching and learning today. Teachers were also profoundly worried by the assessment procedures and final examinations used to evaluate student abilities and struggled throughout the programme to align cooperative learning methodology with the more individual measurement system as practiced in the final examinations. In terms of their past experiences with nationally driven change programmes, there was caution, especially in the beginning, of engaging in a change initiative that might not fulfil its potential, involve teachers appropriately and take cognisance of the needs of both teachers and students.

These factors had a significant impact on the way teachers viewed the whole process and influenced their responses to the different stages of the change programme. These factors also informed the teachers' decision making processes as they came to make sense of the programme and its outcomes. This chapter thus focuses on these issues and explains teacher responses to change in terms of them. In reflecting these factors, current literature is used to test emerging hypothesis and in particular Michael Fullan's theories on educational change especially in the context of the role of the teacher, is drawn upon. The significance of this role has been illustrated throughout the research project and this chapter will confirm many of Fullan's theories.

The Nature of the Programme

A prerequisite for this research study, investigating the responses of teachers to a change programme, was to create an environment that fostered success. This success depended upon the nature and substance of the programme. Without

approval from the teachers in terms of the relevancy and appropriateness of the programme, it would have struggled to survive. Fullan (2001) stressed the importance of creating a suitable change programme in the context of the milieu in which it is set. It had to fit with the culture and ethos of the setting and address the specific needs of the school. The purpose of this programme thus needed to be clear and it had to be framed in a way that was conducive to practical application. In this case study the programme took cognisance of the needs of the students and the school and tackled real issues relating to classroom teaching and learning. In introducing cooperative learning as the teaching and learning change mechanism, the needs of the students were considered. The teachers involved in the study understood that students sometimes needed something different to engage their learning and it was felt that academic levels could be raised by presenting cooperative learning as this alternative. The teachers approved of this type of initiative to enhance learning as it fitted in with their underpinning moral purpose and professional obligations. As approval was forthcoming in the first instance, the teachers were willing to engage in the process and open to developing new teaching and learning strategies (Fullan, 2001).

The Introduction Phase

The literature on educational change supports the assumption that if teachers are not consulted in a meaningful way at the initial stage of a change initiative, then the chances of any programme being successful is low. The teacher's role is multifaceted and often uncertain (Day 2002, Van Veen and Slegers 2005 and Fullan, 2011) and so any proposed change programme needs to have clarity and accessibility from the beginning. This does not mean that it cannot redefine its aims once it is up and running. Fullan (2011) suggests for example that it is important to get the programme up and running and that once it is established it can focus more succinctly on its direction. However it does need in the introduction phase, purpose and direction because it is at this stage that a shared knowledge base of understanding, ideas, strategies, opinions and experiences is developed to support the process as it moves forward (Fullan,

1991). This shared understanding was achieved in a number of ways in Fairhill. There was initially a consultation stage which was designed to inform teachers of the general details of the programme. Discussions on the merits of educational change took place at this point and specifically the merits of cooperative learning. Teachers' had an opportunity to investigate the new change initiative before they committed themselves to it. Involvement in the change programme was voluntary and this encouraged commitment (Fullan, 2001, Tuohy, 1999) to the programme. So the teachers' voices were heard very early on and their involvement at this stage informed them of the aims and objectives of the programme and what their specific role would be. The teachers were given time to reflect on the proposal and invited to a series of workshops which were intended to further inform them of the theory and practice of cooperative learning.

The importance of the workshops cannot be underestimated. Fullan (2001) argues that successful change is in danger if overload, fragmentation and incoherence are allowed to develop. The narrow change focus that was being developed in Fairhill meant that teachers could follow well-defined guidelines which gave them the opportunity to concentrate on their own change arrangements within a well-established theoretical framework. Fullan (2009) calls this "the skinny of change" (p.16) and believes that less means more. Single issue change he argues has the potential to transform school cultures and practices far more effectively than if a number of initiatives are proposed simultaneously. So the purpose of the workshop sessions was to focus the teachers on the single issue, explore its details and become familiar with its concepts. These workshops were also concerned with proposing strategies of best practice and creating momentum for teachers to engage in the development of local capacity as advocated by Fullan (2001). His assertion was that change actions should be developed at school level and supported by all leaders (management and teaching staff). He felt it should be assertive and proactive and foster a sense of shared ownership of the principles of change in an environment that encouraged diversity. Fullan also believed that if the importance of local capacity was overlooked, the introduction period might

experience significant difficulty that could result in confusion, alienation and lack of understanding in the context of participants engaged in the change process. The workshops thus equipped the teachers with the methodological knowledge to coordinate cooperative learning practices and explored what was expected of them in terms of the programme as they moved forward with it.

This initial period encouraged teachers to identify with, acknowledge positively and develop the change programme as it evolved. Evidence from the study indicates that early on teachers took the opportunity to discuss issues and express themselves in terms of the substance and direction of the programme. They used the focus group forum to this end and quickly moved from being implementers of a pre-determined change action (where they viewed their role as organiser but not agent of change) to that of change architect with responsibility for designing and developing new change practices. This freedom to engage with the process had a profound effect on the way the teachers connected with the change programme and a sense of ownership of the initiative was established early on because of this (Fullan 2001).

Focus Group Discussion Forum

The focus group forum was in many ways the hidden outcome. Although originally designed as a vehicle for collecting information on change practices and responses, it became a critical conduit through which teachers could distribute ideas and information in a supportive environment. During group sessions, the teachers took the opportunity to highlight issues of a practical nature, discuss wider educational issues and support each other in terms of the change initiative. This demonstrated that they had established a positive connection with the change programme and so underlined their sense of ownership early on. The discussion group forum also enabled the teachers to keep in contact with the main change strategies. This was important because educational change can become convoluted (Fullan, 2001). The focus group forum allowed for a space where central issues could be addressed as the process continued. This encouraged focus and clarity of purpose at all stages of

the change programme. The teachers constantly touched base with these principles and avoided many of the problems associated with the complexities of change (problems such as ambiguity, uncertainty in the process of practical application and remoteness from the central themes). Teachers comments like; “If we don’t change we can’t be effective,” or “If we aren’t prepared to change and go along with it we are in big trouble and so is this school,” reveal the fact that they saw the programme as being fit for purpose. They saw the necessity for exploring alternative teaching and learning strategies and used the focus group forum as an appropriate milieu in which to develop their thinking in this respect.

This forum encouraged teachers to connect with the change programme in a way that allowed them to both express themselves and contribute tangibly to the initiative. The research shows that this was a positive experience for them. Their voice was not only being heard but acted upon as well. However the research also indicates that this forum was not just an opportunity to distribute ideas and strategies, it also acted to connect teachers in a setting that encouraged an academic and theoretical ethos. Discussions of this nature are difficult to facilitate in the typically busy environment of a school and so a dedicated forum is important. The teachers came together on a regular basis with a specific set of issues to discuss and where a variety of interrelated perspectives were expected. Within this forum a social element was created because it not only allowed teachers to examine pedagogical and professional issues but gave them the platform on which to do it. According to Fullan the change process cannot be achieved simply through technical means - there has to be appropriate milieu where social and professional interactions take place – a setting where people can learn to change and where an awareness of the needs of the students can be discussed and considered. The development of the forum allowed this process to grow and so addressed issues of change that were “technically simple but socially complex” (Fullan, 2001, p.69). Reinforced by professional responsibility, this forum supported the initial phase by keeping clear lines of communication open to all involved in the change process. It encouraged a sense of collegiality and maintained change protocols as the

programme developed. The boundaries, direction and goals of the programme remained in focus and the project itself accessible to all participants.

The literature on change acknowledges that at best its implementation can be problematic. The issues of disconnection between the external ideas that drive change and the learning processes that need to be in place to implement it (Fullan and Pomfret, 1977) mean that certain principles and preconditions need to be in place before it can reasonably be attempted. Fullan (2001) mentions a good quality innovation with high accessibility to it, supports from the wider school community and crucially teacher advocacy as exemplars. Once these are in place there needs to be a format in which the process can take place. Within this format, teachers need to be able to shape and develop strategies that can then be used in the implementation process, the forum in this case study. The teachers used the focus group forum not only to develop their skills, but to share their experiences, values and needs as the programme developed.

The focus group forum had unexpected repercussions for this research project. Although there was always a consideration that collaboration would be an important aspect of the change programme, the degree to which teachers came to rely on the forum was not anticipated. The knowledge that was shared in this forum allowed the teachers to achieve a deeper understanding of change practices. Without the forum it could be speculated that an authentic discussion on educational change and change practices may not have taken place and that a significant level of change acceptance may never have been achieved. Whatever the situation, the forum permitted the emergence of a collaboration that saw teachers engage in a process which supported them in the development of teaching and learning strategies in a shared learning environment.

Teachers' Perceptions

A number of issues arose concerning how teachers conceived of themselves in terms of the change programme. Not only were they concerned about their moral and professional obligations, they were also cognisant of their role within

the wider school community (especially in the context of student expectations). A person's beliefs systems informs their self-perception and these had a significant effect on how they responded to the change programme throughout the study. There is a strong relationship between how teachers interpret change and what level of belief they have in its efficacy (Levin and Wadmany, 2005). Beliefs are shaped by a number of factors and are driven by the teacher's emotional perceptions of the world around them. In Fairhill, teachers' beliefs were influenced by traditional isolationist practices, prior experiences of change innovation, their freedom to develop the change programme in terms of a locally devised initiative and the resulting sense of ownership that came from this. They also trusted the change agenda which they acknowledged as being consistent with their moral purpose as teachers.

Levin and Wadmany (2005) saw personal belief systems as having a powerful effect on what teachers learned from educational reform schemes. Their study demonstrated that teachers tended to adopt new classroom practices based on whether the assumptions underlying new practices were consistent with personal epistemological beliefs (see also Yocum, 1996). This created an 'intuitive screen' (Levin and Wadmany 2005, p. 284) through which teachers would interpret teaching reforms. If their beliefs did not match the goals and assumptions of the change innovation it was likely that this initiative would be resisted, but if compatible with the aspirations of the educational reform then it was highly likely that these change practices would be accepted and adopted. In the first phase of the programme teachers saw obstacles to successful implementation everywhere. They commented for example on the classroom noise generated by group work, the amount of time needed to prepare lessons, the lack of constructive book work and the physical environment required to accomplish their lessons appropriately. They immersed themselves in the minutiae of the issues that faced them and often felt overwhelmed by the amount of work involved in the process. At this point in the programme teachers were not fully committed nor did they fully trust the change initiative. It is true that they had been extensively included at the introduction stage, but because the programme was still new and strong communication links had yet

to be established, an uncertainty in the process had developed which had in turn caused a negative reaction to the details of the programme. Kanter (2011) saw this as an example of a loss of control and routine – a situation in which teachers began to question their own competencies. Fullan's (2011) reculturing and restructuring concepts had not come into play and the teachers in effect did not know how to behave appropriately in the context of change (Sergiovanni, 1996). As a result negative emotions manifested themselves and teachers began to retreat into an official world that supported traditional notions of pedagogical practice – this world in effect cushioning them from new, untried and uncertain practices. Isolationist practices were very conspicuous at this point. Teachers were unfamiliar with a focused collaborate environment and not comfortable in developing a shared knowledge base. There was also security and comfort in remaining in an environment that discouraged discussion on pedagogical practices. Hargreaves (2005) argues that when educational change occurs teachers do not respond in the same way and in this particular instance, until the teachers began the process of discussion, they rationalised change on an individual basis which resulted in a lack of cohesion overall in the change programme. The years spent developing strategies independently and teaching in isolation meant that teachers remained cautious of the new collaborative setting. They had become self-reliant and it took time to share their skills and methods. The change programme gave them a conduit for doing this but they used it sparingly in the early part of the programme.

Understanding teachers' belief systems is complex because they are influenced by many factors and uniquely individual. However in Fairhill there were a number of conclusions that could be drawn for the experiences of the teachers within the school and which assisted in developing certain aspects of their belief perspectives. As has been stated in earlier chapters, the teaching staff was on the whole relatively new to the school - the majority of them having taken up service in the last five years. In this time trust had been established between staff and management .There was a strong teaching voice, policy provision was developed using a whole staff approach, resources and time were allocated to staff to assist them in developing new ideas and projects and in general staff

got on well socially. They were focused on improving the academic situation in Fairhill and very clear on how to achieve this. I mention this because when the cooperative learning change programme was introduced, most teachers were happy to volunteer because they saw it as a way of supporting the improvement programmes in the school. So in terms of their beliefs, the clarity in which they perceived the change initiative enabled them to avoid Nespor's (1987) "entangled domain". They had experienced a comprehensive programme of school planning that had clear objectives and direction and when engaging in this new change initiative, had experience in interpreting and connecting aims and objectives in a practical way. They also knew from past experience that their opinions would be valued, that they would be listened to and that their ideas and strategies would be acted upon.

There was however some resistance in Fairhill to the change programme. Some teachers were resistant to this type of change programme because they saw no value in 'tinkering' with teaching approaches when it was very clear that the traditional methodologies were working just fine in terms of student achievement at terminal examination level. These teachers, for the most part, had adopted a traditional approach that was working for them and could not understand why they should change and adopt what they saw as a riskier and unproven approach. The factors involved in creating a successful change initiative are so wide and complex that it is inevitable that some resistance will occur. Teachers are pragmatists (Tuohy, 1999) and want to apply practical principles to theoretical models. This means that the implementation of change needs to be seen as workable, realistic and effective and for the teachers who resisted the change programme, there was no evidence (especially in the early phase) of this. Teachers in Fairhill were at all times conscious of their professional obligations to student learning. They engaged in this change strategy because they became convinced it would assist in enhancing the learning experiences of their students. Stoll *et al.* (2006) argued that educational reform was dependent on teachers believing it could promote student learning. Within the school the relationship between students and teachers also had a significant impact on teachers' responses as did teachers'

sense of ownership and freedom in the context of the development of the change initiative and it is to these that I now turn.

Teacher-Student Relations

The teachers accepted that academic improvement was necessary in Fairhill and that students would benefit from a programme that developed a range of competencies designed to enhance learning experiences and academic outcomes.

They were however cautious of introducing new teaching and learning strategies and concerned that the students would not respond appropriately to the methodology if they could not relate to it (Johnson and Johnson, 1999). The blurring of traditional roles within the classroom also had an effect on teacher's perceptions of the change initiative because this new teaching and learning dynamic encouraged by the initiative brought student participation in the classroom to a different level and teachers had to adjust accordingly. By handing responsibility for learning over to the students, the teacher lost a certain amount of control within the classroom. This loss had to be carefully considered by the teacher who above all else did not want to lose control of their classroom.

The experiences of the teachers' and their students often mirrored each other in that both faced uncertainty at the beginning of the process which manifested itself in some resistance but as they progressed and became more competent this resistance disappeared to be replaced by a palpable commitment to the initiative. The teachers mentioned that some students (mostly high level students who were comfortable and competent with the more traditional individual system of learning) resisted the change but on the whole the majority of students came to enjoy their experiences and gain academically from the process. The teachers commented that by the end of the research study interactions between students and teachers had improved as well as academic results and classroom discipline. Kohn (1993) supports this notion when he argued that teachers who gave their students a voice benefitted in a number of

ways including an increase in student participation in the classroom, less instances of bad behaviours and the opportunity to interact with students more closely due to higher levels of self-discipline and self-motivation. One teacher for example found, after spending a lot of time working out the best group dynamic, that; "...I started to see real communication happening and the beginnings of a collective responsibility – it was quite exciting." Or another teacher felt; "...it's giving them a role – they don't like that role at the beginning....but then it becomes part of them".

Teacher/student interaction was a fundamental factor in how the teachers responded to the change initiative. Throughout the programme, the students were given more responsibility in the classroom. They began to control the pace of learning, had significant input into how the subject material was studied and became accountable not only for their own results but that of their group. However from the teachers' perspective they never lost management control of the learning environment. This was very important in the context of this study. Teachers had expressed grave concerns at the start of the project that unregulated learning could transform structured class lessons into a 'free for all' with the resulting consequences for learning, classroom discipline and teacher mental health being disastrous. However the more they came to understand the change programme the easier it was to hand responsibility for learning over to their students. With the students becoming more comfortable in this role the teacher followed suit and became more adept at guiding the learning through this kind of group work practice. As one teacher commented; "I could not have succeeded with my changes if it were not for the students. If they resisted it would have been very easy to go back to the old ways and in the beginning they did resist. But once you include them in the process you would be surprised what they would come up with. They definitely made the cooperative learning successful for me." This statement reflected a new classroom dynamic which was emerging to promote and support self-directed learning and allow self-determination for the students. In essence the student was given a voice (Rudd, 2007) and in this setting radical change is possible wherein learners have ownership, responsibility and management powers (Czerniawski *et al.*

2009). Although this radicalism was not fully realised in Fairhill, it gave the student a sense of purpose and control over the learning which translated into a higher engagement in the learning activity within the classroom

So how did teachers redefine their relationships with the students? One teacher commented that; “I had never asked students how they wanted the lesson to be delivered and all of a sudden I was asking them. They were not sure how they wanted it delivered and nor was I but at least in my mind I was beginning to test boundaries and although a little uncomfortable with this idea, I was glad to give it a go.” Or another said; “I’ve started giving the students responsibility for their learning by saying, ‘You’re doing it for you not for me...’” The development of this partnership in learning was an important feature of the research project. Czerniawski *et al.* (2009) when discussing the transition of policy into practice contended that the perspective of the learner had often been neglected or ignored and Fletcher (2005) argued that teachers should put the experiences of the student at the centre of learning in the classroom. The learning experience should, according to Fletcher, be reciprocal and in order to do this the teacher must learn to understand how the student rationalises his learning (Rudduck *et al.* 1996). Lee and Tan (2011) saw the best way of achieving this as putting the experiences of the student at the heart of the lesson. In terms of creating a reciprocal learning relationship, the teachers in Fairhill attempted throughout the process to engage with the students in a scenario where learning was shared. One teacher for example stated; “In a way I am benefitting from their (the students) actions because I am learning how to teach differently and although they don’t know it they are helping me.” Although this collective learning was not explicit, it was some distance from the traditional notion of the teacher/student relationship and the act of engaging in this type of behaviour clearly indicated that some teachers had begun to view their students as partners in the learning process. Other teachers found that once they gave the students responsibility for their learning they were surprised by the quality of what came back. For example one teacher stated: “when my group went and researched the different topics they came back with a depth of knowledge that surprised me ...’ or from the student perspective, one teacher felt; ‘As the kids

become more familiar with it they'll know how to use it and instructing them will become less time intensive.' They became; '...a little more fluent' in the process. Teachers explained that the longer the process went on the less they engaged in the control of the pace of the learning. They also noted that they were less involved in the management of the subject material - a role that had been taken on by the students. Hargreaves and Shirley (2009) noted that education systems and schools should focus on students as the driving force in educational change because this would in effect create millions of change agents – the idea that students could be agents of change was understood very early on in this study as teachers realised that without the cooperation of their students, no viable change could happen.

Teacher Ownership Practices

How teachers perceive, interpret and adapt to change is governed by their belief in its efficacy (Hargreaves *et al.* 1998, Day, 2002, van Veen and Slegers, 2005 and Drake *et al.* 2001). This is driven by their experiences, collegial relationships, organisational structures and external situational pressures. Because of this teachers often have a complex notion of change (Lortie, 1975 and 2002) which is frequently developed in isolation. In Fairhill this situation was countered by the development of open lines of communication which allowed for the pooling of ideas on change and the strategies necessary to manage it. Teacher ownership of this programme became more obvious as the project developed and many examples of it came up as teachers' understanding of the change process deepened. Fullan (1991) defined ownership as taking responsibility for the practices and procedures within a change initiative and believed (along with Hargreaves and Shirley, 2009) that it was essential for teachers' to take ownership of a change initiative early if they wanted to fully understand its processes. The evidence from this research is that the teachers responded early to the change initiative and began to take control of its processes relatively quickly. They shared classroom strategies, suggested discipline procedures for students not interacting with the cooperative learning programme, pooled ideas in terms of motivating their

students and suggested peer mentoring programmes and positive criticism practices as way of enhancing their own systems of change delivery. This clearly showed a willingness to engage at a deep level with the change and represented a profound understanding of the issues associated with this particular change initiative. In Fairhill the opportunity to work outside of traditional isolation practices and engage within a forum that fostered debate impacted hugely on the implementation process and strengthened the teachers' notion of ownership of the change within the programme.

Understanding the change initiative was thus crucial to its success. Fullan (2001) argued that if teachers did not understand the process, then it would fail because its objectives would become blurred and ambiguous. It was therefore important that early engagement in the process be undertaken so that teachers could appreciate the structures and direction of the change initiative. Once this knowledge base was established teachers could begin the process of developing better strategies that accomplished their needs as professionals and those of their students as learners (Fullan, 1993). In Fairhill teachers quickly grasped the basic ideas of the change programme and began early on to develop their own strategies of implementation. Teachers were also advocating the new programme which is clearly seen in their attempts to persuade students to engage with the process. One teacher for example said; "...I had to do a lot of selling of this new way of learning and so started with very small amounts of it and slowly built up." Or another teacher gave this advice;

"...in time they would buy into the process but in the meantime expect resistance and a lack of commitment from the students in this respect. They hate sharing especially the bright students."

The evidence in this project indicates that the teachers took a relatively short time to establish ownership of the programme and that by the end of the first phase they were directing the process as well. They used phrases like "testing boundaries" or "selling this new way of learning" and "buy into the process but in the meantime expect resistance" to signify how their roles as teachers were changing. This was further demonstrated in discussions they had within the

focus group forum when they began to develop new strategies through consultation - strategies that could engage the change programme on a schoolwide basis and in partnership with other stakeholders in the school community. For example one teacher was developing a strategy to challenge students who were not contributing to the team and another teacher sharing her techniques for engaging with weaker students so as to develop their competencies within the cooperative learning setting. These suggestions were incorporated by the group into their own practices when engaging with the programme and frequently teachers would discuss how they applied a certain strategy that had been formulated in this forum and the consequences of this action. Again we see the significance of the focus group input into the process. It effectively shortened the period of acceptance of the programme by facilitating engagement with the initiative, enabling a sense of shared ownership and focusing on the change agenda as it progressed.

So from early on teachers were showing a willingness not only to engage with the change programme but also with the process that allowed such a programme to develop. This meant that they had begun the process of becoming change agents. They were persuading students through a variety of means to embrace the changes and were enjoying the consequences of the change practices. They were controlling the pace, direction and consequence of the change initiative and developing new systems that reflected their expertise as practitioners of education. When they expressed concerns about introducing cooperative learning to exam years, it was made clear that they had the last say in this matter. They had the freedom to create new approaches unhindered by agenda driven external forces.

The teachers' commitment to the change programme confirms Fullan's assumption that once understanding and ownership of a programme are achieved, it has the capacity to become successful and sustainable. When ownership occurs, the change participants become advocates of the change process and once this happens the initiative has a good chance of succeeding. In Fairhill, most of the teachers became advocates of the change initiative after

undergoing this process although it was not immediate and some teachers never fully advocated the programme because they were not convinced of its efficacy. However overall teachers were positive about the change initiative and believed enough in its merits to support and develop it as a school wide initiative.

In conclusion we can see that the success or failure of a change initiative is dependent on how teachers respond to it. This response is frequently dictated by belief systems which are in turn influenced by experience, environment and relationships within their work place. Personal belief has a powerful effect on teacher practices and determines whether a change practice is going to be accepted or rejected. The belief systems of the teachers in Fairhill shaped their responses in a number of ways. They had experience of engaging in school development planning and were satisfied that their opinions and suggestions would be taken seriously. When this new change initiative was introduced teachers had a strong notion that they would be listened to and allowed to develop change in accordance with their own ideas based on pedagogical expertise. Trust had been built up in the school over a number of years and teachers were not suspicious of the change initiative intentions. There were however reservations and these were influenced by teachers' experiences as teachers in general – teacher isolation, imposed expectations, professional identity and a lack of belief that the change system was better than what it was replacing. These issues combined to create a scenario where teachers had a range of issues to deal with and these issues informed their responses and progress as the change initiative developed.

It is thus reasonable to acknowledge that some change took place within the initiative. The depth of this change in terms of teachers' beliefs in the change process is however questionable. Throughout the initiative teachers engaged in a wide range of change practices but their commitment to the institution of this change within the school remains difficult to predict. The teachers had come so far but were still heavily influenced by the constrictions of the system in which they operated. It seemed that in order for sustainability to be achieved further

structures needed to be developed as a way of cultivating and deepening the teachers' commitment to change (see below).

External Influences

Leithwood and Sharratt (2000), Fullan (2001) and Hargreaves (2009) believed that external factors played a major part in promoting change. However in this case study it was found that external influences played an ambiguous role in the change process. For the most part teachers tended to view external factors in a negative light. They felt that change policy at government level tended to be superficial and inappropriate to their everyday practices. They considered their role within this type of change setting as simply that of implementer and not partner in the change experience. They also felt that external issues such as assessment and the type and amount of content in the subject material conspired to encourage traditional methodologies of teaching that did not take into account self-directed learning and critical thinking practices. The more the teachers engaged with their own locally devised change project the more they seemed to become frustrated with external issues impacting on their ability to deliver their methodologies. Throughout the study teachers were commenting on various initiatives that had been introduced by the Department of Education. These included Project Maths and the new Junior Cycle Programme. The problem was the lack of cohesive planning and consultation that took place prior to the introduction of these initiatives in school. This meant (in their view) that their role was to implement the strategies but without any input into its structures and outcomes. Fullan (2001) argues that this type of change initiative is doomed to failure because it cannot work without all participants engaging in the process of construction from the beginning. The teachers in Fairhill argued that a lack of consultation was the biggest factor in the context of their resistance to any new change programme (again consistent with Fullan's theories on successful change practices). In fact throughout the study teachers used words and phrases like "patronised," "not listened to," "non-practitioners who devise policy" and "alienated as a teacher," to describe how they felt about how the change process was developed in the Irish system. These experiences made teacher wary of any new change initiatives even though they were

conscious of the fact that change was necessary. This resonates with Tuohy's (1999) assumption that teachers dislike being changed although they do not mind changing. The evidence in this project points to the fact that teachers, if consulted and listened to would have no issue with engaging in change practices so long as they could have a legitimate say in its proceedings.

When engaging with a new external change policy, the teachers felt an opportunity was lost in the roll out phase because in-service was traditionally focused on the subject matter and not the development of new teaching and learning strategies. Project Maths was a good example of this. Teachers involved in this programme recorded that they were often left powerless and frustrated in terms of how they should interpret the new subject matter and the effect this would have on the students. Teachers within the focus group forum time and again spoke about their frustration in not being consulted on major policy issues (such as the reforming of the Junior Cycle) and were concerned that whenever a consultation process was instigated, it was simply an opportunity to lay out new strategies that had already been devised and approved and almost exclusively focused on informing teachers simply of changes to the subject matter.

Teachers also took issue with the narrow structures of the assessment and examination system and the impact these had on what and how the students should learn especially in terms of their retention and interpretation of the subject matter. Their exposure to cooperative learning as a new teaching and learning strategy had impacted on their view of how students learn and they were finding it difficult to connect these strategies with the traditional ways in which students were expected to learn and be assessed. As the teachers developed in their role as change advocates however, they began to see opportunities in adversity. For example in the initial phase of the investigation, teachers were unhappy with the imposition of a new Junior Cycle which encouraged more independent learning but which also required teachers to become involved in its design, assessment and evaluation. However by the end of the last phase of the investigation process, the teachers saw the new

programme as an opportunity to further develop students' abilities in terms of critical thinking practices, team and group work and self-directed learning. In effect teachers within the programme had begun to see that change was a proactive endeavour; that in order for it to be useful and successful they would have to mould and develop it to the teaching and learning needs of the change participants. They began to stop viewing it as something that was being done to them and began to see it as an opportunity to develop their own skills and so enhance the learning outcomes of their students. So an old frame of reference was being replaced by a new frame which instead of resisting change was generating openness with the teacher at its centre.

In the beginning teachers found it difficult to understand the value of testing students within a group setting. They saw no relationship between this type of assessment and that required by the education system and had a major problem with assessing a student in terms of his input into group practices. However as their understanding of the programme deepened the teachers began to see a connection between the traditional requirements of the assessment procedures and those of cooperative learning. Although teachers continued to have concerns about the role of the examination process they moved away from issues of incompatibility between cooperative learning and traditional teaching methods and refocused on the content and approach to what was actually being tested. All teachers saw the validity in having assessments but as they progressed through the change process they became more interested in challenging the notion of testing memory. They verbalised this in many ways including one teacher who said; "I don't believe we should be teaching just Junior and Leaving Certificate but also life skills because life doesn't just start and end with the Leaving Certificate" or another who felt; "...they go in (to the exams) as pure rote learners... with cooperative learning, I think it stays with them more long term, but not with the rote learning..." This statement reflects the teachers' deepening sense of how the structure in which they were operating could be manipulated creatively so as to reframe the change initiative to suit both the needs of the students and themselves but at the same time continuing to meet the criteria as laid down by the requirements

of the system. They were in effect balancing the needs of the change programme with the externally driven needs of society and negotiating an outcome through contestation and compromise.

In conclusion, the external factors which influence change had an early negative impact on the teachers in the case study. However as their knowledge and understanding of the change programme deepened, teachers began to create pathways that allowed them to work within established structures and yet continue to develop their skills in terms of new teaching and learning provision. The issue of assessment and time became less problematic as their skills of delivery developed and externally imposed change issues which had always been a source of cynicism were beginning to be viewed as opportunities to design new change strategies instead of being seen as a restriction on creativity. So in effect the teachers' frames of reference began shifting towards what Fullan (2011) described as the 'ready, fire aim' process – a scenario in which the initiative is commenced and then gradually finds its focus.

In this study teachers' experiences of the way change initiatives have traditionally been imposed on them (usually in a top down manner) made them cautious in accepting change initially. They were wary of superficial change and commented frequently on the difficulties they experienced in attempting to implement change that they had no connection with and that lacked supports. However once they realised that they would have a meaningful contribution to make to this particular reform programme, they were far more accepting of these changes (reflected in Hargreaves (2004) study on teachers' emotions where he emphasises the importance of inclusivity in the design and conduct of the change programme). The teachers spoke about how important it was to them to be involved in the change process and compared their feelings in this respect to how they felt when change was forced on them through outside agencies. They enjoyed the experience of being involved in a locally devised change initiative and saw merit in continuing to develop change strategies in this way.

Conclusion

This study set out to explore how teachers responded to the introduction of a new educational change initiative. The nature of this initiative addressed issues of teaching and learning and was primarily concerned with enhancing the learning experiences of the students within the study. However the focus of the study was on the teachers and the central theme was concerned with how they rationalised new change practices, what influences affected their understanding of the change process and what strategies they put in place to deal with them. The change model used was well established, systematic and successful in a number of international settings (Johnson and Johnson, 2009 and Kagan, 2000), however it had not been practiced in this research study location and was in most part unfamiliar to the teachers.

I was interested in investigating teachers' responses to change in the context of a successful change programme. I chose a well-established pedagogical model of teaching and learning because it provided me with a theoretical framework and strategies of practical application that the teachers could engage with relatively easily. It is comparatively simple to identify why change fails; it is not so easy to see why it succeeds and it was this that motivated me to introduce a change model that had potential to succeed. If provision could be put in place to assist in the implementation of the new change programme, there was an opportunity to identify successful change strategy (as well as understanding the less effective approaches) and this would allow for a systematic analysis of change that had the potential to support best practice. In doing this there was the potential to formulate a set of rules that could be applied to different change circumstances but that had the potential to achieve successful outcomes. This is the heart of the project. By investigating how and why teachers responded to change I was attempting to understand the processes that needed to be engaged in order to achieve successful and sustainable change. However, educational change depends on what teachers do and think, (Fullan, 2013) - this sentiment summed up my approach to this study. The change model was

chosen because it had the potential to succeed but throughout the study, the focus was always on the teacher's response within the change environment. There was a high level of teacher interaction throughout and teachers essentially drove the initiative from the beginning. They were never passengers in the programme - they were active in designing and developing new teaching and learning strategies (within the parameters of cooperative learning methodology) and their own ideas had a major influence on the direction of the change initiative. So the problem the thesis addressed was concerned with the response of the teachers to change. It is well established in the literature that teachers' play a key role in change (Fullan 2011, Hargreaves 2009, and Hiebert *et al.* 2002). There are so many influencing factors on this role that exist to derail the process, especially in the early stages, that it is almost impossible to develop a coherent strategy to navigate the process successfully and guarantee a successful outcome. However in examining the influencing factors that affected teachers' response to change, this study attempted to find pathways to success that could be applied in different settings and circumstances.

With the Irish education system having experienced quite significant changes in the last number of years, teachers were wary of change. However there had been a series of capacity building events and initiatives within the school that had generated a willingness to engage in the change initiative. The nature of this change initiative was closely aligned with the primary purpose of teaching and the concept of enabling learning for students was closely aligned with the principles of cooperative learning. This change vehicle was a suitable model for understanding teachers' responses to change because it was tried, tested and workable (albeit in other contexts). However the focus was not on the actual programme but the reactions to the programme and so the study had to take cognisance of the factors that influenced these responses. Three major factors emerged and these had a profound effect on the teachers' responses to a change initiative. The introduction and nature of the programme, teacher perceptions and external factors - all contributed to how the teachers conducted themselves throughout the process and how they rationalised and interpreted the change. Emerging from the analysis are three messages of change and

these relate to coherence, connectivity and communication. They all had a significant and interrelated role to play in the pattern and shape of the teachers' response to change.

Coherence

In the first instance, in order for change to be successful it had to have coherence and relevance to the professional and moral obligations of the teachers. The change had to align with these if teachers were going to accept and respond positively. Although the specific methodologies of the pedagogical approach were often at odds with traditional teaching practices (in terms of giving control of the learning to the students, allowing group activities that created their own pace of learning and the teacher being facilitator instead of director of learning), the fundamental sentiment of enhancing student learning, improving the environment and outcomes was central to the teachers' motivation in respect of the change programme.

From a wider perspective the study also acknowledged that the change had coherence and relevance to the school. As has already been suggested (see Chapter 3), Fairhill Community School had experienced a difficult period in the mid-2000's and only in recent years had it begun to function effectively again. The vast majority of teachers involved in the research project were relatively new appointments to the school (in the last 5 years) and they had heavily invested in bringing the school up to acceptable educational standards. This change was an opportunity to continue this development. Teachers understood the direction the school was going in and recognised a strong connection between this and the fundamental principles of the change initiative. So building and creating coherence between the ethos of the change initiative and that of both school and its teachers is the first message from this study

Connectivity

This change initiative had to work on an operational level in order for it to succeed. Teachers' capacity to deliver the programme and the methodological requirements of the programme need to be connected. The use of workshops at the introduction stage allowed for the development of the teachers' skills sets in this regard. This coming together to develop new teaching and learning strategies also meant that a framework of practice was created and thus began the process of collaboration which developed into a framework of support. The need to connect to the process of change was thus critical in terms of teachers' response. It is well established in the literature that change often fails because teachers lack confidence in their own ability (real or perceived) to deliver it (Fullan, 2001). Early connections in terms of competency were thus essential to the success of the programme and with the development of the skills to implement these new practices came a confidence to develop new methodologies that could further enhance the learning experiences of the students. This is an important issue because at all times the teachers were focused on the needs of the students. They were prepared to try new strategies but were not prepared to jeopardise students' learning. Building connectivity with the readiness, ability and willingness (Tuohy, 2008) of the teachers to engage in change is the second message from this study.

Communication

When introducing any change initiative there is a real possibility that it will fail because it is fundamentally complex and relies on a huge number of variables in order for it to work properly. As the chances of any change initiative failing are high, it is essential that procedures are established to either anticipate problems or deal with them when they occur. As change is the responsibility of all its participants there has to be a mechanism within the initiative to allow for a collective response to these problems as they arise. In other words there has to be a space in which effective open lines of communications can be realised and which allow the participants of the change programme to talk to each other,

express ideas and opinions, discuss strategies and solutions and keep in touch with the core principles of the change topic.

In this research study the forum that grew out of the data gathering process was absolutely critical to the success of the project. By default this component of the research process came to define its success. It linked all aspects of the initiative consistently throughout the investigation period, defined its direction, gave it impetus and allowed for the development of wider change applications throughout the school. It impacted on school culture and ethos and determined the focus of school development planning into the future. It assisted the students in experiencing an enriched learning environment and challenged traditional notions of teacher isolation. It also encouraged a teacher-based approach to continuous professional development, peer mentoring and collective teaching strategies and gave teachers an opportunity to develop a shared knowledge base within a collaborative community of practice.

Within the focus group forum teachers took the opportunity to deepen their relationship with the change initiative. They did this by engaging in authentic discussion with their peers on a wide range of pedagogical and practical issues. They brought strategies and ideas to the forum in anticipation of developing them so as to optimise their usage within the classroom setting. They also expressed their hopes and fears and discovered that many others felt the way they did about a whole range of educational issues. This created a sense of unity within the change initiative and confirmed the strength of the support that had been put in place by the existence of the forum. This discursive environment also allowed for the exploration of theoretical models of pedagogy and finally the forum gave the teachers an outlet to air frustrations that affected them in other walks of their professional lives. Crucially this setting perpetuated a sense of freedom to make decisions about the change programme and through this created a consensus of ownership of the change model itself – a critical aspect of any change initiative. An effective communication forum was thus essential to the success of this programme. In developing and supporting collaborative practices it placed itself at the core of the research project. It

brought people and issues together and ensured that the change programme within the school was coordinated, relevant and ultimately successful. Creating a space for authentic communication amongst teachers is the third message from this study.

The Research Question – Connections and Conclusions

At the beginning of this research process I outlined a number of guiding questions that developed from the original research question and which had the purpose of assisting in the understanding of the central research focus. As a reflection on these questions I would now like to take the opportunity to comment on them. I will take each question individually and consider their impact within the context of this research project.

- (i) Because I am specifically interested in developing a successful change programme, I wish to know, from a teacher's perspective, what this looks like. I am cognisant of the fact that a pre-initial phase will have to be introduced in order to consider these issues and from this I hope to gain an insight into teachers' views on the new teaching and learning programme and make some determinations regarding educational change from this.

The teachers' notions of educational change at the beginning of the process were quite negative. When I introduced cooperative learning as a change vehicle, most teachers were quite sceptical of the concept of educational change because they were used to changes being delivered externally and in an environment which fostered little or no participation. They resisted the suggestion that the classroom dynamic needed to change in a favour of a more balanced relationship between the student and the teacher and made comments like: "...are we not going too far in giving students responsibility for their learning" or "How can we get through the curriculum if we stop and spend time talking and exploring the subject matter..." They did not recognise in the early stages that this was an opportunity to develop a locally driven change programme and so some resistance was present. However in the pre-initial

stage I delivered five workshops on cooperative learning and the teachers began to respond positively not just to the idea of cooperative learning as a pedagogical tool for syllabus delivery, but also as a means of effecting some educational change at local level. So the pre-initial stage was crucial in teachers understanding of the change programme. They began to recognise that educational change was possible from a local perspective if it could be interpreted and shaped within the culture of the school. The understanding of educational change at this point meant that the change initiative had a chance of success. It also reflected the first fundamental lesson of this thesis- that of coherence. The pre-initial stage began the process of clarity and understanding in an environment that was relevant to the moral purpose and obligations of the teachers.

- (ii) In expanding the last point, I wish to find out how important teacher knowledge of the change programme is before engagement takes place.

It was critical in terms of this localised change initiative and in the wider change context that the teachers had sufficient knowledge of the change programme. Without this knowledge, teachers would have been unclear of the process; they would have found it difficult to navigate the new change programme and this had the potential to create failure within the change milieu. Fullan (2001) speaks of this lack of clarity when he comments on the fact that teachers often engage with educational change without reasonable understanding of its implications. As a result the change initiative often falters and fails. In this case, the teachers had a comprehensive programme of skills development on the mechanics of the change programme and as such could engage with it early on and begin to make it work within their classrooms relatively early in the process. This again supported the notion of the importance of coherence in the development of the change programme and teachers attitudes to it because it further enhance clarity in the underlying context of what was required in order for change to occur.

- (iii) From the pre-initial stage I also wish to determine whether the actual substance of the change programme is important.

It was critical that the teachers believed in the merits of the change initiative. They were willing to embrace change but not at all costs. It had to align itself with their moral purpose and professional obligations; it had to benefit student learning, be practical and useable and management had to back it up with time and resources. Once these elements were in place, teachers were happy to engage. So in terms of it being cooperative learning, no this was not important, but cooperative learning fulfilled all their requirements in the context of the teachers needs and so was appropriate in terms a change programme. This supported the second lesson of this thesis, that of connectivity. The teachers began to view the programme on an operational level and gained an understanding and capacity to deliver it appropriately. They had developed the skills to engage with the substance of the programme were beginning to connect their own working practices to the new methodologies.

- (iv) If the substance of the change programme is important I want to know why this is the case.

In terms of the substance of the programme, it was found that accessibility to the material and familiarity with the methodologies was important, but the actual substance was less so. Teachers were happy to engage with the new change initiative but often adapted it to their own particular classroom based needs. So in terms of actual substance, this was less important than the skills to deliver the programme and a comprehensive understanding of its procedures. This connection reaffirms the second lesson of this thesis.

- (v) I am interested in teacher knowledge of the change programme at the introduction stage and how this develops through to the implementation stage.

In order to create a successful change initiative the teachers had to gain a comprehensive understanding of the change programme. The pre-initial stage had prepared them for this in terms of a theoretical perspective and by the introduction stage teachers were comfortable in the context of their ability to present the new programme (the coherence lesson). Although teachers were not technically proficient in the cooperative learning methodologies (this comes

with implementation in a real-life scenario), they were equipped to deliver the programme, were aware of some of the dangers of delivering this type of group work methodology and could navigate this pedagogy with some skill (the connection lesson). The implementation phase allowed the process to develop and deepen and each time the teachers attended a focus group meeting, it was obvious how their understanding of the process, both on a local level and from a wider educational change perspective had improved. Throughout the implementation stage, the teachers' knowledge of the programme continued to grow; they developed new techniques to tackle student and resource based issues and began sharing strategies and ideas with each other in order to progress the change initiative in the context of a whole school approach. This reflected the three lesson of the thesis in that they used the opportunity to develop an in-depth understanding of the new methodologies (coherence), they worked together to develop their capacity to deliver the change modules (connectivity) and they fused a discourse forum with a hybrid learning space to create awareness of the realities and the possibilities of the change initiative (communication).

- (vi) The implementation phase in the context of change is critical and as such I want to understand how teachers cope with this stage of the process – what do they do in order to deliver the programme and how does this influence their thinking in terms of educational change.

Teachers coped with the implementation phase in a number of ways, but the most significant was the use of the focus group to disseminate ideas on best practice, work collaboratively, discuss issues as they arose and generally touch base with their colleagues in a way that allowed for specific discourse outside of the social situation of the staff room. Teachers are very good at functioning within an isolationist milieu (Lortie, 1975) and in many respects they continued this practice when engaging with cooperative learning. However they were more willing to work in teams, happy to discuss difficulties in the implementation process and share ideas, fears, hopes and aspirations in the context of a locally driven change practice. In being able to share their experiences of change, teachers became much less negative about educational change generally and

much more confident in their ability to effect change within their own local environment. This stage of the process reaffirms the communication lesson of the thesis. Teachers needed to occupy a space where they could engage with the change initiative collaboratively. In this space they disseminated models of best practice, shared technical issues and designed new approaches to change challenges.

(vii) This research project is dependent on voluntary participation and as such does this influence the change process and its outcomes?

All the teachers involved in this research project were volunteers. They were willing to participate because they were interested in the ideas of cooperative learning and educational change generally. In my position as administrative and change leader, I found it difficult to conclude whether being a volunteer affected the change process and outcome. It would appear that if there was reluctance to participate, this could create resistance and although there was some resistance to cooperative learning pedagogies, the teachers still undertook to deliver these strategies within their subject areas. As the process continued, the teachers invested more and more in it. They took ownership of the programme and spoke about persuading their students to engage in it. So in terms of creating a programme that relied on goodwill from the start, it seems obvious that this element of volunteerism was important, but in terms of sustaining it over a prolonged period of time, I feel that the teachers possession of the process and programme was far more influential.

(viii) I am interested in understanding the affect a locally driven initiative has on the research participants. Does it influence their behaviours and if so why and does it allow greater access to the change programme- if so why?

The fact that this change programme was a locally driven initiative was crucial in terms of the effect it had on teachers' participation. The teachers spoke about external change and the frustrations they experienced with its imposition. In contrast this local project allowed teachers to participate in change in a whole new way. They not only had a consultative role, they were able to develop and

redefine the change process and programme. This allowed freedom to express their own ideas and initiatives and share them in a milieu of collegiality and collaboration. They had responsibility in ensuring that the change programme worked and because they enjoyed greater access to it they valued it much more.

- (ix) I am cognisant of the fact that change needs to be sustained and developed and in this light I am interested in finding out if this is achieved within the context of this change initiative.

One of the major problems with change is its sustainability going forward. Even if all the components are in place and the initiation and implementation stages have been engaged, the continuation stage is problematic. In the case of this research project, the elements of change (at time of writing), are still engaged at local level. However this does not mean that change is sustainable, only that it is still being developed- so it is still a relatively early phase. It is acknowledged in literature (Sarason 1996, Fullan 2013 and Hargreaves and Shirley 2009), that cultural change is needed if educational change is to be successful in the long term. In Fairhill, the challenge is in developing a cultural change in tandem with educational change. However at this point it is too early to discern whether the change as developed through this programme, is sustainable in the long term.

- (x) Change literature remarks on the impact of external influences on teachers' responses to change. As such I am interested in gaining an insight into how this external world influences the research participants in the context of this research study.

Throughout this research project, external influences played a major part in how teachers perceived the change project. Initially, due to their experiences of imposed educational change, teachers were wary of any kind of change initiative, however the more familiar they became with this change programme, the less concerned they became about these kind of external influences. Nevertheless in terms of external conditions like the structures of the education system and the emphasis on terminal examinations, teachers continued throughout the research project to be limited by their perceptions of the

requirements imposed by such structures. They were anxious that the cooperative learning methodologies did not adversely affect their ability to cover the syllabus and were concerned that it did not impact negatively on preparation for terminal examinations. They were also conscious of the fact that these types of methodologies ran counter to traditional practices and it took them some time to reconcile with these new methods.

In commenting on these questions and understanding how they unfolded in the context of the research project, it was very obvious that the lessons of the thesis embodied in the elements of coherence, connectivity and communication came through to influence the conclusions. With these elements in place, teachers had the opportunity to develop their skills and connect with the change initiative in a way that made it likely to succeed. Throughout the process of initiation and implementation they came to understand not only what their role was within the change development, but also acquire a deeper understanding of how they could effect change going forward. They took ownership of the change initiative because they understood it – this clarity of understanding was critical to the project and was crucially supported by the lessons of coherence, connectivity and communication as embodied in the teachers' responses to the central focus of the research questions as suggested above.

In conclusion the teachers' responses to the change initiative were varied and dynamic. There was fluidity in these responses that reflected the many variables at play. The constantly shifting and changing interconnections that were evidenced in the way the teachers spoke about the change situation meant that although change practices were developed and implemented, a discernible pattern of process was difficult to achieve in the context of notions of change. I was interested in recognising patterns that could apply in different change situations and felt that in some respects I managed this especially if the three key messages as outlined above were kept in focus. If these messages of change are accommodated then teachers' responses to a change initiative would most likely be positive.

However as I have outlined above, there is a question mark over the sustainability of a change programme such as this. At stake is the ability of change to sustain longevity and in this regard the notion of institutionalisation (Fullan 2001) was not answered by this thesis. Yes it would be true to say that change occurred in Fairhill and that this change benefitted students, teachers and the school as a whole, but the concerns expressed by teachers towards the end of the research period displayed uncertainty about longer term commitment and engagement. The nature of the comments as expressed by the teachers in the last phase of the research study clearly indicates fragility in the belief they had in the permanency of change. I have mentioned above that as part of the introduction and implementation phase teachers began to develop skills associated with becoming agents of change. However this role was not fully developed in terms of change agent activity as envisaged by Fullan (2001) due to the lack of commitment to pursue educational change as an inextricable part of the culture of the school. Therefore, commitment to the programme was clear, but commitment to the principles of change was less so. Teachers were still cautious of engaging in activity which would remove them from their familiar world. Although they came to view some of the aspects of the system in which they were operating as detrimental to the principles of good cooperative learning practices, they were reluctant to change their approach preferring others (i.e. the system) to change first.

This research study established that teachers, if given the appropriate environment, will embrace change practices and engage willingly in the development of new teaching and learning strategies. It also established the efficacy of the discussion forum in pursuit of this change. However in terms of commitment to sustainable long term change, the teachers remained circumspect. Their experiences of change in the past and the perceived restraints of the system in which they were operating created a reluctance to long term change that needs addressing if change as a holistic initiative is to be successful (by successful I would include its institutionalisation within the organisation). Therefore I would recommend that the commitment to sustainable educational change and improvement be strengthened within

schools. This could be done by developing and applying the principles of the professional learning community in schools which would focus on the clear purpose of student learning, engage teachers in collaborate activity and authentic pedagogy in the classroom and encourage student-based social supports that would affect performance. Teachers would in effect have a collective responsibility for student learning on a school-wide basis (Newmann and Wehlage, 1995).

This study gave me an opportunity to examine change practices that were rooted in practicality and based on sound theoretical principles. The teachers who participated in the study were motivated and skilful in their endeavours to apply these principles of change and so in this respect the change outcomes were very positive. The principles of cooperative learning will continue to be applied in Fairhill Community School and the change organisation that has begun with this thesis will continue to develop so that the pedagogical skills of the teachers and the learning practices of the students can regularly be addressed in an effort to enhance the educational experiences of all in the school.

Bibliography

Adler, P.A. and Adler, P. (1987) *Membership roles in field research*, Sage, London.

Alimo-Metcalfe, B. and Alban-Metcalfe, R. (2001) The development of a new transformational leadership questionnaire. *Journal of Occupational and Organizational Psychology*. 74: 1.

Alvesson, M. and Sköldbberg, K. (2000) *Reflexive methodology: new vistas for qualitative research*. Sage Publications Inc.

Angus, M., and Loudon, W., (1998) Systematic reform in a federal system: the national schools project. In: Hargreaves A. ed. *International Handbook of Educational Change*. Dordrecht: Kluwer Academic Publishers.

Antil, L., Jenkins, J., Wayne, S. and Vadasy, P. (1998) Cooperative learning: prevalence, conceptualizations, and the relation between research and practice. *American Educational Resource Journal*, 35, (3): 419 – 454.

Bailey, J. (2000) Students as clients in a professional/client relationship. *Journal of Management Education*, 24 (3): 353-65.

Ball, D. and Cohen, D. (1999) Developing practice, developing practitioners: Towards a practice based theory of professional education. In L. Darling-Hammond and Sykes, G., (Eds.) *Teaching as the learning profession*. Francisco: Jossey-Bass.

Bandiera, M. and Bruno, C. (2006) Active/cooperative learning in schools. *JBE*, 40 (3): 130-134.

Barbuto, J.E. (2005) Motivation and transactional, charismatic, and transformational leadership: a test of antecedents. *Journal of Leadership and Organizational Studies*, 11 (4): 26-40.

Barnett, A. (2003) *The impact of transformation leadership style of the school principal on school learning environments and selected teacher outcomes: a preliminary report*. Paper presented at NZARE AARE, Auckland, NZ.

Bass, B. (1999) Two decades of research and development in transformational leadership. *European Journal of Work and Organizational Psychology*. 1(8): 9.

Baumgartner, F. and Jones B. (1993) *Agendas and instability in american politics*. Chicago: University of Chicago Press.

Beare, H., Caldwell, B. and Millikan, R. (1989) *Creating an excellent school: some new management techniques*. London: Routledge.

Beatty, B. (2000) Teachers leading their own professional growth: Self-directed reflection and collaboration and changes in perception of self and work in secondary school teachers. *Journal of In-Service Education*, 26 (1): 73-97.

Beatty, B. (2000) *The Emotions of Educational Leadership*. Australian Association for Research in Education Annual Conference, Sydney Australia, Dec. 3-8 2000.

Bennett, B. and Rolheisher, C. (2001) *Beyond monet: the artful science of instructional integration*. Ajax, Ontario, Canada: Bookation Publishers.

Berger, P. L. and Luckmann T. (1966) *Social construction of reality: a treatise in the sociology of knowledge*. Garden City, NY: Anchor Books.

British Educational Research Association (BERA) *Ethical Guidelines for Educational Research 2nd Edition* (2011).

Berman, P. and McLaughlin, M. (1977) *Factors affecting implementation and continuation*. Federal programs supporting educational change. Santa Monica, CA: Rand Corporation.

Bishop, P., and Mulford, B., (1999) When will they ever learn? another failure of centrally-imposed change. *School Leadership and Management*, 19 (2):179-187

Black, S. (1997) Creating community [research report], *American School Board Journal*, 184(6).

Blase, J. and Blase, J.R. (2001) *Empowering teachers: what successful principals do* (2nd ed.). Thousand Oaks, CA: Corwin Press.

Bolman, L. and Deal, T. (1991) *Reframing organizations*. San Francisco: Jossey-Bass.

Bolster, A. (1983) Toward a more effective model of research on teaching. *Harvard Educational Review*, 5(3): 294-398.

Bracket, M., Reyes, M., Rivers, S., Elbertson, N., and Salovey, P. (2012) Assessing teachers' beliefs about social and emotional learning. *Journal of Psychoeducational Assessment*, 30: 219.

Brandon, D.P. and Hollinghead, A.B. (1999) Collaborative learning and computer-supported groups. *Communication Education*, 48 (2):109.

Braybrooke, D. and Lindblom C. (1963) *A strategy of decision: policy evaluation as a social process*. Glencoe: Free Press.

Brewster, C. and Railsback, J. (2003) *Building trusting relationships for school improvement: implications for principals and teachers*. Portland: Northwest Regional Educational Laboratory.

Brookfield, S. (1998) Critically reflective practices. *The Journal of Continuing Education in the Health Profession*, 18:197.

Bryk, A., Sebring, P., Kerbow, D., Rollow, S. and Easton, J. (1998) *Charting chicago school reform*. Boulder: Westview Press.

Bryk, A.S. and Schneider, B. (2002) *Trust in schools: a core resource for improvement*, New York, NY: Russell Sage Foundation.

Bryk, A.S. and Schneider, B. (2003) Trust in schools: a core resource for school reform, *Educational Leadership*, 60(6).

Bryman, A. (2001) *Social research methods*. Oxford: Oxford University Press.

Byrne, D. and Smyth, E. (2010) *No way back? the dynamics of early school leaving* Dublin: The Economic and Social Research Institute in association with The Liffey Press.

Buchs, C., Gilles, I., Dutr vis, M. and Butera, F. (2011) Pressure to cooperate: is positive reward interdependence really needed in cooperative learning? *British Journal of Educational Psychology*, 81:135–146.

Calderon, M. (1999) Teachers learning communities for cooperation in diverse settings. *Theory Into Practice*, 38 (2): 94-99.

Caldwell, B.J. (2010) *Educational Reform and Change in Australia*. Australia: Educational Transformations.

Cheng, W. and Warren, M. (2000) Making a difference: using peers to assess individual students' contributions to a group project', *Teaching in Higher Education*, 5 (2): 243-255.

Cherednichenko, B., Hooley, N., James, W., Kruger, T., Lawson, D., Moore, R., Partridge, J., and Tyson, C., (1999) A developing case study: a collaborative longitudinal experience of school change research. *Australian Educational Researcher*. 26 (3): 57-71.

Chickering, A., & Gamson, Z. (1987) Seven principles of good practice in undergraduate education. *AAHE Bulletin*, 39: 3-7.

Clarke, A. (2001) Characteristics of co-operating teachers. *Canadian Journal of Education* 26 (2): 237-256.

Claxton, G. (2008) *What's the point of school? rediscovering the heart of education*. Oxford: Oneworld publications.

Cohen, E.G., Lotan, R.A., Scarloss, B.A. and Arellano, A.R. (1999) Complex instruction: equity in cooperative learning classrooms. *Theory Into Practice*, 38 (2): 80-86.

Cormier, R., and Oliver, D. (2009) *Professional learning communities: characteristics, principals and teachers*. Annual Meeting of the Louisiana Education Research Association, Lafayette, Louisiana.

Coleman, P. (1998) *Parent, student and teacher collaboration: the power of three*. Thousand Oak, CA: Corwin Press.

Crandall, D. (1983). *People, policies and practices: examining the chain of school improvement*. Andover, MA: The Network.

Cronbach, L.J. (1975) Beyond the two disciplines of scientific psychology. *American Psychologist*, 30(2): 116-127

Crotty, M. (1996) *Phenomenology and nursing research*. Melbourne: Churchill Livingstone.

Crotty, M. (1996) *Doing phenomenology in qualitative research practice in adult education*. Ringwood, Victoria: David Lovell Publishing.

Crowson, R.L. (1989) Managerial ethics in educational administration. *The Rational Choice Approach*. *Urban Education*, 23(4): 412-435.

- Czerniawski, G., Garlick, S., Hudson, T., and Peters. P. (2009) *Listening to learners*. Report, University of East London.
- Darling-Hammond, L. (2000) Teacher quality and student achievement: a review of state policy evidence. *Education Policy Analysis Archives*, 8(1): 1-32.
- Darling-Hammond, L. and Ball, D. (1999) *Teaching for high standard: what policymakers need to know and be able to do*. Philadelphia: CPRE, National Commission on Teaching for America's Future.
- Datnow, A. and Stringfield, S. (2000) Working together for reliable school reform. *Journal of Education for Students Placed at Risk*, 5 (1): 183-204.
- Day, C. (1999) *Developing teachers: the challenge of lifelong learning*. London: Falmer Press.
- Drake, C., Spillane, J. and Hufford-Ackles, K. (2001) Storied identities: teacher learning and subject-matter context. *Journal of Curriculum Studies*, 33 (1): 1-23.
- Denscombe, M. (1998) *The good research guide*. Buckingham, Open University Press.
- Denzin N (1997) *Interpretive ethnography: ethnographic practices for the 21st century*. Thousand Oaks, CA: Sage.
- Denzin, N. (1984) *The research act*. Englewood Cliffs, NJ: Prentice Hall
- Dodd, A. and Konzal, J. (1999) *Making our high schools better*. New York: St. Martin's Press.
- Dornbusch, S. M. and Glasgow, K. L. (1996). 'The structural context of family-school relations'. In: Booth, A. and J. Dunne.(eds.) *Family-school links: how do they affect educational outcomes?* New Jersey: Lawrence Erlbaum Associates Publishers.
- Drudy, S., (Ed). (2009) *Education in ireland: challenge and change*. Dublin: Gill and Macmillan.
- Du Four, R., (2004) What is a professional learning community? *Educational Leadership*, 61 (8): 6-11.
- Duignan, P. (2009) Educational leadership: key challenges and ethical issues. *Curriculum Leadership Journal*, 7(17).

- Earl, L., and Lee, L. (1999) Learning for change: school improvement as capacity building. *Improving schools*, 3(1): 30-38.
- Elmore, R. (2000) *Building a new structure for school leadership*. Washington DC: The Albert Shanker Institute.
- Ellsworth, J. (2000) Surviving change. a survey of educational change models. Syracuse USA: *ERIC Clearing House on Information and Technology*.
- Ely, D. (1990) Conditions that facilitate the implementation of educational technology innovations. *Journal of Research on Computers in Education*, 23 (2): 298-305.
- Epstein, J. (1995) School/family/community partnerships. *Phi Delta Kappan*, 76: 701-712.
- Epstein, J, and Sanders, M. (2000) 'Connecting home, school and community'. In: Hallinan M. ed. *Handbook of the sociology of education* New York: Kluwer/Plenum.
- Evans, R. (1996) *The human side of school change*. San Francisco: Jossey-Bass.
- Fang, Z. (1996) A review on teacher beliefs and practices. *Educational Research*, 38 (1): 47-65.
- Fielding, M., (2001) Students as radical agents of change. *Journal of Educational Change*, 2: 123-141.
- Fielding, M. Moss, P., (2011) Radical education and the common school: a democratic alternative. *Improving Schools* 14 (97).
- Feldman, M. (2004) Resources in emerging structures and the processes of change. *Organization Science* 15(3): 295-309.
- Fineman, S. (Ed). (1993) *Emotion in Organizations*. London: Sage.
- Fletcher, A. (2005) *Meaningful student involvement: guide to students as partners in school change*. Olympia WA. Soundout.org.
- Freire, P. (1970) *Pedagogy of the Oppressed*. New York: Continuum .
- Frost, D., (2000) Teacher-led school improvement: agency and strategy part 1. *Management in education*, 14 (4): 21-24.
- Fullan, M. and Pomfret, A. (1977) Research on curriculum and instruction implementation. *Review of Educational Research*, 47(1): 335-397.

- Fullan, M., and Stiegelbauer, S., (1991) *The new meaning of educational change*. New York: Teachers College Press
- Fullan, M. (1993) *Change forces: probing the depths of educational reform*. London: Falmer Press.
- Fullan, M. (1997) *What's worth fighting for in the principalship?* New York: Teachers College Press.
- Fullan, M., (1998) The meaning of educational change: a quarter of a century of learning. In: Hargreaves A. ed. *International Handbook of Educational Change*. Dordrecht: Kluwer Academic Publishers.
- Fullan, M. (1999) *Change forces: The sequel*. London: Falmer Press.
- Fullan, M. (2001) *The new meaning of educational change*. New York: Teachers College Press.
- Fullan, M. (2001) *Leading in a culture of change*. San Francisco: Jossey- Bass.
- Fullan, M. (2003) *Change forces with a vengeance*: New York: Routledge Falmer.
- Fullan, M. (2009) *Motion leadership: the skinny on becoming change savvy*. Ontario: Corwin Press/School Improvement Network.
- Fullan, M. (2011) *The six secrets of change: What the best leaders do to help their organizations survive and thrive* .San Francisco: Jossey- Bass.
- Fullan, M. (2013) *Motion leadership in action: more skinny on becoming change savvy*. Ontario: Corwin Press/Learning Forward Ontario Principals' Council.
- Gall, M.D., Borg, W.R. and Gall, J.P. (1996) *Education research: an introduction*. New York: Longmann.
- Gallimore, R. and Goldenberg, C. (2001) Analyzing cultural models and settings to connect minority achievement and school improvement research. *Educational Psychologist*, 36 (1): 45-56.
- Gardner, H.(1999) *The disciplined mind*. New York: Simon and Shuster.
- Geijsel, F., Slegers, P., Leithwood, K. and Jantzi, D.,(2003). Transformational leadership effect on teachers' commitment and effort towards school reform. *Journal of Educational Administration*, 41 (3): 228-256.
- Geijsel, F., Slegers, P. and Van den Berg, R. (1999) Transformational leadership and the implementation of large-scale innovation programs. *Journal of Educational Administration*, 37 (4): 309-328.

- George, G., (1995) Physical education through students' eyes and in students' voices: implications for teachers and researchers. *Journal of Teaching in Physical Education*, 14 (4): 478- 482.
- Gillies, R. M. and Boyle, M. (2006) Ten Australian elementary teachers' discourse and reported pedagogical practices during cooperative learning. *The Elementary School Journal*, 106 (5): 429-452.
- Gillies, R.M. (2004) Teachers and students interactions during cooperative and small group learning. *Annual meeting of the American Educational Research Association*, San Diego.
- Giroux, H. (1983) *Theory and resistance in education: pedagogy for the opposition*. London: Heinemann.
- Goetz, J. P. and LeCompte, M. D. (1984) *Ethnology and qualitative design in educational research*. Lexington, MA: D. C. Heath.
- Gold, B., Miles, M. (1981) *Whose school is it, anyway? parent-teacher conflict over an innovative school*. New York: Praeger.
- Gold, B., (1999) Punctuated legitimacy: a theory of educational change. *Teachers College Record*, 101 (2):192-219.
- Goldenberg, C. (2004) *Successful school change: creating settings to improve teaching and learning*. New York: Teachers College Press.
- Goldenberg, C. and Gallimore, R. (1991) Changing teaching takes more than a one shot workshop. *Educational Leadership*: 69: 72.
- Government of Ireland (1999) *School development planning. an introduction for second level schools*. Dublin: Stationery Office
- Gramsci, Antonio. (1971) *Selections from the prison books*, London: Lawrence and Wishart.
- Greene, M. (1993a) Diversity and inclusion: towards a curriculum for human beings. *Teachers College Record*, 95(2): 211-221.
- Greene, M. (1993b) Reflections on post-modernism and education. *Educational Policy*, 7(2): 106-111.
- Gregoire, M. (2003) Is it a challenge or a threat? a dual process model of teacher's cognition and appraisal processes during conceptual change. *Educational Psychology Review*, 15: 147-179.
- Gronn, P. (2008). The future of distributed leadership, *Journal of Educational Administration*, 46 (2): 141-158.

- Guskey, T. (1986) Staff development and the process of teacher change. *Educational Researcher* 15(5): 5-12.
- Guskey, T. (2002) Professional development and teacher change. *Teachers and Teaching: theory and practice* 8: 382-391.
- Gutkin, T. B. and Reynolds, C.R. (Eds.). (2009) *The handbook of school psychology, 4th edition*. NY: John Wiley & Sons.
- Hall, J.A., Rosenthal, R., Archer, D., Di Matteo, M.R. and Rogers, P.L. (2001) Nonverbal skills in the classroom. *Theory into Practice*, 16: 162–166.
- Hallinger, P. (2003) Leading educational change: reflections on the practice of instructional and transformational leadership. *Cambridge Journal of Education*, 33 (3): 329.
- Hammersley, M. and Paul Atkinson, P. (2007) *Ethnography: principles in practice*. London: Routledge.
- Hammersley, M. (2006) Ethnography: problems and prospects. *Ethnography and Education* 1(1): 3-14.
- Hancock, D. (2004) Cooperative learning and peer orientation effects on motivation and achievement. *Journal of Educational Research*, 97 (3): 159-166.
- Hargreaves, A. (1991) Curriculum Reform and the Teacher. *The Curriculum Journal*, 2(3): 249-258.
- Hargreaves, A., (1997) Cultures of teaching and educational change. In: Fullan, M., ed. *The Challenge of School Change: A Collection of Articles*. Cheltenham: Hawker Brown Education.
- Hargreaves, A. (1998) 'The Emotions of Teaching and Educational Change'. In: Hargreaves A. ed. *International Handbook of Educational Change*. Dordrecht: Kluwer Academic Publishers.
- Hargreaves, A. and Goodson, I. (2006) Educational change over time? the sustainability and non-sustainability of three decades of secondary school change and continuity. *Educational Administration Quarterly February* 42: 3-4.
- Hargreaves, A. (2009) 'The fourth way of change: towards an age of inspiration and sustainability'. In: Hargreaves, A. ed. *Change*. Bloomington, IN: Solution Tree.
- Hargreaves, A. and Shirley, D. (2009) *The fourth way: the inspiring future for educational change*. California: Sage.
- Hargreaves, A. (1994) *Changing times changing teachers: teachers' work and culture in the postmodern era*. London: Cassell. New York: Teachers College Press.

- Hargreaves, A., Liebermann, A., Fullan, M., and Hopkins, D. (Eds). (1998) *International handbook of educational change, vol. 1*. Dordrecht: Kluwer Academic Publishers.
- Harootunian, B. and Yargar, G. P. (1980) *Teachers' conceptions of their own success*. Annual Meeting of the American Educational Research Association, Boston, MA, April.
- Harris, A., and Hopkins D., (1999) Review article: teaching learning and the challenge of educational reform. *School Effectiveness and School Improvement*, 10 (2): 257-267.
- Hasan, A. Hartog, P. (2010) How do development paradigms influence education policy? *Journal of Educational Change*, 11.
- Hattan, R., and McInerney, P., (2000) Proper teacher training holds the answers to "whole school reform." *Educational Review*, 4 (2): 14.
- Hiebert, J., Gallimore, R., and Stigler, J. (2002) A knowledge base for the teaching profession: what would it look like and how can we get one? *Educational Researcher*, 31(5): 3–15.
- Hill, W.F. (2002) *Learning: a survey of psychological interpretation*. Boston, MA: Allyn and Bacon.
- Hoban, G. (2002) *Teacher learning for educational change*. Buckingham: Open University Press.
- Hoyle, E. and Wallace, M. (2007) Educational reform: an ironic perspective. *Educational Management, Administration and Leadership*, 35 (1): 9-25.
- Huberman, M. (1988) Teachers careers and school improvement. *Journal of Curriculum Studies* 20 (2): 119-132.
- Husserl, E (1913) *Ideen au einer reinen phänomenologie und phänomenologischen philosophie* translated as *Ideas general introduction to pure phenomenology*. New York: Macmillan.
- Johnson, D.W. and Johnson R.T. (1999) Making cooperative learning work. *Theory Into Practice*, 38 (2): 67-73.
- Johnson, D.W. and Johnson R.T. (1989) *Cooperation and competition: theory and research*. Edina MN. Interaction Book Co.
- Johnson, D.W. (2009) *Reaching out: interpersonal effectiveness and self-actualization*. Boston: Allyn and Bacon.
- Johnson, D.W., and Johnson, F. (2009) *Joining to-gether: group theory and group skills*. Boston: Allyn and Bacon.

- Joiner, C. (1987) *Leadership; management; organizational change*. Cambridge, Mass: Ballinger Publishers.
- Judge, T.A. and Piccolo, R.F. (2004) Transformational and transactional leadership: a meta-analytic test of their relative validity. *Journal of Applied Psychology*, 89 (5): 755.
- Kagan, D. M. (1992) Implications of research on teacher beliefs. *Educational Psychologist*, 27: 65–90.
- Kagan, S. (1989) *Cooperative learning: Resources for teachers*. San Juan , CA: Capistrano.
- Kaniuka, T. S. (2012) Toward an understanding of how teachers change during school reform: considerations for leadership and school improvement. *Journal of Educational Change*, 13: 327- 346.
- Kanter, R. (2011) Innovation: the classic traps. *Harvard Business Review on Inspiring and Executing Innovation*. Harvard Business Press.
- Kaye, M., (1994) Implementing change in Australian tertiary education systems: reflections on some practical strategies. *Unicorn*, 20 (1): 52-61
- Kelley, C., Heneman. H. and Milanowski, A. (2002) Teacher motivation and school-based performance awards. *Educational Administration Quarterly*, 38: 372.
- Kelley, C. and Finnigan, K. (2003) The effects of organizational context on teacher expectancy. *Educational Administration Quarterly*, 39: 603.
- Kilbourn B. (2006) The qualitative doctoral dissertation proposal; *Teachers College Record*, 108: 529-576.
- Kohn, A. (1993) Choices for children: why and how to let students decide. *Phi Delta Kappan*, 75 (1): 8-16.
- Kohn, A. (1992) resistance to cooperative learning: making sense of its deletion and dilution. *Journal of Education*, 174 (2): 38 - 56
- Kruse, S. D. and Louis, K. S. (2009) *Building strong school cultures: a guide to leading change*. Thousand Oaks CA: Corwin Press.
- Larrivee, B. (2000) Transforming teaching practice: becoming the critically reflective teacher. *International and Multi-disciplinary Perspectives*, 1 (3): 293.
- Lather, P. (1986) Research as praxis. *Harvard Educational Review*, 56(3): 257-77.

- Lauriala, A. (1992) The impact of innovative pedagogy on teaching thinking and action: a case study of an in-service course for teachers in integrated teaching. *Teaching and Teacher Education*, 8 (5/6): 523-536.
- Lauermann, F. and Karabenick, S. A. (2013) The meaning and measure of teachers' sense of responsibility for student outcomes. *Teaching and Teacher Education*, 30: 13-26.
- Lee, D., (2001) School change from the "bottom up" –how real is the prospect? *Literacy Learning: the Middle Years*, 9 (1): 141-149
- Leithwood, K. and Sharratt, L. (2000) 'Conditions fostering organizational learning in schools'. In: Leithwood, K. ed. *Understanding schools as intelligent systems*. Greenwich, CT: JAI Press.
- Leithwood, K., (Ed.) (2000) *Understanding schools as intelligent systems*. Stamford, CT: JAI Press.
- Leithwood, K., Jantzi, D. and Steinback, R. (1999) *Changing leadership for changing times*. Buckingham, UK: Open University Press.
- Levin, T., and Wadmany, R. (2005) Changes in educational beliefs and classroom practices of teachers and students in rich technology-based classrooms. *Technology, Pedagogy and Education*, 14 (3): 281-307.
- Liebermann, A., (1998) The growth of educational change as a field of study: understanding its roots and branches. In: Hargreaves A. ed. *International Handbook of Educational Change*. Dordrecht: Kluwer Academic Publishers.
- Lichtman, M. (2010) *Qualitative research in education: a user's guide*. Los Angeles: Sage.
- Lin E. (2006) Cooperative learning in the science classroom: a new learning model for a new year. *The Science Teacher Summer*, pp. 34-39.
- Lincoln, Y.S. and Guba, E.G. (1985) *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications, Inc.
- Liontos, L. (1992) Transformational leadership. *Clearinghouse on Educational Management*.
- Lipman, P., (1998) Conclusion: restructuring in social context. In: Lipman, P., ed. In: *Race, Class, and Power in School Restructuring*. New York: State University of New York Press.
- Lortie, D. C. (1975) *Schoolteacher: a sociological study*. Chicago: University of Chicago Press.

- McLaren, P. (2007) *Life in schools: an introduction to critical pedagogy in the foundations of education*. Boston: Pearson.
- McLaughlin, M. and Talbert J. (2001) *Professional communities and the work of high school teaching*. Chicago: University of Chicago Press.
- MacDonald, D. (1991) Teacher attrition: a review of literature. *Teaching and Teacher Education* 15 (8): 835-848.
- Malinowski B. (1922) *Argonauts of the western pacific*. New York: E.P. Dutton.
- Marris, P. (1975) *Loss and Change*. New York: Anchor Press/Doubleday.
- Marshall, C. and Rossman, G. (1989) *Designing qualitative research*. Newbury Park, CA: Sage Publications.
- Matchett, N.J. (2009) Learning, critical thinking and character techniques to cultivate ethical deliberation: *Public Integrity*, 12 (1): 25–38.
- Mayrowetz, D. (2008) Making sense of distributed leadership: exploring the multiple usages of the concept in the field. *Educational Administration Quarterly*, 44 (3): 424-435.
- Merriam, S.B. (1988) *Case study research in education: a qualitative approach*. San Francisco: Jossey-Bass.
- Mikami, A. Y. and Hinshaw, S. P. (2006) Resilient adolescent adjustment among girls: buffers of childhood peer rejection and attention-deficit/hyperactivity disorder. *Journal of Abnormal Child Psychology*, 26: 823-837.
- Miles, B., (1998) Finding keys to school change: a 40-year odyssey. In: Hargreaves A. ed. *International Handbook of Educational Change*. Dordrecht: Kluwer Academic Publishers.
- Miller, W. and Crabtree, B. (Eds.). (1999) *Doing qualitative research in primary care: multiple strategies*. Thousand Oaks CA: Sage Publications.
- Mitra, D. L. (2008) *Student voice in school reform: building youth-adult partnerships that strengthen schools and empower youth*. Albany, NY: State University of New York Press.
- Morgan D.L. (1997) *Focus groups as qualitative research*. London: Sage.
- Morgan, D.L. and Kreuger, R.A. (1993) 'When to use focus groups and why' . In: Morgan, D.L. ed. *Successful Focus Groups*. London: Sage.
- Mortimore, P., Sammons, P., Stoll, L., Lewis, D. and Ecob, R. (1988) *School matters: the junior years*. Somerset UK: Open Books.

- Mruck, K. and Breuer, F. (2003) Subjectivity and reflexivity in qualitative research. *Qualitative Social Research*, 4 (2): 17.
- Muijs, D. and Harris, A. (2006) Team leadership in action: three case studies of contrasting schools. *Educational Management, Administration and Leadership*, 35 (1): 111-134.
- Nespor, J. (1987) *The role of beliefs in the practice of teaching*. *Journal of Curriculum Studies*. 19 (4): 317-328.
- Newman, F. and Wehlage, G. (1995) *Successful school restructuring*. Madison, WI: Center on Organization and the Restructuring of Schools.
- Newmann, F., King, B. and Young, P. (2000) *Professional development that addresses school capacity: lessons from urban elementary schools*. Annual meeting of the American Educational Research Association.
- Nias J. (1996) Thinking about feeling: the emotions in teaching. *Cambridge Journal of Education*, 26 (3): 293-306.
- Oakes, J., Quartz, K., Ryan, S., and Lipton, M. (1999) *Becoming good american schools*. San Francisco, CA: Jossey-Bass.
- Pajares, F. (1992) Teachers' beliefs and educational research: cleaning up a messy construct. *Review of Educational Research*, 62: 307–332.
- Parsons, C. and Fidler, B. (2005) A new theory of educational change: punctuated equilibrium: the case of the internationalisation of higher education institutions. *British Journal of Educational Studies*: 53(4): 447-465.
- Peterson, S.E. and Miller, J.A. (2004) Comparing the quality of student experiences during cooperative learning and large group instruction. *Journal of Educational Research*, 97 (3): 123-133.
- Phuong-Mai, N., Terlouw, C., Pilota, A. and Elliott, J. (2009) Cooperative learning that features a culturally appropriate pedagogy. *British Educational Research Journal*, 35, (6): 857–875.
- Popper, K. (1972) *Objective knowledge: an evolutionary approach*. USA: Oxford University Press.
- Prawat, R. (1990) *Changing schools by changing teachers' beliefs about teaching and learning*. Lansing: Michigan State University.
- Randall, V. (1999) Cooperative Learning: Abused and Overused? *The Education Digest*, 65 (2): 29-32.
- Reid, A., (1999) The national educational agenda and its curriculum effects. In: Johnson, B., and Reid, A., eds. *Contesting the Curriculum*. Katoomba: Social Science Press.

- Richardson V. (Ed.). (2001) *Handbook of research on teaching*. Washington, DC: American Educational Researcher.
- Robinson, V.M. (2007) *School leadership and student outcomes: identifying what works and why*. Auckland, New Zealand: ACEL William Walker Oration.
- Rogers, E. (1995) *Diffusion of innovation*. New York, NY: The Free Press.
- Rohrkemper, M. and Corno, L. (1988) Success and failure on classroom tasks: adaptive learning and classroom teaching. *Elementary School Journal*, 88: 296–312.
- Rosaldo, R. (1993) *Culture and truth: the remaking of social analysis*. Boston, Mass; Beacon Press.
- Rose, N. (1985) *The psychological complex: psychology, politics and society in england 1869–1939*. London: Routledge and Kegan Paul.
- Rosenholtz, S. (1989) *Teachers' workplace: the social organization of schools*. New York: Longmann.
- Rosenthal, R. and Jacobson, L. (1968) *Pygmalion in the classroom: teacher expectations and pupils' intellectual development*. New York: Holt, Rinehart, and Winston.
- Rossmann, G. B. and Rallis, S. F. (2003) *Learning in the field. an introduction to qualitative research*. Thousand Oaks, CA: Sage.
- Rudd, R. D. (2007) Defining Critical Thinking. *Techniques*, 82(7): 46-49.
- Rudduck, J., Chaplain, R. and Wallace, G. (1996) *School improvement: what can pupils tell us?* London: David Fulton Publishers.
- Sanders, M., Epstein, J. and Connors- Tadros, L. (1992) *Family partnerships with high school: the parents perspective*. Report No. 92. Center for Research on the Education of Students Placed At Risk.
- Sapon-Shevin, M. (1994) Cooperative learning and middle schools: what would it take to really do it right? *Theory Into Practice*, 33 (3): 183-190.
- Sarason, S. (1996) *Revisiting the culture of school and the problem of change*. New York: Teachers College Press.
- Saunders, R. (2013) The role of teacher emotions in change: experiences, patterns and implications for professional development. *Journal of Educational Change*. 14 (3): 303 – 333.
- Schön, D. (1983) *The Reflective Practitioner, How Professionals Think In Action*, USA: Basic Books.

- Seaver, W. (1973) Effects of naturally induced teacher expectancies. *Journal of Personality and Social Psychology*, 28 (3): 333-342.
- Sebring, P. and Bryk, A. (1998) *School leadership and the bottom line in Chicago*. Chicago: University of Chicago.
- Senge, P. (1990) *The fifth discipline*. New York: Doubleday.
- Shavelson, R. and Stern P. (1981) Research on teachers' pedagogical thoughts, judgements, decisions, and behaviour. *Review of Educational Research*, 51(4): 455-498.
- Siegel, C. (2005) Implementing a research-based model of cooperative learning. *The Journal of Educational Research*, 98 (6): 339.
- Sergiovanni, T. (1996) *Leadership for the schoolhouse: how is it different? why is it important?* San Francisco, USA: Jossey Bass.
- Simons, H. (2009) *Case study research in practice*. London: Sage.
- Singer, A. and Pezone, M. (2003) Education for social change: from theory to practice. *Louisville Educational Journal*, 5: 2.
- Simic, I. (1998) Transformational leadership - the key to successful management of transformational organizational changes. *Facta Universitas*, 1 (6): 49.
- Slavin, R.E. (1990) *Cooperative learning*. Massachusetts, USA: Allyn and Bacon.
- Slavin, R.E. (1991) Synthesis of research on cooperative learning. *Educational Leadership*, 48: 71-82.
- Slavin R.E. (1996) Research for the future: research on cooperative learning and achievement: what we know, what we need to know. *Contemporary Educational Psychology*, 21:43-69.
- Slavin, R.E., (1999) Comprehensive approaches to cooperative learning. *Theory Into Practice*, 38 (2): 74-79.
- Smitt, B., (2003) *The emotional state of teachers during educational policy change*. European Conference on Educational Research, Hamburg, Germany (17-20 September).
- Spillane, J., Reiser, B. and Reimer, T. (2002) Policy implementation and cognition: reframing and refocusing implementation research. *Review of Educational Research* 72: 387.
- Stake, R. E. (1995) *The art of case study research*. Thousand Oaks, CA: Sage.

- Stearns, C.J. (1999) A middle school venture into cooperative learning: success and dilemma. *Theory Into Practice*, 38 (2): 100-104.
- Stein, M.K. and Wang, M. (1988) Teacher development and school improvement: the process of teacher change. *Teaching and Teacher Education* 4(2): 171-187.
- Stigler, J. and Hiebert, J. (1990) *The teaching gap*. New York: The Free Press.
- Stoll, L. and Fink, D. (1996) *Changing our schools*. Buckingham, UK: Open University Press.
- Stoll, L. and Fink, D. (1996) *Changing our schools: linking school effectiveness and school improvement (changing education)*. Buckingham: Open University Press.
- Stolp, S. (1994) Leadership for School Culture. *ERIC Digest, Number 91*.
- Stolp, S, and. Smith S. (1994) School culture and climate: the role of the leader. *OSSC Bulletin. Eugene: Oregon School Study Council*.
- Strom, P.S. and Strom, R.D. (2011) Teamwork skills assessment for cooperative learning. educational research and evaluation: *An International Journal on Theory and Practice*, 17 (4): 233-25.
- Sutton, R. E. and Wheatley, K. F. (2003) Teachers' emotions and teaching: a review of the literature and directions for future research. *Educational Psychology Review*. 15: 327–358.
- Sutton, R., Mudrey-Camino, R. and Knight, C. (2009) Teachers' emotion regulation and classroom management. *Theory into Practice* 48: 130-137.
- Talbert, J. (2010) 'Professional learning communities at the crossroads: how systems hinder or engender change'. In: Hargreaves A. *et al.* eds. *Second International Handbook of Educational Change*. Thousand Oaks CA: Springer International Handbooks of Education.
- Timperley, H.S. and Parr, J.M. (2005) Theory competition and the process of change. *Journal of Educational Change*, 6(3): 227-252.
- Towndrow, P., Silver, R. and Albright, J. (2010) Setting expectations for educational innovations. *Journal of Educational Change*, 11 (4): 425-455.
- Tschannen-Moran, M., and Hoy, W.K. (1998) Trust in schools: a conceptual and empirical analysis. *Journal of Educational Administration*, 36(3): 4.

- Tschannen-Moran, M. (2004) *Trust matters: leadership for successful schools*. San Francisco: Jossey Bass.
- Tuohy, D. (1999) *The inner world of teaching: exploring assumptions which promote change and development*. London: Falmer Press.
- Tuohy, D. (2008) *School leadership and strategic planning*. Dublin: Spell Publishing.
- Van den Berg, R. (2002) Teachers' meaning regarding educational practice. *Review of Educational Research* 72 (4): 577-625.
- Van Maanen, M. (1990) *Researching lived experience: human science for action sensitive Pedagogy*. Albany, New York: State university of New York Press.
- Van Maanen, M. and Levering, B. (1996) *Childhood's secrets: intimacy, privacy and the self reconsidered*. New York: Teachers College Press.
- Vedder, P. and Veendrick, A.M. (2003) The Role of the Task and Reward Structure in Cooperative Learning. *Scandinavian Journal of Educational Research*, 47(5): 529-542.
- Van Veen, K. and Lasky, S. (2005) Emotions as a lens to explore teacher identity and change: different theoretical approaches. *Teaching and Teacher Education*, 21 (8): 895–898.
- Vygotsky, L. S. (1978) *Mind in society: the development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wallace, J., and Wildy, H., (1994) The national schools project: school site experiences at restructuring. *Unicorn*, 20 (1): 63-72.
- Waugh R., (2000) Towards a model of teacher receptivity to planned system-wide educational change in a centrally controlled system. *Journal of Educational Administration*, 30 (4): 350-367
- Webb N.M. (1997) Assessing students in small collaborative groups. *Theory Into Practice*, 36 (4): 205-213.
- Webb N, Mastergeorge, A. (2003) The Development of student's learning in peer-directed small groups. *Cognition and Instruction*, 21 (4): 361-428.
- Wiegmann, D., Dansereau, D. and Patterson M. (1992) Cooperative learning: effects of role playing and ability on performance .*The Journal of Experimental Education*, 60 (2): 109-116.
- Williams, P. and Sheridan S. (2010): Conditions for collaborative learning and constructive competition in school, *Educational Research*, 52 (4): 335-350.

Winslow, E. K. and Solomon, G.T. (1993) Entrepreneurs: architects of innovation, paradigm pioneers and change. *The Journal of Creative Behaviour*, 27(2): 75-88.

Woods P. (1996) *Researching the art of teaching: ethnography for educational use*. London :Routledge.

Yin. R K (2009) *Case study research: design and methods*. California: SAGE Publications.

Zental, S.S., Kuester, D.A. and Craig, B.A. (2011) Social behaviour in cooperative groups: students at risk for ADHD and their peers. *The Journal of Educational Research*, 104: 28–41.

Appendices

Appendix One

Dear Colleague

I am undertaking a PhD thesis with the National University of Ireland- Galway. The thesis is concerned with teachers' responses to educational change. In order to examine these responses a change programme has been put in place in the school. This change programme - cooperative learning - is a group based teaching methodology that specifically develops skills in the areas of critical thinking and self-directed learning. The period of the study will be the academic year 2011.

Participants in the study are expected to implement cooperative learning with targeted classes for the duration of this academic year. Participants are also invited to join a focus group study group to discuss issues around the implementation of the programme. These study groups will take place at lunch times or any other convenient time as decided by the group. The discussions will be recorded using audio equipment.

At all times the participants integrity will be protected. All information gathered is strictly confidential and any transcriptions of thoughts and opinions will be given to the participant for editing. All names used in the project will be pseudonyms as will the name of the school. There will be no identifying characteristics in the project that would lead to the schools of the staff being recognised.

The focus group forum is an opportunity to collect data and each participant will have an opportunity to express their opinions, actions, strategies and any other issues as might arise. These meetings will normally last thirty minutes depending on the group and each meeting will have a topic to discuss. This topic will either be circulated to the participant prior to the meeting.

If you are willing to participate in this research study please sign below.

Frank Chambers

I _____ agree to participate in this research study. I expect the integrity of my character to be protected at all times. I understand that confidentiality will be maintained.

Signed _____

Date _____

Appendix Two

Staff Questionnaire – December 2004

Please circle your answer or use space provided. Confidentiality is assured

1. What is morale like in the school?

Very High High OK Low Very Low

Comment _____

2. What are your expectations in terms of the future of the school?

3. How does the staff get on with each other?

4. What is morale like in the main student/parent body?

5. What do the students expect to gain from their time in the school?

6. What do you expect of me as school leader?

7. What do you expect from the students?

8. How would you improve the schools services in terms of the students and parents?

9. What school planning have you engaged in in the last two years?

10. Do you have any further suggestions or comments?

Thank you for your cooperation

Appendix Three

Workshop One/Two

Five Basic Elements

1. Positive Interdependence
2. Face-to-Face Interaction
3. Individual Accountability
4. Interpersonal and Small Group Skills
5. Group Processes

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Positive Interdependence

This refers to students working together in supportive (positive) ways and being accountable and caring for one another. How the groups are chosen is going to be key to achieving this goal. The teacher will play a crucial part by applying her knowledge of the students in a way that allows for workable interactions.

Ways To Ensure Positive Interdependence

- The group has only one pencil, paper, book, or other resource
- One paper is written by the group
- A task is divided into jobs and can't be finished unless all help
- Pass one paper around the group on which each member must write a section
- Jigsaw - each person learns a topic and then teaches it to the group
- A reward (e.g. bonus points) if everyone in the group succeeds

Face-to-Face Interaction

This refers to the setting up of the group environment which allows for optimum student interaction and dialogue. This means the need to be sitting in groups of between 2 and 4 and close enough to one another to easily hear each others voices and see each others faces. A square or circle is the most appropriate shape for a group layout. The larger the group the easier it is for members to hide.

Individual Accountability

This is crucial to successful cooperative learning because in order for the group to work, each student is responsible for her own learning. She must be willing to support and encourage the learning of others. If a student can hide or hitchhike off the efforts of others or take over and do all the work, then the group will not function effectively.

Ways To Ensure Individual Accountability

- Students do the work before bringing it to the group
- One student is chosen at random and questioned on the material the group has studied
- Everyone writes a paper; the group certifies the accuracy of all their papers; the teacher chooses only one paper to grade
- Students receive bonus points if all do well individually
- Teacher observes students taking turns orally rehearsing information

Interpersonal and Small Group Skills

This element relies on collaboration and refers to the social, communication and critical thinking skills that student needs to work effectively in groups. Developing these skills is crucial for effective student learning. Being able to impart information between each other in the group will probably need to be learned.

Ways To Ensure Interpersonal and Small-Group Skills

- Students being on time for group meetings and teacher starts them on time
- Students listening to others and not being so busy rehearsing what they are going to say that they miss other group members' points and ideas
- Students must not close the road to mutual learning by interrupting or using language that can be regarded as a personal attack
- Everyone has to have an opportunity to speak
- Teacher must not suppress conflict, but control and discipline it

The Role of the Teacher

The role of the teacher is very important in cooperative learning. To have an effective cooperative learning group teachers must know their students well. Grouping of students can be a difficult process and must be decided with care. Teachers must consider the different learning skills, cultural background, personalities, and even gender when arranging cooperative groups. Much time is devoted to preparing the lesson for cooperative learning. However, teachers fade into the background and become a coach, facilitator or sometimes a spectator after the lesson is implemented. Teachers who set up a good cooperative lesson teach children to teach themselves and each other. Students learn from their peers and become less dependent on the teacher for help.

Group Processing

This refers to reflection and assessing the groups efforts both in terms of their academic and collaborative interaction. This is very important because without it the group would not develop as effectively over time which negatively impacts social and academic learning.

Ways To Ensure Group Processing

- Group members describe each other's helpful and unhelpful behaviours and actions
- As a group, they make decisions about which behaviours to continue and which behaviours to change

The Role of the Teacher

With cooperative learning techniques, the role of the teacher changes. The ownership of teaching and learning is shared by groups of students, and is no longer the sole responsibility of the teacher. The authority of setting goals, assessing learning, and facilitating learning is also shared by all.

The Role of the Student

Students have more opportunities to actively participate in their learning, question and challenge each other, share and discuss their ideas, and internalize their learning. Along with improving academic learning, cooperative learning helps students engage in thoughtful discourse and examine different perspectives. It has also been proven to increase students' self-esteem, motivation and empathy. However this is not an opportunity for students to freely select what they learn - cooperative learning is about how they learn not what they learn.

Difficulties associated with Cooperative Learning

- Maintaining Discipline
- Noise
- Room Size
- Weaker students being carried by stronger ones
- Time Issues - constantly being on top of time

Some Web Sites

- <http://www.teachervision.fen.com/pro-dev/cooperative-learning/48531.html#ixzz1Wt8QM5EF>
- <http://istudy.psu.edu/FirstYearModules/CooperativeLearn/CoopLearnInfo.htm>
- <http://groups.physics.umn.edu/physed/Research/CGPS/FAQcps.html>
- <http://edtech.kennesaw.edu/intech/cooperativelarning.htm>

Workshop Three

What is Cooperative Learning?

- It is a teaching strategy in which mixed ability students come together in small groups to improve their understanding of a subject.
- It differs from normal group work in that each member has a responsibility to learn what is taught and the group success lies in this collective responsibility.
- You as the teacher are always in control of the subject matter. This is not an opportunity for students to freely express themselves. It is an opportunity for them to learn to work together.

Why use Cooperative Learning Techniques? – The Theory (cont.)

- There are 3 basic ways in which students interact.
- They can **COMPETE** to see who is the best.
 - They can work **INDIVIDUALLY** to achieve their goals.
 - They can work **COOPERATIVELY** with a vested interest in each others learning as well as their own.

So what is not a Cooperative Learning Group?

A group of students sitting at a table doing their own work but free to talk to each other while they work is not a structured cooperative learning group because there is no interdependence. Likewise having a more able student teaching a less able student lacks interdependence.

Similarly a group of students who have been assigned a to do a report where only one student cares, does all the work and the others get a free ride is not a cooperative learning group.

In Practice - 2

Assigning Students to their Groups

Heterogeneous groups tend to be more effective than homogeneous. The power of the groups come from discussion, explanation, justification and shared resolution on the material being learned. Quick consensus without discussion does not enhance learning as effectively as arguing out the issues.

What is the aim of Cooperative Learning Groups?

- Strive for mutual benefit as a group.
- Gain from each others efforts.
- Sink or swim together as the group share a common fate.
- One performance affects all performances.
- Develop a sense of pride in joint achievements

Why use Cooperative Learning Techniques? –The Theory(cont.)

Competitiveness is predominant in Western education practice followed by individualism. The least popular technique is cooperative learning. However research has shown that cooperative interaction is more effective than the other two methods of curriculum delivery if structured properly and where there are group goals AND individual accountability

So what is a Cooperative Learning Group?

- A cooperative group has a sense of individual accountability that means they all need to know the material.
- A cooperative group has to be structured and managed by the teacher.
- A cooperative group develops through practicing social, intellectual and emotional interaction techniques.

In Practice - 3

Arranging the Classroom

Group members need to be close and facing each other and the teacher needs to have clear access to all groups. Each group needs to see their material relatively easily.

Why use Cooperative Learning Techniques? – The Theory

How students interact with each other is often neglected. Teachers tend to spend most of their time arranging interactions between the student and the material and the student and themselves. However research has shown that careful attention to student-student interactions will enhance the learning process, foster positive student feelings about the school and develop self esteem.

So Why use Cooperative Learning Techniques?

- Promotes student learning and academic achievement.
- Increases student retention.
- Enhances student satisfaction with their learning.
- Develops oral communication.
- Develops social skills.
- Promotes self esteem.
- Promotes positive cultural relations.

In Practice - 1

Selecting group sizes

This depends on the size of the classroom and the resources at your disposal. It also depends on the students' cooperative skills (the less skilful the smaller the group), the amount of time available (again the shorter the time the smaller the group) and the nature of the task.

Cooperative Learning Ideas

- Jigsaw – Each group member is assigned some unique material to learn and then teach to her group members. To help in the learning students across the class working on the same material get together to decide what is important and how to teach it. The members then rejoin their groups and teach the material. Testing or assessment follows.
- Think-Pair-Share – 3 step approach; a. individuals think quietly about a question posed, b. individuals pair up and exchange ideas, c. pairs share their responses with other pairs, team or entire group.

<h3>Cooperative Learning Ideas</h3> <ul style="list-style-type: none"> • Three Step Interview – Each team member chooses another member to be a partner. 1st step, individuals interview their partners by asking clarifying questions. 2nd step, roles reversed. 3rd step, members share their partners responses with the team. • Three minute review – Teacher stops any time during the lecture/discussion and gives teams three minutes to review what has been said, ask clarifying questions or answer questions. 	<h3>Cooperative Learning Ideas</h3> <ul style="list-style-type: none"> • Round Robin Brainstorming. Class is divided into small groups (about 4) with one person appointed as recorder. A question is posed with many answers and the students are given time to think about the answer. After the “think-time” members share their responses with each other round robin style. The recorder writes down the answers of the group members. The person to the right of the recorder starts and each person in the group in order gives an answer until time is called. 	<h3>Summary</h3> <ul style="list-style-type: none"> • Cooperative Learning is a powerful tool for curriculum delivery. • It only works when the groups have mutual interdependence. • It depends on meticulous teacher planning and organisation. • Individual work i.e. tests/assessments/homework, reinforces the process (and vice-versa). • It improves classroom management and discipline. • Improves student interactions and allows for better retention of the subject matter.
<h3>So what's in it for you?</h3> <ul style="list-style-type: none"> • An opportunity to enhance the learning in the class. • Facilitate good discipline practices. • Add another aspect to you tool box of teaching techniques. • The opportunity to formalise support groups for pedagogical practice. • Develop peer mentoring strategies. • Do something different! 	<h3>So what's in it for me?</h3> <ul style="list-style-type: none"> • It allows me to continue the process of change in the school. • Gives me the opportunity to become involved in the learning in the school. • Allows me to gather data for my PhD • It focuses the vision of making this school the best it can be (which it is but we have to keep working at it !!) 	

Workshop Four/Five

<h3>The Pros and Cons of Cooperative Learning</h3>	<h3>The Pros</h3> <ul style="list-style-type: none"> • Academic Achievement • Self Esteem • Empathy • Social Skills • Class Climate • Responsibility • Diversity Skills • Higher Level Thinking Skills 	<h3>The Pros</h3> <ul style="list-style-type: none"> • Individual Accountability • Equal Participation • Increased Participation • Social Orientation • Learning Orientation • Self-Knowledge and Self-Realisation • Work Place Skills 	<h3>The Cons</h3> <ul style="list-style-type: none"> • Lack of Social Skills • Group Grades • Lack of Diversity Skills • Avoidance of Failure • Team Competition • Within Class Tracking • Complex Cooperative Learning Lesson Plans • Special Materials
<h3>The Cons</h3> <ul style="list-style-type: none"> • Parent Concerns • Dependency • Lack of Management Strategies • Off Task Behaviour • Feeling Used; Being Used 	<h3>Tips for Success with Cooperative Learning</h3> <ul style="list-style-type: none"> • Do not assume social skills from students; carefully structure for their acquisition • Do not allow interaction which exceeds your management methodology • Create the will to work together (via team building and class building) before moving to academic tasks • Begin with highly structured and brief cooperative tasks and move slowly towards unstructured and longer projects 	<h3>Tips for Success with Cooperative Learning</h3> <ul style="list-style-type: none"> • When you are ready for academic tasks, begin with tasks which are well within the capacity of even the weakest achiever • Do not allow unstructured interaction until students have acquired both the will and the skills to work together • Don't try to reinvent the wheel: begin with proven structured student interaction strategies • Take it slow! Make it easy on yourself and your students. Learn one new strategy well before attempting the next one 	<h3>Class Activity Techniques</h3>

Jigsaw

Groups with 4/5 students are set up. Each group member is assigned some unique material to learn and then to teach to her group members. To help in the learning students across the class working on the same sub-section get together to decide what is important and how to teach it. After practice in these "expert" groups the original groups reform and students teach each other. Tests or assessment follows.

Think-Pair-Share

This involves a three step cooperative structure. During the first step individuals think silently about a question posed by the instructor. Individuals pair up during the second step and exchange thoughts. In the third step, the pairs share their responses with other pairs, other teams, or the entire group.

Three-Step Interview #1

Each member of a team chooses another member to be a partner. During the first step, individuals interview their partners by asking clarifying questions. During the second step partners reverse the roles. For the final step, members share their partner's response with the team.

Three Step Interview #2

The class forms into groups of 3 with each student being assigned a letter. A= interviewer, B= interviewee, C= reporter. The material has been presented and this is an opportunity to check for understanding. It also encourages students to share their thinking, ask questions and take notes.

RoundRobin Brainstorming

The class is divided into small groups (4 to 6) with one person appointed as the recorder. A question is posed with many answers and students are given time to think about answers. After the "think time," members of the team share responses with one another round robin style. The recorder writes down the answers of the group members. The person next to the recorder starts and each person in the group in order gives an answer until time is called.

Three-minute review

Teachers stop any time during a lecture or discussion and give teams three minutes to review what has been said, ask clarifying questions or answer questions.

Numbered Heads Together

A team of four is established. Each member is given a number (i.e. 1, 2, 3, 4). Questions are asked of the group. Groups work together to answer the question so that all can verbally answer the question. Teacher calls out a number (i.e.2) and each 2 is asked to give the answer.

Team-Pair-Solo

Students do problems first as a team, then with a partner, and finally on their own. It is designed to motivate students to tackle and succeed at problems which initially are beyond their ability. It is based on a simple notion of mediated learning. Students can do more things with help (mediation) than they can do alone. By allowing them to work on problems they could not do alone, first as a team and then with a partner, they progress to a point they can do alone that which at first they could do only with help.

Circle the Sage

First the teacher polls the class to see which students have a special knowledge to share. For example the teacher may ask who in the class was able to solve a difficult math homework question or who has visited France. Those students (the sages) stand and spread out in the room. The teacher then has the rest of the classmates each surround a sage, with no two members of the same team going to the same sage. The sage explains what they know while the classmates listen, ask questions, and take notes. All students then return to their teams. Each in turn, explains what they learned. Because each one has gone to a different sage, they compare notes. If there is disagreement, they stand up as a team. Finally, the disagreements are aired and resolved.

Partners

The class is divided into teams of four. Partners move to one side of the room. Half of each team is given an assignment to master. Partners work to learn and can consult with other partners working on the same material. Teams get back together with each set of partners teaching the other set. Partners quiz and tutor teammates. Teams review how well they learned and taught and how they might improve the process.

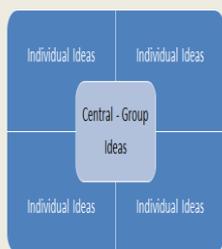
Four Corners

The class is given a statement/question and asked whether they strongly agree, agree, strongly disagree, disagree. They are given 30 seconds to think about this and then go to the corner of the room which most appropriately reflects their opinion. They form groups of 2/3 and share why they chose that corner. The teacher randomly calls on these makeshift groups to explain why they chose that particular corner.

Place Mat

This involves groups of students (4 works well) working alone and together around a single piece of paper simultaneously. The paper is divided up into pieces based on the number of members in the group with a central square or circle. After the presentation of the material, the students are given the opportunity to write their own thoughts/opinions in their own section. The agreed elements are then taken from individual sections and placed into the central - group - section.

Place Mat Diagram



Graffiti

This is a creative brainstorming process. Students get into groups of 3 or 4 with a large piece of blank paper. Each piece of paper has a topic (same or different) in the middle. Students get 60-90 seconds to individually but simultaneously record their ideas on paper. They then stop, stand up and go as a group to a different piece of paper. They once more write their ideas. They continue this until each group has visited all other groups. When they return to their own table they have the collective wisdom of the whole class.

Guide to Effective Cooperative Learning

How does Cooperative Learning boost achievement?

- As educators we may feel that direct instruction is the most effective form of curriculum delivery because it allows the teacher complete control over both the direction of the learning and the timescale of the delivery. However, research has conclusively shown that cooperative learning methodology as a support to direct instruction combines to produce effective learning. Without direct instruction, cooperative learning would not be effective; without cooperative learning, direct instruction is in danger of going in one ear and out the other!

There is a lot of pressure to cover the curriculum. How can I cover the curriculum if I allow time for student discussions, team building, class building and silly sport energisers (small scale activity in the class to raise energy levels- i.e. get students into a circle and let them pass a tennis ball to each other).

- If we want to cover as much of the curriculum as possible, we have to stand in front of the class and talk fast and allow no interruptions, student discussion or student questions. We will cover most of the course in this way but students will understand, enjoy and retain little.
- The curriculum needs to be taught in a way that develops understanding and appreciation and in order to do this we need to stop talking as teachers and let our students do some!

- Research has shown that we retain a great deal more of what we say than what we hear. However there is more to this story because in today's society information is changing constantly and at a very fast pace – it is estimated for instance that the half life of knowledge for a graduating engineer or psychologist is less than 5 years – that is half the information they have acquired in college will be outdated in 5 years. We must then as educators, encourage our students to adopt a life long philosophy of learning – in this way we give them the skills to survive in the learning economy.
- In terms of energisers – how often has your mind wandered during a lecture, in-service or even staff meetings! – and you are expert learners. Can you imagine how our students feel? We need to vary our delivery to keep the students interested in the material.

Doesn't preparation of cooperative learning lessons take too long?

- When cooperative learning was first developed its planning was necessarily complex because educators were experiencing a new philosophy. However this complexity put teachers off and thus created inconsistency in its implementation. The focus nowadays is to keep cooperative learning simple, use the curriculum as a vehicle for topics and vary the approach to the delivery of this curriculum – so you may use cooperative learning one day, direct instruction another day or combine them into one lesson. Preparation is needed – you are in control of the curriculum but you inspire your students and manage the learning giving direction and impetus rather than simply filling their heads with facts. So your lesson plan allows you to cover the topic in question, but how the students disseminate this information is where cooperative learning comes to the fore. In other words you don't design a cooperative learning lesson, you let cooperative learning into your lesson through learned structures (jigsaws etc.).

How often should I use cooperative learning?

- Normally good practice dictates that teachers start small and gradually increase their repertoire of structures. Initially teachers may use simple activities like think-pair-share or three step interview #1. They use more elaborate structures as both they and their students become more familiar with the process of cooperative learning. So stay in your comfort zone and limit yourself and the class to simple cooperative learning activities until you are ready to move on – too much too quickly will have a detrimental effect on the longevity of the process.

With students all interacting at the same once, won't noise escalate? Will my class get out of control?

- There is such a thing as quiet cooperative learning. This uses "inner voices" where students talk within their own group in a way that the neighbouring teams cannot hear. You can encourage quiet team work through quiet rewards, a quiet captain (assigned to each team) and even encourage them to develop quiet cheers! which means you can have quiet teams that are also enthusiastic.
- Moving around the classroom, observing and listening will reduce noise levels. Student awareness of your presence is crucial to their continuing focus on the task. If you set a cooperative learning task and then sit at the top of the class you will have noise problems, discipline problems and no opportunity to input into the students work.

- The issue of control is very real. With so much interaction going on in the class it is very easy for classroom behaviours to deteriorate. Cooperative learning does create high energy levels and your role is to direct this energy in a productive way. When your groups are established, it is important to integrate a code of behaviour within these groups. Group responsibility for their learning is one aspect of successful cooperative learning, social responsibility is another. By developing these social skills, the group learns self-discipline.

How do I set up my groups?

- Your expertise and understanding of the class is vital in relation to establishing a proper group dynamic. You know the personalities in your class and soon enough you will be able to predict who works well within such groups. However cooperative learning works best through discussion and diversity so although well established groups work most effectively, it is recommended that they are peopled diversely. Heterogeneous groups work better than homogeneous groups.