

**ACTION RESEARCH AND TEACHER
PROFESSIONAL DEVELOPMENT IN PRIMARY
SCHOOLS IN LEBANON**

A thesis submitted to The University of Manchester for the degree of
PhD
in the Faculty of Humanities

2007

WAFI KOTOB

SCHOOL OF EDUCATION

ProQuest Number: 10996929

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 10996929

Published by ProQuest LLC (2018). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

(EX86R)

THE
JOHN FYLANDS
UNIVERSITY
LIBRARY



Th33400

TABLE OF CONTENTS

LIST OF TABLES	7
ABSTRACT	8
DECLARATION	9
COPYRIGHT STATEMENT	10
ACKNOWLEDGEMENT	11
CHAPTER 1. INTRODUCTION	13
1.1 Change in Schools.....	13
1.2 Context of the Problem	14
1.3 Researcher's Background.....	16
1.4 Aims and Research Questions.....	18
1.5 Outline of Methodology	19
1.6 Outline of Thesis	19
CHAPTER 2. THE LEBANESE EDUCATIONAL REFORM	21
2.1 Introduction.....	21
2.2 A Snap Shot of Schools in Lebanon	21
2.3 Reform Agenda in Terms of Structure and Goals.....	24
2.4 The New Curriculum versus The Old Curriculum.....	25
2.4.1 At the general educational level.....	26
2.4.2 At the vocational level	26
2.4.3 Academic subjects introduced by the new curriculum	26
2.4.4 Theoretical background of the new curriculum	27
2.5 Teacher Development and the Educational Reform	27
2.6 Evaluation of the New Curriculum	31

2.7 Conclusion	32
CHAPTER 3. UNDERSTANDING TEACHER DEVELOPMENT IN THE CONTEXT OF EDUCATIONAL REFORM.....	34
3.1 Introduction.....	34
3.2 Some Approaches to Educational Reform	34
3.3 A Perspective on Teacher Development Introduction	40
3.4 Conceptual Change: The Core of Teacher Development	45
3.5 Theories of Conceptual Change.....	49
3.5.1 Argyris and Schon's theory of conceptual change.....	50
3.5.2 Posner, Strike, Hewson and Gertzog's theory of conceptual change	52
3.5.3 The cognitive-emotional approach to conceptual change.....	53
3.6 Educational Communities and Conceptual Change.....	57
3.7 Educational Policy and Conceptual Change	62
3.8 Conclusion	64
CHAPTER 4. TEACHER REFLECTION.....	66
4.1 Introduction	66
4.2 A Comprehensive Definition of Reflection	66
4.3 The Interpersonal Aspect of Reflection	71
4.4 Theories of Learning and Reflection	74
4.4.1 Dewey's (1933) conception of how a learner thinks	74
4.4.2 Kolb's (1984) experiential learning cycle.....	76
4.4.3 Schon's (1987) theory of the reflective practitioner	76
4.5 Approaches to the Development of Reflective Teachers.....	77
4.6 Methods and Techniques to Enhance Reflection	81
4.7 Factors that Impede Reflection	83

4.8	Motivating Teachers to Reflect.....	84
4.9	The Effect of Reflection on Teachers' Beliefs and Conceptions.....	86
4.10	Conclusion	87
CHAPTER 5. METHODOLOGY.....		88
5.1	Introduction.....	88
5.2	Ontology, Epistemology and Methodology	88
5.3	Personal Reflections on Ontology and Epistemology.....	91
5.4	Why Action Research?.....	92
5.5	A Brief History of Action Research.....	96
5.6	Action Research Today	98
5.7	Action Research and this Study	100
5.8	Action Research in Developing Countries.....	101
5.9	Description of the Setting.....	104
5.10	Seeking Volunteers to Participate	108
5.11	Procedure.....	108
5.12	Second Order Action Research	114
5.13	The Role of Researcher	117
5.14	Data Collection and Data Analysis	118
	5.14.1 Summary sheets	120
	5.14.2 Coding.....	120
	5.14.3 Analytical memos.....	121
5.15	The Challenges of Trustworthiness.....	122
5.16	Ethical Issues.....	123
5.17	Conclusion	127

CHAPTER 6. RESULTS AND DISCUSSION	128
6.1 Introduction	128
6.2 Teachers as Learners	129
6.2.1 Teachers' perceptions of the new curriculum	129
6.2.2 Training workshops: benefits and limitations	141
6.2.3 Teacher reflection.....	144
6.2.4 Personal factors that impede reflection	156
6.3 Social and Professional Contexts of the Teachers as Learners	157
6.3.1 The role of the inspector, the coordinator, and the principle in teacher learning	157
6.3.2 Opportunities and means for professional development.....	160
6.3.3 Students' attributes and their perceived influence on teachers introducing change	163
6.4 The Researcher's Conceptual Change Process	166
6.4.1 Using action research to help teachers develop their teaching practices.....	168
6.4.2 Sources of motivation to continue with action research	170
6.4.3 Systematically processing action research	171
6.4.4 Accommodation of action research.....	178
6.5 Conclusion	179
CHAPTER 7. CONCLUDING REFELCTIONS.....	180
7.1 Introduction.....	180
7.2 Pulling the Pieces Together.....	180
7.3 Using Action Research and Professional Development in Lebanon	184
7.3.1 Implications for the role of the facilitator	187

7.3.2 Reflections of the role of the facilitator	189
7.4 Implications for Teacher Professional Development.....	194
7.5 Implications for Educational Policy.....	196
7.6 Implications for Research in Teacher Professional Development	197
7.7 Limitations	200
7.8 Implication for Future Research	201
7.9 Final Reflections	202
REFERENCES.....	205
APPENDECIES	
APPENDIX A. SUMMARY OF DATA COLLECTED.....	220
APPENDIX B. LIST OF INTERVIEWS/ FEEDBACK SESSIONS/REFLECTION PAPERS	222
APPENDIX C. CODES AND THEMES	225
APPENDIX D. SAMPLE SUMMARY SHEET	228
APPENDIX E. SAMPLE OF ANALYTICAL MEMOS	230
APPENDIX F. SAMPLE TRANSCRIPT WITH PRELIMINARY CODING	232
APPENDIX G. FLOW CHART OF THE COGNITIVE–AFFECTIVE MODEL OF CONCEPTUAL CHANGE	235

Main Text Word Count: 72,465 words

LIST OF TABLES

Table 3.1 Factors/Insights for Large Scale Reforms (Fullan, 2000)	38
Table 3.2 Teaching Conceptions and Approaches to Teaching (Trigwell & Posser, 1999).	47
Table 4.1 Framework for Reflective Pedagogical Thinking (Sparks-Langer, Simmons, Pasch, Colton and Starko, 1990).....	69
Table 5.1 Data Collection during Research Phases.....	118
Table 6.1 Emerging Themes and their Subcategories.....	128

ABSTRACT

There is increasing interest in the contribution of action research to the professional development of teachers and to improving the quality of education in many countries around the world. However, there have been no studies that have used this approach in Lebanon. Hence the aim of this research is to investigate the impact of an action research approach to changing teachers' conceptions about teaching and learning in primary schools in Lebanon, a country which had introduced a major reform of pedagogy across the curriculum.

The participants were 12 primary grade teachers in 3 schools in Saida, Lebanon. These teachers were encouraged to reflect on their classroom practices through a series of activities that the literature recommends for fostering reflection. These included engaging in semi-structured interviews, reflecting on observation notes and video recordings of their classroom practices, writing journals and giving feedback to peers.

The findings indicate that teacher reflection was highly influenced by the authoritarian hierarchal structure of the educational system in which they work. Although teacher reflection developed into higher levels through the 6 phases of the research (from the technical to the practical and from routine reflection to dialogue reflection), teachers' ability to reflect at higher levels seems to be hindered by the evaluative nature of feedback that they receive from the local authority inspectors, subject coordinators and school principles.

The research concludes with a discussion of the implications of the findings for understanding teacher reflection and its relation to professional development in Lebanon and in other countries with similar educational systems.

DECLARATION

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

COPYRIGHT STATEMENT

- (i) Copyright in text of this thesis rests with the author. Copies (by any process) either in full, or of extracts, may be made only in accordance with instructions given by the author and lodged in the John Ryland University Library of Manchester. Details may be obtained from the Librarian. This page must form part of any such copies made. Further copies (by any process) of copies made in accordance with such instructions may not be made without the permission (in writing) of the author.

- (ii) The ownership of any intellectual property rights which may be described in this thesis is vested in The University of Manchester, subject to any prior agreement to the contrary, and may not be made available to use by third parties without the written permission of the University, which will prescribe the terms and conditions of any such agreement.

- (iii) Further information on the conditions under which disclosures and exploitation may take place is available from the Head of School of Education.

ACKNOWLEDGEMENTS

I would not have been able to complete this research and the thesis without the support and encouragement of many people.

First, I would like to thank Professor Peter Farrell, my supervisor for the past three years and ten months. He both supported me and challenged me to invest a great deal of effort and thinking through the process of this research. His patience, care and understanding motivated me to work harder and his encouragement made the difficult times more bearable.

I would also like to thank Mrs. Shelly Darlington for being there for me at times when I needed reassurance, especially on the day of my PhD proposal presentation to the panel. On many occasions our chats together eased the harshness of loneliness that is usually associated with being a PhD student.

I am also grateful to the School of Education at the University of Manchester for awarding me the University Research Studentship which reduced the financial burden of engaging in my research on a full-time basis.

And of course I thank every member of my family: I thank my father for teaching me that nothing will be achieved without perseverance, courage and a great deal of belief and I thank my mother for her prayers and soothing concern that were very helpful at times of despair.

I thank my sisters Safa, Hala and Farah for their support and help during the difficult times when I had to be away from my children and they were there for them.

I thank my Aunt Inam El Ali for her hospitality and care which made being away from home less painful.

I thank my lovely children Reem, Abdel Karim and Hussein for encouraging me and for taking on responsibilities while I was away. Their tolerance with my absence and their maturity made it easier for me to concentrate on my work and to give it my undivided attention.

Last but not least, I thank my dear husband Taha for his belief in me and for treating me as an equal partner, a rarity in our culture that is only an attribute of men who are self-confident and reassured. Even though I had to stay away for long periods of time, he never made me feel guilty about it; on the contrary, he made me feel that he was proud of me and that only enhanced my commitment to this PhD.

I dedicate this PhD to the teachers who volunteered to take part in this research; if it were not for their generosity with their time and effort I would not have been able to understand and appreciate many aspects of our educational system in Lebanon.

CHAPTER 1

INTRODUCTION

“Most of the problems associated with implementing a constructivist approach to teaching could be overcome if teachers were willing to rethink not only what it means to know a subject matter, but also what it takes to foster this sort of understanding in students. This is a tall order. Such change is unlikely to occur without a good deal of discussion and reflection on the part of the teachers. Identifying what is problematic about existing beliefs, however, is an important first step in the change process” (Prawat, 1992).

1.1 Change in Schools

Governments across the world are engaging in educational reform through designing and implementing new school curricula, through setting national tests and criteria for measuring the quality of schools, or through providing teachers with opportunities to develop professionally (Day, Stobart, Sammons, & Kington, 2006). At the same time, educators and researchers who have investigated educational reform around the world agree that sustainable change in schools is very difficult to achieve and that the top-down approach to reform, in which most governments engage, is especially inadequate in impacting teaching practices and student achievement; the two main areas at which educational reform is focused (Farrell, 2000; Fullan, 2000; Hargreaves, 2000; Riley, 2000).

According to researchers in this field, the above can be attributed to the fact that the planners of reform usually fail to give attention to teachers' affective needs, content and pedagogical knowledge and the cultural and socio-economic conditions in which they work (Day et al. 2006). This is especially important since it is the teachers who have to implement the reform (Hargreaves & Fullan, 1998) and as Hargreaves and Evans (1997) state, “Where educational change is concerned, if a teacher can't or won't do it, it is simply not done” (p.3).

According to Prawat (1992), for teachers to become both willing and prepared to implement change they need to go through a process of belief change related to different areas in their work. Teachers need to change their beliefs about the

nature of the content of their subject matter and the curriculum, about the nature of their learners, about teaching practices and, most importantly, about learning. To bring about this kind of belief change, researchers have proposed different models for changing conceptions (Gregoire, 2003; Hill, 2004; Ho, 2000) which explain the mechanisms involved in a process that leads to significant and lasting change in teaching practices. These models of change were informed by a number of theories; the most influential of these are: Argyris and Schon's (1974) theory of transition between theories-in-action; Posner, Strike, Hewson and Gertzog's (1982) theory of conceptual change, and the cognitive-emotional approach to conceptual change (Gregoire, 2003) which is also a process-based approach but which highlights the role of emotions, appraisals, and motivation along with cognition as mediators of belief change to arrive at conceptual change.

To understand how teachers perceive and introduce change in their classroom practices, many researchers and educators recommend a collaborative action research model that has proven effective in affecting professional development (Ainscow, Booth & Dyson, 2006; Elliot, 1997; Lewin & Stuart, 2003; Pryor, 1998; Reason & Rowan, 1981), and according to Torrance and Pryor (2001), "An action research approach seems particularly suited to high-quality development work on the interface between teaching, learning and assessment.... Gradual engagement with teachers' premises followed by the provision of an analytic framework proved a useful way of managing collaboration between university researchers and (teacher researchers) and in brokering educational theory to classroom practitioners" (p. 629).

However, this approach to teacher development and educational change is relatively new and further investigation is still needed to find out how far it is effective in bringing about change in classroom practices (Ponte, 2005) and how transferable it is to other countries with different cultures than the ones it has originated in (Pryor, 1998, Walker, 1994).

1.2 Context of the Problem

An opportunity to research how action research can help teachers to embrace change was presented in the context of the Lebanese educational reform. The

educational authorities in Lebanon had started the process of implementing new curricula in schools since 1989; the main aim of the new curricula was to transfer Lebanese schools from the traditional model of teaching – where there is overemphasis on memorization and teacher dominated classroom instruction – to a more “modernized” model where the child is the centre of the learning process and where there is more emphasis on thinking skills and creativity (The theoretical orientation of the new curriculum will be discussed in more detail in chapter 2). This transformation was the channel used by the Lebanese educational system to take part in a national effort for reconstruction and rehabilitation that was essential after 20 years of civil war. Lebanese citizens needed to be prepared academically, socially and emotionally to contribute effectively in rebuilding their country.

To implement the new curriculum, teachers in Lebanon were expected to go through a process of change that would allow them to introduce the new content, form and teaching methods that were necessary to yield the results expected by the designers of the reform. To help teachers through the process of change, the implementation of the new curricula was accompanied by a nationwide plan for teacher workshops and training sessions that aimed at introducing teachers, at all levels and in all subjects, to the new curricula and at preparing them to adopt the new “modernized” model of teaching and learning.

However, through a study that entailed document analysis and interviewing teachers, teacher trainers and “master” trainers, El Amine & Bakdash (2002) conclude that, today, and after approximately seven years of the initial phase of implementing the new curricula, the majority of teachers still seem to be facing problems in adopting the new model of teaching and learning. This was also confirmed by the Centre for Educational Research and Development (CERD, 2006) who report that the training programme was successful in some areas; such as highlighting the importance of the new curriculum in introducing much needed changes in the educational system and developing some basic teaching skills and techniques among teachers, but not in all the areas that the programme addressed.

According to research findings on educational reform and teacher development in other countries, these problems could be explained as the result of the incompatibility between the underpinning principles of the new curricula and those of the traditional model of teaching to which most teachers are still adhering (Borko, Elliot & Uchiyama, 2000; Hargreaves, 1989; McLaughlin, 1997; McLaughlin & Mitra, 2001; Prawat, 1992; Ravitch & Vinovskis, 1995; Woodhead, 1995). Therefore, the traditional model of teaching could be a result of the beliefs about teaching and learning that the teachers hold and, for these beliefs to change, teachers need to go through a process of conceptual change. This does not seem to have been achieved by the 6-day workshop that the teachers had attended.

Therefore, before teachers can assume a more diverse role in developing the whole child, it would seem important to find ways that would aid teachers to change their conceptions about teaching and learning. This could help education policy makers in Lebanon to understand how teachers can introduce changes in their classroom practices that are not only essential in implementing the new curriculum, but also in playing a more significant role in the much needed reform. It would also seem important to find out about the factors that are hindering teachers from adopting changes in their classroom practices, and consequently standing in the way of achieving the goals intended by the original educational reform plan.

1.3 Researcher's Background

This study is underpinned by a constructionist approach to reality and knowledge (this will be discussed in detail in Chapter 5), accordingly, it seems important to outline my experience in the field of education in Lebanon in order to understand how these experiences have influenced my view of the reality of the educational context that I have worked in, and how this view has influence my approach to the study.

I have been working in schools since 1987; I started with teaching primary school children how to make simple programs on their computers then moved to teaching English as a second language to intermediate and secondary students,

and later I taught introduction to philosophy and introduction to psychology to high school students.

My experience in teaching helped me realize that students need to be aided to develop their character, identity and value system before they could really grasp the true meaning of most of the things that they learn, not only in school, but also later at university and in their career lives. This was my motivation to go back to university, and I studied for an MA in Educational Psychology with an emphasis on guidance and counselling.

For five years, I worked with students - and less frequently with their teachers- to help them overcome some of the difficulties that they were facing either socially or academically. As a school counsellor and with my interactions with students, it became clearer to me that, although the school counsellor can propose plans for students to try to overcome their social and academic difficulties, it was the teachers who have the most significant role in helping students overcome the majority of these problems. Students spend most of their school day in the classroom and with their teachers; this provides a valuable opportunity for teachers to play a significant role in helping students develop in all areas. Accordingly, it is the teachers that need to have the necessary knowledge, skills, conceptions, beliefs and most importantly the commitment to play such a role.

However, before entrusting teachers with such a big responsibility, it seemed logical that the educational system is to provide the opportunity and the support that teachers need to become equipped for this role, and this is where the issue becomes more complex. What is it that teachers need to know? What skills are necessary? How can this knowledge and these skills be developed? And most importantly: What will ensure that teachers become committed to use this knowledge and these skills to play such a demanding role?

At the same time, through my experience with training programmes and workshops as a teacher it became clear that ready made recipes are not the answer. For any real learning to take place i.e. learning that will lead to change in teachers' classroom practices, teachers need to be involved in a process that

would motivate them to understand the different aspects of their context (including themselves and their students) in order to evaluate them and then plan for changes where needed and to be committed to those changes.

The implementation process of the new curriculum in Lebanon provided a rich context to investigate ways that teachers adopt and adapt to change. It was supposed that if one can identify ways that help teachers to change, assume a new role, or develop a set of necessary skills then this could open a window on how teachers can develop a range of skills that would enable them to help students develop and grow academically and socially.

1.4 Aims and Research Questions

The above process of thought was the trigger for this study. Although I strongly believe that teachers need to play a more significant role in developing the whole child with an equal emphasis on academic, social and emotional dimensions, in this research there was the opportunity to examine one aspect of this role, namely the academic.

Therefore, to understand how change was perceived and implemented in the classroom it seemed crucial to start with an investigation of the teachers' beliefs about teaching and learning, the difficulties that they are facing, and the particular aspects of their context. This investigation's objective was to "generate data that is (both) rich in detail and embedded in context" (Maxwell, 1996), and to set the stage for the teachers to be more committed to any action that needs to be taken to effect change.

More specifically, the aim of this study was to undertake a qualitative research approach to try to find answers to the following questions:

- 1- How do teachers understand and evaluate the changes made by the new curriculum in Lebanon?
- 2- What are the factors in the Lebanese educational context that aid or hinder the process of reflection and eventually the process of conceptual change?

3- Would engaging teachers in activities that are said to encourage reflection help them to better understand the changes introduced by the new curriculum, and to develop their reflective thinking and self-evaluation skills?

1.5 Outline of Methodology

Data were collected from 12 teachers in three primary schools in Saida, Lebanon, through a process of action research that had six phases. The first phase involved interviewing teachers to try to understand how they perceived the new curriculum: how they understood the changes made by the new curriculum, what difficulties they were facing and what new aspects they welcomed. The other five phases involved engaging teachers in activities such as: discussing their classroom practices, watching video recordings of themselves in their classrooms, engaging in a group discussion, writing journals, and observing peers.

The objective of these activities was to provide teachers with opportunities to develop their reflective thought which is the heart of the much needed process of conceptual change. Researchers and teacher developers that advocate conceptual change for professional development seem to agree that teachers need to be given enough opportunity to reflect in a safe and supportive environment (Kolb, 1984; Rogers, 2002; Schon, 1987; Tigchelaar & Korthagen, 2004). Through reflecting on their classroom practices teachers will be able to interrogate the underpinning beliefs of these practices and can examine them in terms of their effectiveness in the teaching and learning process. Therefore, reflection is regarded as the driving force in the process of conceptual change.

All the data collected from the interviews and the reflection activities were documented and analysed to try to find answers to the research questions posed by the study. It is hoped that the findings of the analysis will inform future educational policy in Lebanon and other similar educational contexts.

1.6 Outline of Thesis

This chapter (chapter one) has introduced the problem that was investigated by this study along with its context and the theories that informed its design and

implementation. Chapter two describes the Lebanese reform plan and the way it was implemented. It also presents the impact of the reform to date and describes the way teachers were prepared for the reform. Chapter three discusses theories of teacher professional development and relates them to educational reform in general and to conceptual change in particular. Chapter four considers the definition of reflection and presents ways that reflection can be identified, fostered and analyzed, and chapter five discusses the ontological and epistemological stance that informed the research design and the methodology of this study and explains the procedures and the analysis processes followed. Both chapters four and five provided the framework for the data analysis that is presented and discussed in chapter six. The last chapter, chapter seven, restates the aims of key aims of the research and relates them to the main findings in this study and discusses the implications that the findings have for teacher professional development, for educational authorities and policy makers and for action research in the field of teacher education. Chapter seven also discusses the limitations of the study and ends with personal reflections on the study and its findings.

CHAPTER 2

THE LEBANESE EDUCATIONAL REFORM

2.1 Introduction

This study investigates the developing role and effectiveness of teachers in the context of the educational reform project in Lebanon. However, in order to understand the context in which the study took place, it is necessary to reflect on the different aspects of the reform: when it was introduced, why it was introduced, how it was introduced, and how these factors have affected teachers and their practices. Accordingly, this chapter will include:

- A general introduction of certain aspects of schools in Lebanon which are related to this study; this is important for contextualizing the findings which will be presented in the last two chapters in this thesis.
- A description of the different aspects of the Lebanese educational reform and an outline of the general structure and goals of the reform.
- A discussion of the implementation of a new curriculum which was the core of reform.
- A brief comparison between the old curriculum and the new curriculum along with the theoretical backgrounds that influenced these curricula.
- A discussion of the issues of implementation of the reform and the teacher training plan for the reform.

The chapter will conclude with what is believed to have been achieved and what still needs to be achieved.

2.2 A Snap Shot of Schools in Lebanon

Schools in Lebanon are divided into three levels: the primary (elementary), the intermediate and the secondary. This academic division is not necessarily

reflected in the physical scene; since one school could have one or more levels that are administered by the same staff and the same school principle. The schools are also categorized as private schools, public (state) schools and private low-tuition schools.

The private schools are usually funded by the private sector which could be a single proprietor or a non-governmental organization that usually has its roots in a religious organization either in Lebanon or abroad. The two most important examples are the Orthodox Schools Congregation which gets funds and support from the International Orthodox Church and the Makassed Charitable Association which gets funds and support from Saudi Arabia. These schools usually incorporate religion classes in their curriculum and the students enrolled are usually from the corresponding religion. Other more sectarian private schools usually cater for the upper classes and are funded by their higher than average fees.

The low-fees private schools are funded by non-governmental organizations which are usually with a religious orientation. These schools were originally authorized to allow the private sector to provide educational services for many students whom the government could not provide for in its schools. Accordingly, the government subsidizes these schools but their management and major funding is the responsibility of the organization to which they belong.

The public (state) schools are run by the Ministry of Education through the Local Educational Authorities. These usually cater for students from lower socio-economical backgrounds and they form the majority of the schools in Lebanon. Some of these schools have a nation wide reputation for a high level of student achievement in public examinations especially at the secondary level, but parents who can afford a private school will usually not choose to send their children to a state school. The reason for this could be social and not necessarily academic. In general, government schools have a reputation for being under funded and this has an impact on resources availability both the material and the professional. Moreover, these schools seem to be very slow to progress and develop and this is usually attributed to the complex bureaucratic structure of which they are part.

It is mandatory for students in all schools in Lebanon to be taught a second language along with Arabic starting from grade 1. The second language is usually either English or French. Some regard this as the result of a history of colonization and others attribute it to the geographical location of Lebanon on the Mediterranean which gave it the role of bridging between the East and the West, more specifically between the Arab world and Europe.

Students' proficiency in a second language has a role in identifying the school's level of success, and schools teach other subjects such as Mathematics, sciences and social studies in the second language to give their students a better opportunity to develop their language skills. Schools that can teach their students to become proficient in a second language are usually regarded in high esteem and students who are proficient in reading, writing and speaking either English or French usually have a better chance for a prestigious career; this is due to the fact that the commercial field in Lebanon is highly westernized in form and content. Accordingly, private schools, in general, have an upper hand in this area since they have the resources that allow their teachers to develop their second language skills and because they are less likely to be slowed down by the government schools' complex structures.

However, whether private or public, schools in Lebanon are usually influenced by an authoritarian approach to management that is a reflection of the culture that they belong to which is also authoritarian in its approach and hierarchal in its structure.

The Lebanese Educational Reform, which will be presented and discussed in the following sections of this chapter, was to be implemented in all schools in Lebanon since all students have to sit for common public examinations at the end of the 9th grade and the 12th grade. However, the implementation of the reform and the new curricula seemed to be smoother in private schools which had the advantage of ample resources and which were already exposed to, and had the freedom to experiment with, the more "modernized" approach to teaching and learning which is at the core of the reform plan.

2.3 Reform Agenda in Terms of Structure and Goals

In 1990, the 20-year civil war in Lebanon came to an end, and there was a need for the Lebanese government to engage in a process of rebuilding and restructuring all aspects of government and civil life. Accordingly, the government introduced rehabilitation programs and reform projects that aimed at economical and social development. Among the diverse reform projects, an ambitious educational reform was negotiated and implemented.

The reform started as an “Educational Development Plan” that was endorsed by the Lebanese Cabinet on the 17th of August, 1994, and that aimed mainly at “developing the educational structure” and at “establishing a progressive educational ladder” (CERD, 1995, p. 2). These aims were translated into the “New Educational Structure” that was produced by the Center of Educational Research and Development (CERD). The new structure provided a framework for the different kinds and sections of education; it outlined the relationship between general academic education and vocational education, and the relationship between pre-university and higher education. This was necessary to establish an educational system that can serve the needs and aspirations of the Lebanese society in the terms of social development and economic growth (CERD, 1995). The new structure was the base for developing a new curriculum that would prepare students in all levels and in all kinds of education to become integrated into the job market and to play a much needed role in economical growth and development in general. Therefore, the new curriculum was the practical translation of the general educational aims and goals, and its main purpose was to prepare students to face the challenges of rebuilding a social contract that was battered by war and of reintegrating in a new world economical system that was estranged to the former Lebanese curriculum which had been frozen by 20 years of war while the rest of the world was progressing rapidly.

In the Official Newspaper (1997), the educational authorities stated that the new curriculum introduces new approaches, new content, and new methods to teaching and learning. Among the innovations that it introduces were: i) thematic learning, where the different subject matters are integrated to form a comprehensive curriculum; ii) considering language as an aggregate of skills that

is integrated in all subject matter; and iii) considering assessment as a continuous process to evaluate the child's progress and the teacher's practices and their suitability in meeting the diverse needs of the children and their styles of learning. Moreover, the new curriculum explicitly stated that it relies on "... varied activities as a method of learning, where the child is both active and interactive, and attempts to achieve development and learning through experiential learning", and it emphasized that "The child needs to acquire a sense of curiosity and discovery through meeting his developmental needs. This can be achieved through making learning an enjoyable process which bears challenges that will make achievement a means to develop the child's self esteem." (The Official Newspaper, 1997, p.19)

2.4 The New Curriculum versus The Old Curriculum

To get a more practical perspective on the new curriculum and its implementation, I arranged for an interview with Layla Fayyad, the Head of CERD, in April 2006, and at her request the interview was structured, so I prepared 5 questions related to the educational reform, the new curriculum and the teaching training plan; the answers to the questions reflected how CERD saw the reform to date.

According to Fayyad, the old curriculum in Lebanon was rigid and unable to respond to the modernization and development of education, so there was a need for a new form and content of education that would develop the individual in a way that will allow him/her to adapt to social, economic and environmental changes, and to realize his/her potential in personal, social, and economic development. More explicitly the old curriculum was characterized by being:

- Highly theoretical and lacking practical learning.
- Highly instructional as opposed to analytical and constructivist.
- Lacking modernization in terms of subjects, content and details.
- More oriented towards individual learning as opposed to cooperative learning.
- Alien to students in terms of what students learn in school and what they are exposed to in society and through the media.

- Poor in mechanisms and content that would prepare the student to move easily from academic to vocational learning.

These characteristics among others made it imperative to revise the old curriculum and to introduce major changes allowing the student to become more prepared for the latest innovations and development in the different academic and social fields. The result was a new curriculum that was endorsed by the Lebanese Cabinet on May 8th, 1997. This curriculum introduced structural changes both at the general educational level and at the vocational education level.

2.4.1 At the general educational level: The new curriculum identified three major stages in schooling: preschool (2 years), Basic Education (9 years), and Secondary Education (3 years). Basic Education is also divided into 3 cycles; the first cycle includes grades 1 to 3, and the second cycle grades 4 to 6 and the third cycle grades 7 to 9. This division made it easier to plan and develop curricula for the different stages of student cognitive, social and emotional development. Moreover, students sit for public exams at the end of the 9th grade to be awarded the Official Basic Education Certificate, and at the end of the 12th grade to be awarded the Official Secondary Education Certificate that allows them to be enrolled in universities. To cater for student needs and interests secondary students can join one of the four sections: Humanities and Literature, General Sciences, Life Sciences, and Sociology and Economics.

2.4.2 At the vocational level: The new curriculum also provided necessary changes to allow students to transfer to vocational learning at different levels starting from grade six. This kind of education trains students in different vocations, and prepares them to be awarded diplomas in different fields.

2.4.3 Academic subjects introduced by the new curriculum: The new curriculum introduced new subjects in schools: Information Technology, Sociology and Economics, Physical Education, and school clubs for Arts, Music and Drama. This was necessary to expose students to innovations in the

academic field and to provide for them the opportunity to develop their creativity and self-expression skills.

2.4.4 Theoretical background of the new curriculum: Based on the theory of social constructivism the new curriculum introduced a list of innovations to the teaching learning process, among these are:

- Enriching the learning environment with experiential learning as opposed to theoretical learning that dominated the old curriculum.
- Emphasizing student-centered learning as opposed to teacher-dominated teaching.
- Implementing diverse teaching methodologies, with an emphasis on cooperative learning, as opposed to talk and chalk instruction.
- Developing text books to include topics that reflected the interests of the contemporary student as opposed to topics that are outdated and alien to students.
- Engaging students in learning activities that would develop their analysis and critical thinking skills, as opposed to memorization and rote learning.
- Approaching education in a manner that would foster principles of free expression and democracy, as opposed to authoritarian principles.
- Addressing the whole student taking into account the emotional and the social needs, as opposed to overemphasizing academic needs.

According to Fayyad, “The above is a reflection of the approach of the new curriculum; the curriculum addresses students in a humanistic way highlighting their need to develop both cognitively and spiritually and preparing them to realize their rights as citizens and their responsibilities as agents of social change and development.”

2.5 Teacher Development and the Educational Reform

The reform states explicitly that teachers and school principals need to be engaged in a continuous process of professional development. This process will introduce them to modern teaching methodologies and provide them with skills that would help them to deal better with problems and difficulties that they face in their classrooms and schools. Therefore, the implementation of the new

curricula was accompanied by a nationwide plan for teacher workshops and training sessions that aimed at introducing teachers, at all levels and in all subjects, to the new curricula and at preparing them to adopt the new “modernized” model of teaching and learning.

Therefore, in 1997 the educational authorities set a plan to train all teachers in Lebanon during a period of 3 years. According to Fayyad, the plan identified the objectives for teacher training, the training staff, the kinds of teacher training, and the implementation process for the training. For each subject at each level of schooling, master trainers were hired to prepare trainers-of-trainers who prepared local teacher-trainers. The teacher-trainers were prepared in 3 day workshops and meetings were set for evaluation techniques, follow-up, and coordination. Before implementing the new curriculum, the teachers took part in 6-day workshops; then they were engaged in two days of implementation and a 5-day workshop for follow-up was planned. The training programme included two main parts: the first part introduced teachers to the philosophy of the new curriculum, its theoretical background and its general goals, and the second part introduced teachers to the content of the school subjects, and trained teachers in more detailed skills for teaching methodologies and evaluation techniques.

According to CERD this initial teacher training plan succeeded in:

- Achieving the goals it was originally set for.
- Carrying out the first two phases of training for all the teachers in Lebanon.
- Highlighting the importance of the new curriculum in introducing much needed changes in the educational system.
- Developing some basic teaching skills and techniques among teachers.

However, the teacher training did not succeed in:

- Creating the necessary changes in teacher attitudes and concepts of teaching.
- Developing teaching skills that would allow teachers to engage in diverse teaching methodologies, especially managing cooperative learning in their classrooms.

- Engaging teachers in deep understanding of the educational theories that the curriculum was based on; teachers were only superficially and theoretically introduced to these theories.
- Implementing the last phase of the training plan that was crucial to provide follow up and to motivate teachers to use what they have been trained in.
- Preparing competent teacher-trainers in all areas and for all subjects.
- Providing training for the new subjects that were introduced because there were very few teachers qualified to teach these subjects.
- Providing training that would meet the actual needs and conceptions of the teachers.

CERD reports that the training program was successful in some areas but not in all that was aimed for. The process of evaluation that CERD used to arrive at this conclusion is not presented, so it is not easy to evaluate the methodological rigor of the evaluation process.

However, the above evaluation of the teacher training program is also confirmed by the results of a study carried out by the Lebanese Association for Educational Studies. The data for this study were collected through document analysis and interviews. Forty two documents were analyzed, and these included documents related to the teacher training program that was organized by CERD and a sample of the reports presented by the trainers. Moreover, 186 interviews were conducted with teachers (102), trainers (70), master trainers (9), and developers of training material (5) (El Amine & Bakdash, 2002).

The study notes that the 7-page training plan was too brief and unclear in many parts. For example the plan does not identify the characteristics of the master trainers and trainers, and it mentions their mission in general terms (preparing and training teachers). Moreover, each phase of the plan is identified in terms of duration with no specifications of type of training or procedures of training. Implementation issues are also unclear, and although the plan states that the success of the plan depends on the availability of resources it does not specify how the resources will be made available.

As for preparing trainers, the plan states that ‘when necessary’ the trainers will attend lectures, theoretical lessons and application activities. The result of this was clear in the highly theoretical and traditional teacher training workshops which lacked all kinds of practical application and which were in contrast with the theoretical basis of the new curriculum, i.e. the theory of social constructivism.

The study concludes that the effect of teacher training on classroom practices is quite limited. According to the data, in general teachers stated that the training was “beneficial”, but they also stated that it was not reflected in their classroom practices. The researchers explain that this might be a result of the theoretical nature of the training which did not prepare teachers in a way that they will apply what they learnt in their classrooms. The theoretical approach to training succeeded in disseminating the “culture of the new curriculum” (El Amine & Bakdash, 2002, p.7) among teachers, but was unable to develop teachers’ competencies to apply what the reform set out to change.

The study concludes that only 13% of the general goals of the training plan were arrived at and explains that the two main reasons for this result are: first, teacher trainers were traditional and theoretical during training sessions and they only explained to teachers what they expect them to do in their classrooms, and second, teacher needs were not at any stage taken into account, “...teachers were grouped according to subject matter and were lectured on teaching methodologies” (El Amine & Bakdash, 2002, p. 15).

The above evaluation of the teacher professional development plan is also reflected in preliminary data that I collected, in September 2004, through interviews with two teachers and a head teacher in a primary school in Saida, Lebanon; these data reflected that teachers were still finding major difficulties in applying the new “methods and techniques”, and that the majority were using their traditional model to teach the new curricula. Even though these teachers had on average participated in 3 to 4 workshops and training sessions, they still felt

that these were not sufficient to prepare them for the model of teaching that is essential for an effective implementation of the new curricula.

Therefore, today, and after approximately seven years of the initial phase of implementing the new curricula, teachers still seem to be facing problems in adopting the new model of teaching and learning, and in many instances teachers seem to be finding difficulties in implementing the new curricula in their classes. These difficulties arise mainly from the incompatibility of the new curricula with the traditional model of teaching to which most teachers, and their trainers, are still adhering.

2.6 Evaluation of the New Curriculum

CERD seems more optimistic about the achievements of the new curriculum; again in her interview, Fayyad (2006) states that the new educational structure, with the new curriculum, was able to introduce some developments to education in Lebanon. These were summarized as:

- Introducing modernization and development to education in the form of introducing new teaching methodologies, new evaluation techniques, contemporary content and technology in schools.
- Enabling teachers to develop their knowledge about teaching methodologies.
- Promoting student-centered learning.
- Promoting the role of activities, in the classroom and outside the classroom, in the learning process.
- Promoting cooperative learning.
- Enhancing the role of the community, including the municipalities and nongovernmental associations, in supporting schools and their development.
- Developing better coordination between general education and universities, and between general education and vocational education.

However, Fayyad also lists a number of factors which rendered the new curriculum and the new reform unsuccessful in certain areas. These are:

- Discontinuation of the new subjects introduced by the new curriculum, namely, Information Technology, and the Arts, i.e. music, art and drama. This was mainly due to lack of availability of teachers for these subjects and due to lack of resources such as computers.
- Inadequacy of coordination between the different levels of schooling and between the different subjects in the same level.
- Discontinuation of teacher professional training due to a government decision to centralize all teacher development in the School of Education at the Lebanese University. This led to depriving schools from professional development personnel who could play a much needed role of supporting teachers during the curriculum implementation process.

From another perspective, a study that aimed at evaluating the impact of the new curriculum on student achievement in both public and private schools in Lebanon was published by the Lebanese Association for Educational Studies, in March 2001. The study compared between the achievement levels of students in grades 6 and 9 who studied the new curriculum and those who studied the old curriculum. The report states that achievement levels were low (less than 40%) in the four main areas of the curriculum: Arabic Language, French Language, sciences and mathematics. It specifies that achievement was especially low in writing communication skills in the languages and in problem solving skills in sciences and mathematics. The study explains that the lack of achievement might be due to “lack of necessary learning opportunities for students” (Jurdak & El Amine, 2001, p. 197). The report also states that the researchers did not find any correlation between teacher variables (level and area of teacher education, number of workshops attended, and topics of training sessions attended) and student achievement. The reason behind this lack of correlation is also explained by the inadequacy of the training in developing teachers’ skills in ways that would impact student achievement.

2.7 Conclusion

The new curriculum was introduced in Lebanon to transfer schools from one educational model to another; i.e. from a model that overemphasized memorization and lacked modernization in terms of subject content and

pedagogy to a model that encourages student-centered learning, critical thinking, problem-solving and creativity. However, although officials indicate that the new curriculum succeeded in areas such as introducing new methodologies and new evaluation techniques to teachers, the above presentation indicates that the implementation of the reform plan and the new curriculum did not achieve many of its initial objectives, even though much time and effort was invested in it. Teachers are still facing problems in implementing the changes and at many times adhere to the traditional model of teaching. As a result, student achievement levels still show no change, especially in the areas of writing and problem-solving. This raises an array of questions related to educational reform, such as, what are the factors that determine the success of a reform plan? How can reform be implemented to increase its possibility for success? How can teachers, the implementers of change, become engaged in introducing change to their classroom practices? What are the conditions necessary for change and development in an educational system? And more specifically, does top-down reform succeed in bringing about change, and, if it does, how far does it succeed? The above questions will be discussed in the next two chapters which review the literature on educational reform and the importance of conceptual change for effecting change. This is further related to reflection and its pivotal role in the process of conceptual change.

CHAPTER 3

UNDERSTANDING TEACHER DEVELOPMENT IN THE CONTEXT OF EDUCATIONAL REFORM

3.1 Introduction

Governments around the world are engaged in educational reform and in improving educational standards. This interest springs from a global recognition that effectiveness at the micro-level of the schools could play a role in addressing macro-problems of the society and the country as a whole. Governments recognize that investing in education could "...help reduce poverty, contribute to the accumulation of human capital, strengthen national capacity and good governance and add to the well-being and development of individuals" (Riley, 2000, p. 30). However, educational reform is not easy to achieve (Fullan, 2000) because it takes place in a complex arena where many factors interplay: the social, the political, and the economical, each with its diverse dimensions. It is beyond this study to investigate all of these factors and their dimensions, but it is the aim of this study to investigate the core of educational reform, namely, the role of teachers in educational change and ways that could prepare teachers and encourage them to play their much needed role in the development of education. Therefore, this chapter will start with a brief discussion of some approaches to educational reform and outline the teachers' role in reform, and the difficulties that they face during the implementation phase. Then a review of theories related to ways in which teachers can become involved in reform through their own professional development will be presented and the chapter ends by highlighting other conditions necessary for teachers to assume their role in educational reform.

3.2 Some Approaches to Educational Reform

The educational reform plans in which governments generally engage have typically common goals, but they are diverse in their focus, perspectives, and approaches. As mentioned above, this is due to the uniqueness of each country and is the result of an interaction and interdependence of each country's historical background, culture, economic reality and political aspiration (Farrell, 2000; Hopkins & Levin, 2000; Riley, 2000;).

According to Hopkins and Levin (2000), government reform plans across the world have focused on one of the following areas: curriculum, accountability, governance, market forces, or status of the teachers. For example, some governments focus on decentralization, giving more autonomy to schools, as was the aim of the policy changes that have taken place in Mexico since 1992 (Rangel & Thorpe, 2004). Other governments, like in Ghana, focus on increasing access to education through diversifying the curriculum to include vocational and technical subjects (Osei, 2006). While others set general goals for social and economic advancement like in Nepal (Khaniya & Williams, 2004). Day, Stobart, Sammons and Kington (2006) explain that governments engage in educational reform either because they "...believe that by intervening to change the conditions under which students learn they can accelerate improvements, raise standards of achievement and somehow increase economic competitiveness" or because "... they address implicit worries of governments concerning a perceived fragmentation of personal and social values in society" (p. 172).

Regardless what the focus is or what macro-problems are being addressed, investigators into educational reform around the world seem to agree that reform is very difficult to achieve, and when some change is achieved, the outcome is minimal in comparison to the time, money and effort invested in it. This is especially true when reform is measured by its impact on developing classroom practices and on improving student achievement levels, two main areas that educational reform aims at, and needs to see a difference in, before being condemned or hailed (Farrell, 2000; Fullan, 2000; Hargreaves, 2000; Riley, 2000).

Today, educational reform or educational change is becoming a field of its own; researchers are getting a better understanding of what works and what does not work (Hargreaves, 2000), and the history of this field is rich with attempts to understand it and to find ways to improve it. In his classic article House (1980) explains that educational innovation is "...the deliberate systematic attempt to change the schools through introducing new ideas and techniques" (p.1); he adds that although innovation is not necessarily change "...change and innovation can

not be distinguished neatly from one another” (p.1). After defining innovation, House (1979) analyzes it from three different perspectives: the technological, the political and the cultural.

The technological approach to educational innovation was dominant in the mid 1960s. Using rational analysis and empirical research the “innovation process” is divided into “components” and through systematic planning and rationalization the innovation is planned and implemented. This approach regards innovation as technology and tries to use “scientific” means to implement it. As a result, educational innovation is conceptualized as research, development, diffusion and adoption. “New knowledge that serve(s) as a basis for development (is) advanced during the research stage. A solution to an operating problem (is) invented and built during the development stage. This innovation (is) introduced to practitioners in the diffusion stage. Finally, the innovation (is) incorporated into school systems in the adoption stage” (House, 1979, p.2). This perspective on educational innovation has not been effective mainly because it does not take into account that teachers are “...not passive but actively engaged in local complex-environment with a distinct subculture and set of values” (p. 3). The perspective is based on the belief that a central authority can create a “generalizable” product that can be diffused in a great number of settings. Although this perspective has not yielded significant results in disseminating educational innovation, it is still being adopted by many governments and policy makers because it insures these authorities’ control and dominance over educational reform and change.

The lack of success of the technological perspective necessitated an alternative view on educational innovation, and in the mid 1970s the political perspective was introduced. Rather than a systematic and rational approach, the focus here is on the importance of “personal contact” because it provides the opportunity for all parties involved in the innovation to interact and develop common understandings that could inform teacher behavior in the classroom. One of the main premises of this perspective is that “... an innovation succeeds only where advocacy groups arise to support it” (House, 1979, p.4). These advocacy groups would secure the provision of social reward as an incentive for teachers to adopt

the innovation. The political perspective is also discussed by Davies (1996) who explains the notion of 'maximization' where the "...actors in educational institutions will always seek to maximize the benefits to themselves of opportunities and change in the organizational context" (Davies, 1996, p. 97). Therefore, the innovations need to be 'attractive' to most participants in order to insure its effectiveness. This 'attractiveness' could be in the form of professional and psychological incentives and not necessarily tangible ones. Both House and Davies contend that neglecting political analysis in efforts for educational change is usually a reason for its failure.

The third perspective on educational innovation is a cultural one. This perspective highlights the importance of understanding the cultures, beliefs and values of the different parties involved in the process of educational change before planning and introducing change. Here teaching is regarded as a craft, as opposed to a technology, and the aim is to support teachers through a slow process of evolutionary improvement within their profession. As House predicted, this perspective is gaining momentum, and it is presented in the work of John Elliot and other action researchers who believe that successful innovation is achieved by teachers fully participating in research on their own settings; i.e. insiders trying to find ways to improve their practice rather than outsiders trying to impose their own agendas of change.

House's presentation of the different perspectives to educational innovation is important to understand the complexity of educational change. It sheds light on the importance of taking into consideration the diverse "forces" that interplay when change is introduced, and it highlights the importance of planning change in a way that would accommodate for all the "different 'rationalities' afloat" (Davies, 1996, p.97) without forgetting the essential target of enhancing student learning.

From a less political perspective, Fullan (2000) explains that for educational reform to achieve its goals there are certain factors that need to be present and certain conditions that need to be met, regardless of the artifact of the plan itself.

Fullan (2000) lists eight factors or insights that need to be addressed in a large-scale reform (Refer to Table 1).

<ol style="list-style-type: none">1. Upgrade the System Context2. Become Preoccupied with Coherence-Making in the Service of Instructional Improvement and Student Learning3. Establish Plenty of Cross-Over Structures4. Downward Investment/ Upward Identity5. Invest in Quality Materials (instruction and training)6. Integrate Pressure and Support (set target/build capacity)7. Get Out of Implementing Someone Else's Reform Agenda8. Work with Systems.

Table 3.1: Factors/Insights for Large-Scale Reforms (Fullan, 2000).

Similarly, Riley (2000) gives a list of preparations that need to be done before embarking on educational reform. Riley's list includes: Identifying what needs to be changed, taking account of all those involved in the reform, being clear about the purpose of the reform, understanding the context, and attending to the process of reform and change. Tyack and Cuban (1995) arrive at a list of conclusions about educational reform after investigating it; these are : i) educational change of any consequence is inherently and necessarily intensely political and conflictual, ii) the policy makers generally get it wrong, iii) accomplishing even modest educational change involves long hard work, with generally unpredictable results, iv) there are good reasons why the basic "grammar" of schooling is resistant to quick fixes, and v) changes that last and make a difference in learning generally come from the inside out rather than the outside in or the top down (as cited in Farrell, 2000).

Moreover, according to Hopkins and Levin (2000) the factors that hinder the achievement of reform in most educational development projects are: i) focusing on the wrong variables, where the reform plan does not give adequate attention to engaging students and parents as active participants and does not expand the teaching and learning repertoires of teachers and students; ii) not adopting a systematic perspective, where the plan does not ensure coherence and contingency through a well defined policy framework; and iii) not paying attention to issues of implementation, where the plan focuses on some aspects of the curriculum rather than the teachers' behaviors, practices and beliefs, leaving out a crucial ingredient for the successful implementation of the reform plan.

Even if the explanations, for why educational reform does not yield the results hoped for, have been given from different perspectives with each researcher highlighting different factors or explanations, what seems to be common is that all of these researchers stress the importance of moving from theory to practice, from the vision of the “policy elites” for the educational reform to how this vision is translated in the reality of the classroom, i.e. from the reform plan to how reform is interpreted and implemented.

According to researchers in this field, the above can be attributed to the factor that the planners of the reform seem to be giving little attention to the perceptions and experiences of those who have to carry out the implementation of the plan, namely the teachers, and the result is a teaching body that feels pressured and confused by the reform (Farrell, 2000; Fullan, 2000; Hargreaves, 2000; Hopkins & Levin, 2000; Riley, 2000). Moreover, according to Day et al. (2006), educational reforms, even if with different content in different countries, have common factors: they result in the destabilization of teachers because they challenge teachers’ existing practices, they increase the workload for teachers and they usually lack consideration of the teachers’ work, lives and identities. These are central issues that have impact on teacher motivation, efficacy, commitment and job satisfaction, hence on the effectiveness of the reform.

After investigating educational reform in Canada, England and the US, Fullan and Hargreaves (1992) arrive at the conclusion that teacher development is central to successful reform; this was further confirmed by Hargreaves and Evans (1997) who explicitly state that “Where educational change is concerned, if a teacher can’t or won’t do it, it is simply not done.” (p.3)

The diverse examples of educational reform seem to introduce new visions of learning and teaching, expecting teachers to teach their students to think critically, create and solve problems, synthesize information and then demonstrate their understanding and skills in new types of assessment (Borko, Elliot, Uchiyama, 2000; Hargreaves, 1989). This requires teachers to adopt principles of learner-centred instruction and active engagement of students in their own learning; before being able to adopt these principles, they need to understand the theory

behind the reform, in order to change their classroom practices in profound ways rather than transmitting the reform content, following the procedures, and engaging students in activities mechanically. Otherwise, teachers will engage in superficial changes that will be “lethal mutations” of classroom practices fostered by the reform (McLaughlin & Mitra, 2001). This explains why some educational reform planners ‘blame’ teachers for being suspicious about, uncommitted to and unwilling to implement change that reform projects aim at (Ravitch & Vinovskis, 1995; Woodhead, 1995).

Therefore, when reformers ask teachers to teach for understanding where the students are expected to learn by being given the opportunity to actively construct knowledge, rather than have knowledge transmitted to them in teacher dominated classrooms (like in the U.S. reform plan, GOALS 2000) teachers are asked to teach in ways that they never sought before and were never taught by themselves. Here teachers need to go through a process of fundamental change that requires them to construct a new knowledge base, adopt new conceptions and acquire new beliefs about teaching and learning (McLaughlin in Hargreaves & Evans, 1997).

3.3 A Perspective on Teacher Development

According to the findings of cognitive psychology, one constructs knowledge by interpreting new information through the lens of his/her existing schema (Hargreaves, 1989). Therefore, teachers will also need to question their current practices and beliefs, and then to think critically through the change (Ainscow, Howes, Farrell, & Frankham, 2003), rather than be ‘told’ what to do in their classrooms and with their students, before they can assimilate what the reform is about (Elliot, 1997). In this kind of transformation, teachers will not only need to learn new concepts about learning and teaching, but will also need to unlearn practices and beliefs that they have been committed to all through their professional lives. Moreover, putting teachers through pre-defined training-packages and “laboratory-based” workshops which assume that teachers can simply transfer the knowledge they are exposed to into their real life classrooms has proven ineffective in achieving the kind of transformation that is needed for

long term sustainable change to take place (Borko et al., 2000; Hargreaves, 1989; McLaughlin in Hargreaves & Evans, 1997; Prawat, 1992).

Literature on teacher development and investigations of what works and what does not work has led professionals in this field to present a new conception of teacher development that opposes the assumption that teachers learn new teaching practices through direct instruction given to them in a series of workshops or at conferences and seminars. In this kind of approach to teacher development teachers are not given the time and opportunity to assimilate the reform or the desired changes, but are expected to change their knowledge, beliefs and conceptions about teaching and consequently their actions in the classroom after being presented with the techniques and procedures of the reform in traditional top-down “teacher-training” strategies (Darling-Hammond & McLaughlin, 1995; Prawat, 1992).

Researchers seem to agree that teachers, like their students, need authentic learning opportunities where they are engaged in experiencing, analyzing, solving problems, and working together. Through these opportunities, teachers will be encouraged to rethink their views on issues related to their role, investigating their beliefs about teaching and assimilating theories that inform the desired change. This approach is based on the assumption that if a teacher believes that teaching is “transmission” of knowledge and that learning is “absorption” of knowledge, no amount of presentations or demonstrations of student-centered learning could help the teacher to incorporate this approach in his/her classroom (Lieberman, 1995; Prawat, 1992).

For example, Prawat (1992) outlines four areas of teacher beliefs that need to be changed before teachers can engage in a constructivist approach to teaching and learning. First, teachers need to change their conception of the student and the curriculum as static. This view results in teachers’ devotion of much of their time and effort in delivering the content of the curriculum to their students rather than in providing opportunities for meaning making. Another set of beliefs that need to be changed is what Prawat terms as “naïve constructivism”. Teachers need to realize that activity is not equal to meaningful learning. Therefore, it is not

enough to plan for and implement activities in a lesson; what really counts is how and to what extent did the activity impact student learning. The third area of belief change is related to the distinction between comprehension and application. Prawat explains that even though this distinction has been made legitimate by various taxonomies, comprehension cannot take place without application and visa versa. The last set of beliefs is related to the way teachers regard the curriculum. Curriculum needs to be regarded by teachers as "... a matrix of ideas to be explored over a period of time (rather) than as a road map" (p.358). These beliefs influence teacher behaviour and, accordingly, they need to be considered with high priority on the conceptual change list.

In their attempt to explain the complexity of changing teachers' practices in their classrooms, Korthagen and Lagerwerf (1996) introduce a developmental theory of the levels in learning about teaching that the teacher needs to go through before any real change in classroom practices takes place. The researchers base their theory on the work of two Dutch researchers, Van Hiele and his wife Van Hiele-Goldof, which dates back to the 1950s (Korthagen & Lagerwerf, 1996, p. 162). The theory demonstrates the relationship between the cognitive, the affective and the behavioral aspects of the way humans function.

According to Korthagen and Lagerwerf there are three levels of teacher knowledge: the Gestalt level, the schema level and the theory level, and teachers in general operate on the Gestalt level where the decision making process is governed by the perceptions and interpretations of the teacher of a certain context or situation. These Gestalts are formed through past experiences in similar concrete situations, mainly what the teacher experienced as a student and as a teacher. So to start with the teacher's reaction in the classroom is a result of a Gestalt that the teacher has of the classroom with the teacher's role and the student role already defined in it. For this Gestalt to change or to be modified the teacher needs to go through a process of "schematization" where the Gestalt is thought about or scrutinized. This process is usually triggered when the teacher is asked to explain what he/she is doing or when the teacher is faced with a problem or a situation that the present Gestalt is not finding a solution to. "The schematization process can often be encouraged by talking about what one is

seeing, thinking and doing and by looking precisely at what was self-evident” (p.167). Through schematization the teacher becomes able to distinguish and name the different elements of the existing Gestalt and later find relationships among these elements, i.e. form a schema of teaching which is how the teacher understands teaching and learning. Through further experience and reflection the teacher can develop new and conscious conceptions of teaching, provided that the new experiences are appropriate, and “After some time, the schematized knowledge related to an area can often become self-evident and the schema can be used in a less conscious, ‘intuitive’ way” (p.167). This process of “reduction” allows the teacher to concentrate less on the relevant schemata and pay more attention to other details in the context. Through reduction the teacher’s knowledge becomes symbolized and this allows for “abstraction” of knowledge. When the teacher can abstract his/her knowledge about teaching and learning then the teacher can provide explanations for the components of the schema and find connections between them, and this may lead to “theory building”. The teacher’s schema of teaching may be a collection of schemata each related to a different area or element in the conception of teaching, and when the teacher attempts to organize these schemata in a coherent and logical manner then the teacher is considered to be at the theory building level. If teachers succeed at achieving this level of thinking then their classroom behaviors will be informed by new Gestalts that are well-thought out and consciously developed and that might be more effective in terms of student learning.

This brief explanation of Korthagen and Lagerwerf’s theory can demonstrate how difficult it is for the teacher to adopt and adapt to a new theory and it demonstrates how much time and effort is needed for new learning to take place. This adds evidence to the complexity of teacher development process and it underscores what researchers and educators have confirmed about the difficulty involved in convincing people to change their beliefs, especially the tacit ones that govern our behaviors in demanding and stressful contexts, such as the classroom. Accordingly, teacher development programs need to adopt a new approach where teachers are encouraged to identify what it means to know a subject matter and what it takes to develop this knowledge and then rethink the

effectiveness of these beliefs, and for this, teachers need to be engaged in a series of activities that involve discussion and reflection (Prawat, 1992).

In the same line but with a different approach, Day (1999) states that teacher development is much more than teacher training; since the former regards teachers as professionals and encompasses development for the cognitive as well as the psychological, and the latter regards teachers as technicians concerned only with delivering the curriculum.

In his book *Developing Teachers* (1999), Chris Day explains that teacher development programs generally "... emphasize its principal purposes as being the acquisition of subject or content knowledge and teaching skills" (p. 4). However, he extends the definition of professional development to include:

"...all natural learning experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual, group or school and which contribute, through these, to the quality of education in the classroom. It is the process by which, alone and with others, teachers review, renew and extend their commitment as change agents to the moral purposes of teaching; and by which they acquire and develop critically the knowledge, skills and emotional intelligence essential to good professional thinking, planning and practice with children, young people and colleagues through each phase of their teaching lives" (p.4).

Day's complex and extensive definition includes all aspects of teacher development that need to be addressed explicitly within any educational reform plan for its goals to be achieved and maintained, yet its main contribution is in the implicit redirection of the "action" of development to the teachers themselves. Teacher development is defined in the "active" tense rather than the "passive" tense, where the teachers: renew, review, acquire, develop, think, plan and practice. This highlights a major fallacy in most professional development plans that have not succeeded in developing education in the direction that, the well-informed and well-intentioned, planners have intended for.

Therefore, an educational reform plan needs to take into account, among other factors, that "...teachers are the indispensable agents of educational change" (Fullan & Hargreaves, 1996), and that "Improving the quality and effectiveness of teachers' professional learning has been identified as an essential underpinning to raising standards, implementing new ideas about teaching and learning and managing change" (McLaughlin in Hargreaves & Evans, 1997).

However, a teacher professional plan that addresses all of Day's explicit and implicit principles is not easy to implement. Such a plan needs to involve teachers in a process of conceptual change that will allow for the accommodation of the reform into their cognitive structures rather than the superficial assimilation of the reform's techniques. Moreover, to ensure the sustainability of the reform teachers need to apply what they have learnt within professional communities that can provide teachers with the emotional and cognitive support that they need. A third condition for this kind of professional plan is an educational policy that is committed to aid teachers to develop in all aspects and to ensure that all educational contexts strive towards genuine and lasting change.

3.4 Conceptual Change: The Core of Teacher Development

As mentioned above, researchers in the field of teacher development criticize programs for staff development that are based on the assumption that providing teachers with prescribed skills and teaching recipes will produce better teaching practices and that the teachers will accept, acquire and adopt the skills and methods presented to them (Ramsden, 1992). The research and experience of many staff developers suggest that the participants will question the feasibility of the new methods presented, defend the methods that they are using and at best use the new methods mechanically resulting in superficial changes in practices that will only reduce the effectiveness of both teaching and learning (Gibbs, 1995). Research in this area shows that teacher conceptions about teaching and learning influence teaching and learning practices in the classroom and that any real change in these practices needs to be approached with a plan that aims at changing the beliefs and concepts that the teacher has about them (Gibbs 1995; Ho, Watkins & Kelly, 2001; Tillema, 2000; Trigwell & Posser, 1999).

Teachers' beliefs related to teaching, subject matter and the students influence their practices in their classrooms, and the literature identifies beliefs related to these areas that affect teaching behaviour and student learning negatively (Hativa, 2000); some of these beliefs are:

- Perceiving teaching as transmission of knowledge: Teachers that believe that their role is restricted to delivering knowledge to their students tend to concentrate on developing their knowledge in the subject matter and to put little effort in investigating pedagogical issues that could make their teaching and their students' learning more effective.
- Putting the responsibility of learning solely on students: Teachers that believe that teaching is the delivery of knowledge do not take responsibility for students' problems in learning. These teachers tend to attribute students' failure to learn to factors other than their teaching practices, such as low-motivation of students, low entry level of students, or other contextual factors like the lack of resources in the physical environment.
- Believing that it is ultimately essential to cover all content: These teachers' main concern is to deliver all the material to the students in the time available, even if it is at the expense of giving attention to student needs and student learning.
- Viewing a long teaching experience as sufficient for professional development: Some traditional teachers feel that professional development is only necessary for young and new teachers, and believe that a long experience in teaching is enough to ensure effective teaching practices.

As a result of a series of studies that looked at 24 university teachers' conceptions of teaching and learning and at approaches to teaching, among other variables, Trigwell and Posser (1999) identify six conceptions of teaching and five approaches to teaching where each approach was related to one or more of the conceptions (refer to Table 2). Their research concludes that teachers adopt a range of approaches to teaching that are consistent with their perception of the teaching situation, and that there is substantial coherence between the teachers' conceptions of teaching and learning and their approaches to teaching (p. 156).

Teaching Conceptions	Approaches to Teaching
A- Teaching as transmitting concepts of the syllabus	A- A teacher-focused strategy with the intention of transmitting information to students.
B- Teaching as transmitting the teacher's knowledge.	B- A teacher-focused strategy with the intention that students acquire the concepts of the discipline.
C- Teaching as helping students acquire concepts of the syllabus.	C- A teacher/student interaction strategy with the intention that students acquire the concepts of the discipline.
D- Teaching as helping students acquire teacher's knowledge.	C- A teacher/student interaction strategy with the intention that students acquire the concepts of the discipline.
E- Teaching as helping students develop conceptions.	D- A student-focused strategy aimed at students developing their conceptions.
F- Teaching as helping students change conceptions.	E- A student-focused strategy aimed at students changing their conceptions.

Table 3.2: Teaching Conceptions and Approaches to Teaching (Trigwell & Posser, 1999).

More specifically, the research findings show that teachers who “adopted a student-focused approach to their teaching of a topic conceived of their teaching and learning of the topic in more complete ways (i.e. students’ understanding of the content was prominent and the focus was on the relationship between teacher, students and content) while teachers who approached their teaching from a teacher-focused perspective conceived of their teaching and their students’ learning in that topic in less complete ways (i.e. teaching was seen in terms of the teacher alone and more particularly in terms of what the teacher does)” (Trigwell & Posser, 1999, p. 154). The question that follows from these findings is: how to make teachers’ conceptions of teaching and learning more compatible with the approaches that are believed to foster better student learning?

Any attempt to change teachers’ conceptions needs to take into account the “congruence” hypothesis that was put forward by Tillema (1994). The hypothesis states that new knowledge will be accepted by the professional in as far as it is congruent with his/her pre-existing conceptions about teaching. Tillema’s research results support the congruence hypothesis and teachers’ beliefs were

found to affect the knowledge acquisition process, where the more the pre-existing beliefs corresponded with what was presented to the teachers, the more likely learning was to take place.

The argument here is that the teacher's set of conceptions and beliefs about teaching and learning may act as a constraint on adopting practices that conflict with these beliefs or concepts, even when the teachers positively value the innovations or reform and at times believe that they are implementing it in their classrooms (Gregoire, 2003). Teachers might assimilate new beliefs into what they already know about learning rather than revise their initial beliefs, so what is needed is a process of "accommodation" rather than a process of "assimilation" (Piaget, 1977), otherwise, the teacher training might result in teachers adopting new practices superficially rather than adopting the epistemology of the reform leading to negative results on student learning.

Epistemology is defined as the set of beliefs that one has about the nature of knowledge and knowledge acquisition. This set of beliefs has an influence on the cognitive processes of thinking and reasoning (Hofer & Pintrich, 1997; Schommer, 1995; Van Manen, 1995) and harbor the teacher's conceptions about learning and teaching and respectively affect the teacher's decision making and decision taking processes related to their preferred ways of teaching and learning and the roles of the teacher and the student (Chan & Elliot, 2004, p. 819).

According to Schommer (1990, 1995) a personal epistemology is a belief system that consists of five dimensions: the structure of knowledge, the certainty of knowledge, the source of knowledge, the control of knowledge acquisition and the speed of knowledge acquisition, and the a teacher's epistemological beliefs fall on a continuum ranging from naïve epistemologies to sophisticated epistemologies. A teacher with naïve epistemologies generally believes that knowledge is simple, certain and unchanging and that knowledge resides in the authorities and can be acquired quickly or not at all. A teacher with sophisticated epistemologies believes that knowledge is complex, uncertain and tentative and that knowledge could be learnt gradually through reasoning processes and can be constructed by the learner (Schommer, 1995). These epistemological beliefs

influence the teacher's choices that are related to teaching strategies and teaching practices (Chan & Elliot, 2004; Hashweh, 2003), and their shaping and development are influenced by the educational environment and academic practices in the cultural context (Chan & Elliot, 2004).

Accordingly, it would seem logical for a teacher development plan to start from these epistemological beliefs, since they are the origin of the teacher conceptions, and it is these conceptions that mainly influence the teacher's classroom practices. However, "...it seems that one can not easily shake loose from an epistemology" (Van Manen, 1995, p. 43), and "teacher education literature shows that many teacher education programs barely scratch the surface of ... teachers' entrenched beliefs" (Hill, 2004, p.29). This difficulty could be explained by the fact that beliefs about learning and teaching are both implicit and complex. Teachers learn about learning from a life long experience as students in schools and in colleges or universities, and each teacher's set of beliefs are formed from diverse cognitive and emotional experiences that render it complex and unique. Understanding and changing these beliefs could be a stressful and demanding endeavor that teachers prefer to avoid while overwhelmed by the daily demands of their profession. However, even if it is difficult to change teachers' conceptions (Holt-Reynolds, 2000; Schifter & Simon, 1991) educators still need to understand the mechanisms involved in belief change and how beliefs affect the interpretation of reforms in order to increase the chances for the success of reform.

3.5 Theories of Conceptual Change

In order to understand and specify mechanisms that can be employed to effect significant and lasting change in teachers; researchers have proposed different models for changing conceptions (Gregoire, 2003; Hill, 2004; Ho, 2000). These models of change were informed by a number of theories about change; the most influential of these theories are Argyris and Schon's theory of transition between theories-of-action (1974) and Posner, Strike, Hewson and Gertzog's theory of conceptual change (1982).

3.5.1 Argyris and Schon's theory of conceptual change (1974): According to Argyris and Schon (1974), it is a practitioner's theories-in-action that determine his/her behavior, and "...a theory of practice consists of a set of interrelated theories-of-action that specify for the situations of the practice the action that will, under relevant assumptions, yield intended consequences" (p.6). Therefore, to arrive at a certain 'consequence' in a certain 'situation', the 'action' taken by the practitioner is determined by a number of 'assumptions'. It is the practitioner's assumptions about self, others and the situation that govern his/her 'theory-in-use' which is constructed through experience and which is evident in the practitioner's behavior in a certain situation. This theory-in-use may or may not be compatible with the practitioner's espoused theory of action, i.e. the theory of action that he/she gives allegiance to and which upon request communicates to others. This explains why the theory-in-use and the assumptions that guide it are considered as tacit knowledge to the practitioner and need to be elicited before being reviewed and modified.

Argyris and Schon explain in their book that there are two kinds of learning, single-loop learning and double-loop learning. In single-loop learning the practitioner learns strategies of action that only support the assumptions that inform the present theories-in-use. This is opposed to learning that fosters the investigation of assumptions to be determined whether effective or ineffective, and that may lead to their modification and to real change in the theories-in-use and in the practitioner's actions. For double-loop learning to take place the practitioner needs to be confronted with dilemmas that either take place suddenly or emerge gradually through interaction with others. The main kinds of dilemmas are:

- Dilemmas of incongruity: Here the practitioner is faced with an experience that brings to the surface the incongruity between espoused theory and theories-in-use. The practitioner's self-image becomes at stake and revision of underlying assumptions of theories-in-use becomes essential to make these theories more congruent.
- Dilemmas of inconsistency: Here the assumptions that support a theory-in-use become contradictory or incompatible. Again there will be a need for revising the assumptions to gain consistency.

- Dilemmas of effectiveness: Here the action guided by the theory-in-use proves ineffective in arriving to the desired consequences or goals, and again a revision process becomes necessary.

These researchers also explain that practitioners value constancy in their theories-in-use, and that they may resort to using defense mechanisms that protect them from these dilemmas and the result is theories in use that are self-maintaining and immune to change. Some of these defense mechanisms are:

- Separating the two types of theories, i.e. the theories-in-use and the espoused theory, or compartmentalizing each in a different place or situation.
- Becoming selectively inattentive to evidence that highlights the dilemmas, or adopting strategies that suppresses this evidence.
- Introducing changes to the espoused theory to become more congruent with the theory-in-use, or making minor changes in the theories-in-use.

These defense mechanisms underscore the difficulties involved in the theory building (or rebuilding) process, or the conceptual change process; especially that constructing or reconstructing theories-in-use is intellectually demanding and evokes emotions of confusion, and dismay.

Argyris and Schon (1974) describe two models of conceptual change. Model I is characterized by the lack of publicly testing the theories-in-use and the result is creating self-sealing processes that protect the practitioner from negative feelings, such as feelings of incompetence. On the other hand, public testing of theories is a major tool for the more effective Model II theory building process. This process is based on the provision of valid information about the theories that is free of bias and inaccuracy, on maximizing free choice of behavior that does not exceed the practitioner's capacities, and on taking responsibility for these chosen behaviors. This creates an environment in which the practitioner can openly or publicly test his/her theories and their underlying assumptions, and the result is an openness to possibilities and a higher level of willingness to explore new practices or actions with a minimal influence of the above mentioned defense mechanism, therefore, facilitating double-loop learning. Model II highlights the importance of creating a safe and authentic environment with egalitarian

relationships among its members. This kind of environment will be further discussed later in this chapter.

Argyris and Schon's theory has influenced the professional development of practitioners in many fields, such as engineering, medicine and education. However, although it was introduced in 1974, we still find researchers and educationists grappling with ways to foster double-loop learning and to make Model II theory building process a reality. Although, this theory is very popular in the field of professional development, applying it into the practical world is still proving difficult. Some researchers attribute this to the fact that the theory is mainly concerned with the process of change within the individual and the forces that act on the individual, rather than the conditions or requisites necessary to start the change cycle (Ho, 2000). Other researchers regard the theory as 'cold', i.e. over cognitive in its approach with insufficient discussion to the emotional aspects related to the highly demanding process of conceptual change.

3.5.2 Posner, Strike, Hewson and Gertzog's theory of conceptual change

(1982): These theorists introduced another influential theory, particularly in the field of science education, for teaching for conceptual change. These researchers explain that there are two aspects that need to be addressed for conceptual change. The first is the conceptual context of the learner where learning takes place. Posner et al. call this the 'conceptual ecology' which is the learner's cognitive structure with epistemological beliefs and knowledge that is influenced by institutional and social sources, and that influences the learner's conceptions and misconceptions about a certain field of knowledge.

The second aspect is the set of conditions that are necessary for conceptual change to take place. These are:

- Dissatisfaction with current conceptions: Realizing that existing conceptions are ineffective is the first and most important requisite to initiate conceptual change.
- Intelligibility of a new conception: Before exploring and adopting a new conception the learner needs to have acquired a certain level of

understanding of the concepts of the change and their underpinning principles.

- Plausibility of a new conception: After understanding it, the learner needs to feel that the conception makes sense and can be applied in the relative context.
- Fruitfulness of a new conception: The learner must also be convinced that adopting the new conception will lead to better results than the old conception.

Therefore, within a certain cognitive ecology and under certain conditions, if a learner is faced with a conceptual conflict, i.e. if a learner realizes that a present conception is not yielding the goals aimed at, then a process of conceptual change will be initiated, and the old conception will be replaced by a new conception that is believed to be more effective. This theory highlights the importance of restructuring the learner's conceptual ecology that is done through a process of accommodation, rather than assimilating new knowledge within existing ecologies.

Posner et al.'s theory is regarded as being limited to 'conditions and requisites' for change; it specifies the qualities of a new conception that has the potential to replace an old one with little reference to the actual change process that takes place within the learner (Ho, 2000). Another criticism of this theory is that it is over cognitive in its approach, i.e. it does not account for motivational and affective factors, which according to research, have a major influence on the process of conceptual change (Pintrich, Marx, & Boyle, 1993). Therefore, there is a need for a more comprehensive model of conceptual change that addresses both the cognitive and the affective aspects of this kind of change; the next section will present some researchers' attempts at such models.

3.5.3 The cognitive-emotional approach to conceptual change: More recent research on teacher conceptual change claims that there is a need for more 'hot' models (Pintrich et al. 1993) that take into account the role of teachers' emotions in the process of changing beliefs and conceptions about teaching and teaching practices. Since teaching is emotionally engaging, the process of conceptual

change needs to address the beliefs that influence or generate emotions (Hargreaves, 1998) and teachers need to be trained in ways that would enhance their ability to deal with their emotions i.e. that would enhance their emotional intelligence (Day, 1999). This emotional literacy is not only necessary for teachers to deal with difficulties that they face in their classrooms, but also to deal with the demanding process of conceptual change.

The term emotional intelligence (EQ) was first coined by Daniel Goleman (1995), and it includes five domains of abilities: i) knowing one's emotions (self-awareness or recognizing a feeling as it happens), ii) managing emotions (handling feelings to keep them appropriate), iii) motivating oneself, iv) recognizing feelings in others, and v) handling relationships. The first three domains of abilities appear to be related to what has been discussed on the role of emotions in conceptual change. There is little research on developing teachers' emotional intelligence, but researchers have tried to understand how educational reform affects teachers' emotions and, consequently, teachers' commitment to reform and change.

According to Pintrich et al. (1993), "...the standard individual conceptual change model describes learning as the interaction that takes place between an individual's experiences and his or her current conceptions and ideas", but researchers who take a social constructivist approach to the process of conceptual change take the position that conceptual change is influenced by personal, motivational, social and historical processes. Therefore, when teachers are asked to make changes in their classroom practices, this is not an exclusively cognitive process, but an emotionally laden process that involves teachers' professional values and norms that are an integral part of their 'sense of self', 'identity', or 'self-understanding' as Kelchtermans (2005) prefers to call it. This researcher identifies 5 components in a teacher's 'self-understanding': *self-image*, the way the teacher sees her/himself as a teacher; *job motivation*, the motives that make a person choose to become a teacher; *future perceptions*, the teacher's expectations about the future; *self-esteem*, the teacher's evaluation of his/her job performance; *task perception*, the way the teacher defines the role and duties of a good teacher. In the context of a reform, self-esteem is the most important component because

it reflects the balance between the teacher's self-image and task perception, i.e. between how the teacher sees him/herself as a teacher and the teacher's beliefs and norms about good teaching. If the reform demands changes in task perception then the teacher's self-esteem will reflect an imbalance and this "...will trigger intense emotions of doubt, anxiety, guilt, (and) shame" (Kelchtermans, 2005, p.1001).

In order to gain insight on how teachers perceive their work in a context of reform, van Veen and Slegers (2006) examine 6 teachers' appraisals of their work and emotions in the context of a Dutch educational reform. The researchers draw on Lazarus's cognitive social-psychological theory of emotions that focuses "...on the interactions and relations between the individual and the environment, and how these relations give rise to different emotions" (van Veen and Slegers, 2006, p. 87). A basic assumption of this theory is that the arousal of emotions is dependent on the individual's appraisal of relevant events in a certain situation. These researchers also explain that the process of appraisal is influenced by the way the teacher perceives her/himself and by the teacher's orientation, i.e. how the teacher thinks he/she *should* work. Teachers who experience congruence between the goals of the change and their professional orientation tend to regard the change in a positive light, while those who experience incongruence between their orientation and the change react negatively to it. Van Veen and Slegers's study was carried out in the context of a reform that asked teachers "to adopt a more process-oriented model of teaching, to serve as the facilitators of student learning, and in so doing emphasize active learning and responsibility on the part of the student" (p. 94). The results of the study showed that teachers' reactions to the change varied from "being angry and anxious to being happy and satisfied" (p.94). Teachers who were closer to a student- or a learning-centered orientation, and therefore, appraised the change as congruent with their professional orientation, reacted with positive emotions while those with a teacher- or content-centered orientation appraised the change as incongruent to their professional orientation and this was the cause of feelings of anger and anxiety. This study adds to our understanding of the impact of reform on teachers' emotions and how these are related to the teacher's beliefs and perception of the reform.

To account for the limitations of the theories that presume a very rational process of cognitive change, Gregoire (2003) proposed the Cognitive-Affective Model of Conceptual Change (CAMCC) which is a process-based model that specifies mediators of belief change to include the role of emotions, appraisals, motivation and cognition in conceptual change.

Gregoire presents his model through a series of steps and explains that each step could lead to more than one path in the process, depending on related factors in the teacher and in the context of the process. After presenting teachers with a strong and intelligible message for change, teachers could take one of two paths. Teachers with neutral and positive feelings toward the change will not be motivated to go through the challenges of systematically processing the change and this will lead to 'heuristic processing', and the result is 'yielding' to the change without profoundly thinking it out, i.e. the change is assimilated and only superficial belief change takes place. Gregoire notes that this "...explains why many teachers who believe they have changed their beliefs, have, in fact, not accommodated the new ideas" (p.168).

As for teachers with negative feelings, Gregoire explains that when teachers are presented with a message of change, feelings of stress and anxiety are not necessarily wholly negative, but could lead to more profound learning and change because they are the basis for feeling challenged. Teachers that experience negative feelings toward the change can also take one of two paths. Teachers who have low self-efficacy and lack the abilities necessary for systematic processing will feel highly threatened by the change and will resort to avoiding the challenges of profound learning, and the result will be yielding to 'heuristic processing' and accordingly to 'assimilation and superficial belief change'. Teachers who have high levels of self-efficacy in their teaching abilities and who feel that they are supported by colleagues and by a strong base of subject-matter knowledge will be 'motivated' to take the challenge of systematically processing the reform message.

Systematic processing is pivotal in this model of conceptual change. Although it does not ensure that belief change will take place because there might be other

factors in the message and in the teacher's previous conceptions that can hinder change, it explains how the message is to be processed if "significant, lasting belief change" is to take place.

Since this model highlights the role of teacher self-efficacy and abilities, it proposes that these need to be addressed within the process of conceptual change. Teachers' self-efficacy can mainly be enhanced by experiencing success in helping students and by vicarious experiences, i.e. watching others succeed in implementing the change. Therefore, it is necessary that teachers be given the opportunity to experience incorporating the changes in their classrooms and to be given time to think through and discuss these experiences with colleagues and experts. At the same time, teachers need to be supported by constructive feedback that enhances their opportunities to succeed. These are suggested ways to increasing teachers' self-efficacy in the process of conceptual change, yet Gregoire admits that further research on how to enhance teacher self-efficacy is still needed.

3.6 Educational Communities and Conceptual Change

A community that fosters professional development and conceptual change is characterized by being both supportive and intellectually challenging (Grossman, Wineburg, Woolworth, 2001). Educational reform and conceptual change are highly demanding on teachers both cognitively and emotionally, and when teachers engage in a process of redefining and restructuring their beliefs and concepts about teaching and learning, they feel that their professional identity is being threatened and consequently experience feelings of confusion and anxiety. Researchers who have studied teacher development with its problems and difficulties stress the need for a collegial community that facilitates the challenging process of intellectual change (Grossman et al. 2001; Halliday, 1998; Levin, 1995; Little, 1990, 1999; McLaughlin in Hargreaves & Evans 1997; McLaughlin & Talbert, 2001; Nias, 1998).

Argyris and Schon (1974) state that a practitioner needs the support of a community, with egalitarian relationships among its members, to be able to openly test his/her theories and their underlying assumptions without being

influenced by defense mechanisms that hinder conceptual change; however, existing theories on conceptual change have been criticized for their lack of theoretical reasoning about the "...role of the individual in a learning community that supports or resists instructionally guided conceptual change" (Pintrich et al. 1993, p. 173), and even Strike and Posner (1992) state that their original theory was over focused on the epistemological factors of the learner's ecology and lacked consideration of the impact of "the institutional and social sources" on the learner's conceptual ecology.

In a study that examined the transition process from a traditional model of teaching to a problem-based learning model, Kolmos (2002) explains that although change in education can occur at many levels, there are fundamentally two basic levels: the individual level -which has already been discussed in previous sections of this chapter- and the systematic level "... which focuses on changing the overall foundation of the educational program by instituting new objectives and methods of teaching... along with efforts aimed at cultural change" (p. 63). Therefore, to arrive at change from one model to another it is not enough to change the current teaching methods, but there is also a need to make changes at the organizational level and to the culture of the educational environment. Among the elements that need to be addressed at the organizational and cultural levels Kolmos (2002) highlights the need to facilitate the development of 'colleague cooperation', and notes that it is not easy for teachers who are used to working individually and independently in the traditional model to incorporate in their practice an active participation with their colleagues that is based on reciprocal relationships. Even if difficult and complex, this kind of culture is indispensable, and change will not be easy to come about unless teachers are involved in regular discussions about their experiences with change. Kolmos's research demonstrates that introducing new models of teaching is not enough, and that it is crucial to encourage teachers to critically reflect on elements in their original models before they can adopt the elements of the introduced model.

Similarly, Hill (2004) proposed the Developmental Education for Conceptual Change (DECC) teaching model that combines Strike and Posner's (1992) theory

of conceptual change with the Developmental Instruction Model (Knefelkamp, 1981). Hill's model incorporates key ideas of these models with the autonomy-supportive education and the community of inquiry approach to teaching. Hill (2004) explains that the aim of a community of inquiry is to tackle a problematic issue in order to arrive at deeper understanding and more informed judgments in relation to the issue in question. This is usually achieved through dialogue among members of the community who enjoy equal status and are guided by mutual interests. According to Hill (2004), the characteristic of mutual respect inherent in the community of inquiry encourages learners (who are teachers in this context) to support each other in asking questions, to become more comfortable about taking risks, and to voice their opinions more candidly. This will eventually encourage teachers to engage in classroom practices that confront traditional beliefs.

Day (1999) also states that if "...the social context (is) unfriendly, then it is likely that the (teachers' capacity to learn) will be minimized" (p. 73). Day cites research which indicates that positive interpersonal relationships within collaborative cultures are crucial to teacher professional development.

Furthermore, McLaughlin (1997) explains that maybe the most important contribution of teacher learning communities is in helping teachers 'unlearn' old assumptions, beliefs, and consequently practices. Whether in the form of academic department meetings or interdisciplinary teacher teams or cross-role groups, discussion among teachers and other professionals in education provides an arena for questioning, reflection, and problem solving that could prove highly effective in teacher professional development. Teachers need safe and supportive environments that help them to voice their anxieties and confusion during reform in order to be able to deal with them and eventually overcome them.

Levin (1995) also adds evidence to the crucial role that discussions among teachers play in teachers' learning. In Levin's research, discussion seemed to influence teacher learning on different levels, ranging from clarifying and elaborating their thinking about a particular issue to acting as a catalyst for reflection and a tool for promoting metacognition. Levin adds that teachers who

did not engage in discussion were more likely to reiterate their original thinking about the issue under study, and this solidified and reinforced their initial responses and allowed little opportunity for teachers to gain new perspectives and to engage in real change in their thinking.

This common agreement among educators that social interaction among peers fosters learning seems to be rooted in theories of developmental and social psychology. Piaget (1932) claimed that peer interaction poses critical cognitive conflict which acts as a catalyst for change; when teachers engage in discussion the different perspectives introduced could provide cognitive conflict that needs to go through a process of equilibration by restructuring existing schemata related to the issue being discussed. Moreover, Vygotsky (1934/1978) claimed that social interaction not only initiates change but also shapes the nature of change, and that higher mental functions, such as logical memory and conceptualization, originate first in the social plane and then in the intrapsychological plane. Accordingly, social interactions and group discussions among teachers could promote learning and development.

However, McLaughlin (1997) cautions that putting teachers and educators in a room once or twice a week will not ensure that real discussion, the kind that fosters professional development, will take place. Meetings characterized by administrative and bureaucratic procedures will not lead to authentic discussions that could lead to real learning.

Therefore, researchers agree that the quality of teaching is influenced by the quality of relationships among teachers outside the classrooms, but the question is how one can build professional cultures of teaching that could help in implementing reform and introducing change in classrooms. According to Hargreaves and Evans (1997), these professional cultures "...cannot be bullied into existence" (p.4); it takes care and commitment over long periods of time to build trust among the teachers in the school which is a necessity for the establishment of these cultures.

Little (1990), outlines conditions that are imperative for the establishment of these cultures: emotional connectedness, moral support, reciprocal help and mutual trust all in the pursuit of a common cause, and Westheimer (1998) discusses the five common themes in theories of community, namely, interdependence, interaction/participation, shared interests, concern for individual and minority views, and meaningful relationships. However, very few researchers explain the processes of forming and sustaining a teacher community that is characterized by these conditions and themes.

Through their experience with a professional development project Grossman et al. (2001) present a model of teacher community. These researchers outline the maturation process that a 'group of teachers' go through before they become a 'community of teachers'. This model comprises four dimensions: i) formation of group identity and norms of interaction, ii) navigating fault lines, iii) negotiating the essential tension, and iv) communal responsibility for individual growth. Through the fostering of a productive tension that has dual foci on student learning and teacher learning, teachers go through a process of transformation that allows them to participate more effectively in their learning community and to be more open to learning from the other members of the community. Teachers start by identifying with subgroups, such as their departments, and their sense of individuality overrides their responsibility to the group, but eventually they develop a sense of identity to the whole group and recognize that the multiple perspectives introduced by the group members are a source of enrichment for their discussions and an opportunity to examine other avenues of thought that each teacher alone might not be aware of. This leads to a new more open interaction among the group members and a feeling of responsibility for the development of the whole group. Moreover, these researchers explain that teachers start by avoiding conflict and disagreement, but as they appreciate the contributions made by the divergent views, they learn to put their differences into productive use, and eventually teachers recognize that teacher learning and student learning are two sides of the same coin, and they become committed to both personal growth and community growth.

The kind of community that Grossman et al. (2001) advocate is, however, not easy to accomplish in schools. The nature of teachers' work tends to foster isolation rather than interaction (Little, 1990; McLaughlin in Hargreaves & Evans, 1997), and teachers' work load and time constraints are main challenges that face the development of effective communities of learners in schools. This mandates a conscious effort from decision makers in an educational system to provide the necessary support for the development and sustainability of such communities, and this could be done in the form of policy that both encourages teachers to meet and discuss their thoughts and concerns openly, and that reduces the pressures of bureaucracy and administration.

3.7 Educational Policy and Conceptual Change

According to Darling-Hammond (1990), policy makers tend to over invest in developing texts and materials for teachers to use in their practice and in creating control systems for teachers, and this is usually at the expense of developing teachers' knowledge. As discussed earlier, teachers are the implementers of reform, and if reform is delivered to them without the opportunity to interrogate its principles and to assimilate its concepts, then reform will not lead to its desired goals. Based on this, Darling-Hammond (1990) proposes that every educational reform plan policy needs to be paralleled with a teacher reform policy. Since teachers teach from what they know, then policy makers need to pay attention to teacher knowledge. Moreover, gaining new knowledge that will affect teaching practices is a slow and difficult process, so policy makers must create the necessary conditions, support and initiatives that allow teachers the opportunities they need to construct and reconstruct their thinking about teaching, before they can change the way they teach. More practically, this would mean a better communication of the policy to the teachers, and an ongoing professional development system that integrates supervision and evaluation (Darling-Hammond, 1990).

Hargreaves and Evans (1997) go further by suggesting that teachers should be included all through the reform phases, starting from its creation to its implementation. This will help diminish feelings of "...stress, loss of control and

mechanical obedience (among teachers)” (p.4), and will encourage risk taking and “intellectual adventure”.

Similarly and with a more explicit constructivist approach, McLaughlin (1997) calls for “Capacity-building policies (that) view knowledge as constructed by and with practitioners” (p. 80). McLaughlin explains that teachers’ knowledge can not be enhanced through conveying solutions to teachers in a top-down manner. Rather teachers’ professional development needs to be integrated in their daily routine in schools and span all through their careers. McLaughlin (1997), like Hargreaves and Evans (1997), suggests that teachers need to be involved in all aspects of educational policy starting from what students should know, to how students should learn, to how student performance could be assessed.

Another important issue related to policy is that sometimes new policy can be incompatible with some aspects of previous policy, and this can lead to further confusion and stress among teachers. Hopkins and Levin (2000) advise that policy needs to be both “system-wide” and “system-deep”. System-wide policy is informed by the same values base and is coherent with the overall framework of policy. System-deep policy, which is more related to our discussion, refers to “...the policy’s ability to create a framework for implementation that leads to changes in practice” (p.20). Therefore, policy also needs to explicitly include issues of implementation that aid teachers through the process of change. These researchers present key findings from research on school improvement in the form of guidelines for policy makers who want to raise the possibility of effecting change in an educational system; some of these are:

- Focus on student achievement as much as on curriculum and organization; i.e. state in precise manner how the proposed changes will impact teaching practices and how these will improve student learning.
- Provide a variety of well-developed curricula or teaching models. Teachers know their students and their contexts better than policy makers, so providing them with alternative models that share common guidelines gives them the opportunity to become more involved through making informed and thoughtful choices that are more suitable for their contexts and their students.

- Enhance school capacity through different dimensions. Ideas need to be clarified and shared through communication among administrators, teachers, parents, and students. Moreover, people who are involved in the school need to develop and to share in all aspects of school organization and school improvement.
- Provide necessary resources and support for staff development. Resources could be in the form of presentation of theory and demonstration of practice, while support could be in the form of collaboration and peer coaching. This is necessary even if it entails drastic alterations in the way schools are organized.
- Support research, both in the school and outside the school that increases evidence about effective practice and ensure the dissemination of evidence to schools and teachers.

Following these guidelines could facilitate a process of “in-school learning” which not only aims at changing teaching practices, but also at changing the school culture (Lieberman, 1995). However, although researchers have been explicit about the way policy can help improve teaching, we find that educators still feel that policy is playing a role that undermines teaching quality rather than improve it (Cochran-Smith, 2002; Darling-Hammond & Youngs, 2002), and that policy makers do not take into consideration what research says about effective teaching and learning (Allington, 2005). The reasons for this would need to be further investigated, but Darling-Hammond and McLaughlin (1995) suggests that “... the top-down approach is comforting to policy makers because it preserves the illusion of control” (p. 160).

3.8 Conclusion

Literature on teacher development and on issues related to teacher development reflects the paradigm shift in the contemporary theories of learning. Just as ‘modern’ theories of learning emphasize the importance of providing students with opportunities to construct knowledge and understanding, developing students’ critical thinking and problem solving skills, and engaging students in cooperative learning, so do the ‘modern’ approaches to teacher development. Critical thinking, problem solving and inquiry based learning underpin the

theories of conceptual change discussed in this chapter. Moreover, the principles of cooperative learning seem to be at the heart of the professional communities that are regarded by researchers as pivotal in the process of professional development. Just as teachers need to go through a process of conceptual change before they can implement new teaching practices in their classrooms, policy makers also need to go through a process of cognitive restructuring that will help them to see the reality of educational reform and to adopt policy that would lead to real changes in education.

Moreover, the literature on teacher development that has been presented in this chapter attempts to understand and explain conceptual change and demonstrates that there is a common ingredient in the different approaches to professional development. This common ingredient is the process of engaging teachers in examining their initial concepts about the learning process, and in analyzing and understanding new concepts being introduced, the result is preparing teachers to make informed decisions about where and when they need to introduce change. This is referred to by Argyris and Schon (1974) as 'testing one's theories-in-use', by Posner et al. (1982) as 'restructuring the conceptual ecology' of the learner, and by Gregoire (2003) as 'systematically processing' the reform message. At the heart of the examining, analyzing and understanding is an aggregate of thinking processes that have been labeled as "reflection", and reflection has been defined by researchers such as Shulman (1986) and Schon (1987) through diverse thinking processes such as reviewing, reconstructing, re-enacting, considering, speculating, contemplating, introspecting, critically analyzing, and evaluating. This poses another series of questions that have also been the target of a diverse body of research, such as, what kinds of thinking can be considered as reflection? What does reflection incorporate? What should teachers reflect about? What kinds or stages of reflection are there? What factors enhance reflection? What factors impede reflection? And may be most importantly, what makes reflection a driving force to change practice when this change is needed? The next chapter discusses the literature that has addressed these questions

CHAPTER 4

TEACHER REFLECTION

4.1 Introduction

As discussed in the previous chapter, for teachers to introduce real change in their classroom practices, there is a need to go through a process of conceptual change; i.e. a process of identifying their beliefs about learning and teaching and comparing them with their practices, in order to develop these practices in ways that would enhance student learning. Teacher educators who adopt this approach to teacher development regard reflection as the tool for conceptual change and consider reflection to be central to learning processes and key to the continuing professional development of teachers (Korthagen & Lagerwerf, 1996; McAlpine & Weston, 2000; Tillema, 1994, Tillema, 2000, Wood & Bennett, 2000).

Accordingly, the literature on teacher professional development is rich with definitions of, and research on, reflection. This richness, however, provides diverse views on the different aspects of reflection, such as its definition, identification and enhancement among professionals. This chapter presents the different explanations that researchers provide in relation to reflection through answering questions such as: what is reflection and how does its development affect teachers' beliefs and conceptions about learning? How can teacher educators enhance reflection among teachers and what are the factors that impede reflection? And what is role of reflection in teacher development and, more specifically, in action research?

4.2 A Comprehensive Definition of Reflection

One of the first definitions of reflection was by John Dewey (1910/1933) who explained that reflection begins when an individual is perplexed or uncertain about an idea or a situation and strives to arrive at an appropriate solution. Dewey distinguishes between 'impulsive action' which is based on trial and error, 'routine action' which is mainly based on authority and tradition, and 'reflective action' which is based on "active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it" (Dewey, 1933, p.9); Dewey also argued that teachers need to observe, and reason in order to reflect effectively.

Based on Dewey's definition of reflection, Schon (1987) elaborated that when "A familiar routine produces an unexpected result" and the experience "contains an element of surprise", we may either brush it aside or reflect on it. If we respond by reflecting on the "surprise" we may either reflect-on-action, i.e. thinking back on what we have experienced "in tranquillity" and with "no connection to present action", or we may reflect-in-action, i.e. reflect "in the midst of action without interrupting it", this kind of reflection leads to "reshap(ing) what we are doing while we are doing it." (p. 26). Schon distinguishes between "trial and error" and reflection-on-action; while in the former the actions are "randomly related to one another", in the latter the chain of actions undertaken are a result of reflection on each action and "its results set the stage for the next trial (or action)". A distinction that is similar to Dewey's distinction between 'impulsive action' and 'reflective action'.

Accordingly, reflection could be understood to be a "dialectical process that looks inward at our thoughts and outward at the situation in which we find ourselves.... it is thus meta-thinking (thinking about thinking) in which we consider the relationship between our thoughts and our actions in a particular context." (Shkedi, 2000).

Shulman (1987) defined reflection as a set of thinking processes in his Model of Pedagogical Reasoning and Action. According to this scholar, reflection is "reviewing, reconstructing, re-enacting and critically analysing one's own and the class's performance and grounding explanations in evidence" (p. 31), and Valverde (1982), stated that reflection answers the question "What am I doing and why?". The self-evaluation that follows from this question would be an examination of one's situation, behaviour, practices, effectiveness and accomplishments, through a process of persistent and careful consideration, speculation and contemplation of one's beliefs and knowledge; accordingly, this will lead to professional development and a greater understanding of self and the profession. Moreover, Kottkamp (1990) defined reflection as "A cycle of paying deliberate attention to one's own actions in relation to intentions... for the purpose of expanding one's opinions and making decisions about ways of acting in the future, or in the midst of the action itself" (p. 182).

In general, the literature reflects an overlap of ideas in the definitions of reflection; for example Shulman's definition of reflection encompasses Stone's (1994) definition of Pedagogical Analysis which is "analytical examination in vivo of the constructs that seem to offer useful insights into practical teaching" (p. 313), and Kottkamp's definition seems to acknowledge Schon's concepts of reflection-on-action and reflection-in-action.

Although reflection has been defined through diverse thinking processes such as reviewing, reconstructing, re-enacting, considering, speculating, contemplating, introspecting, critically analysing, and evaluating, very few researchers explain how to measure reflection in observable terms, and this might have been one of the main reasons why educators claim that the term reflection is used "rather loosely" leading to no final agreement on the definition for reflection (Griffiths, 2000, McAlpine & Weston, 2000).

In their attempt to try to solve this problem, Sparks-Langer, Simmons, Pasch, Colton and Starko (1990) tried to operationalize the term reflection. In their research, they tried to find answers to the following questions "What are the characteristics of reflective pedagogical thinking? How can we know if it is present? And, how can we develop it in teacher education programs?" (p. 23). The research resulted in the Framework for Reflective Pedagogical Thinking which distinguishes among seven types of language and thinking where level 1 is the lowest with no description provided and level 7 is reflection that includes explanations with moral, ethical or political issues. Table 4.1 presents the seven levels of reflection.

The Framework was based on, among other researchers' work, Van Manen's (1977) discussion on the levels or types of reflection. Van Manen categorizes reflection into 3 levels. The first is *technical reflection* where the teacher focuses on the technical application of educational knowledge to reach an unexamined goal. Reflection here concentrates on "the means rather than the ends" (p. 226). The teacher is more concerned with 'how to apply a teaching technique' rather than 'how would this technique influence students' learning'. The next level is *practical reflection*; here the teacher examines both the means and the goals with

their underlying assumptions. The focus of reflection at this level is on “interpretive understanding”, what is being learnt and how well is it being learnt. The third level is *critical reflection*; here the teacher engages in reflection on the value of the educational experience and starts to consider the political and ethical aspects of this experience, along with issues of justice, equality and freedom. Research shows that teachers’ reflection is mostly at Van Manen’s first level, less at the second level and rare at the third level (Shkedi, 2000; Sparks-Langer & Colton, 1991).

Level	Description
1	No descriptive language
2	Simple, layperson description
3	Events labelled with appropriate terms
4	Explanation with tradition or personal preference given as the rationale
5	Explanation with principle or theory given as the rationale
6	Explanation with principle/theory and consideration of context factors
7	Explanation with consideration of ethical, moral, political issues

Table 4.1: Framework for Reflective Pedagogical Thinking (Sparks-Langer et al. 1990).

Another discussion of the levels of reflection was presented by Zeichner and Liston (1987); these researchers also outline three levels of reflection but define the levels from a different perspective. The first level is *routine reflection*; reflection at this level is characterised by being “guided by outside authority” rather than the teacher’s theories and beliefs about learning and teaching. Here the practitioner uses “very definitive statements” which lack curiosity and attention to complexity. Moreover, reflection of this kind does not focus on problems and incidents of failure or ineffectiveness are usually blamed on others. The second level of reflection in this hierarchy is also called *technical reflection* but is defined as being “instrumental”; hence the teacher uses reflection as a means to solve a specific problem rather than a process that interrogates the nature of the problem. The third level is *dialogue reflection*; through interacting

with other people, other theories or other ideas reflection becomes a process of learning where the teacher engages in considering the views of others; here the teacher becomes more curious, asks new questions and tries new approaches.

As for kinds of reflection, Gore and Zeichner (1991) distinguish four varieties of reflective teaching; an academic version, a social efficiency version, a developmentalist version, and a social constructionist version. Each of these versions stresses some aspects of teacher reflection over the others. For example, the academic version stresses the presentation of subject matter to the students while the social efficiency version stresses the application of recommended teaching strategies, and the developmentalist version focuses on the needs of the students and the social constructionist stresses reflection on the social and political context of the educational process. While all of these kinds of reflection are important, neither is sufficient by itself and effective teacher reflection encompasses all of these areas.

From a different perspective, McAlpine and Weston (2000) explain that reflection can take place in different “spheres”, which is the term used to designate different arenas for reflection without suggesting levels that transcend in a particular order. According to these researchers, teachers engage in *practical reflection* which focuses on “improving actions in a particular class”, *strategic reflection* which focuses on “generalized knowledge and approaches to teaching that are applicable across contexts”, and *epistemic reflection* which “represents a cognitive awareness of one’s reflective processes, as well as how they may impede reflection and enactment of plans”(p. 364).

These researchers also provide a model of the metacognitive processes of reflection; accordingly they define reflection as:

“... anchored in experience, in teaching *action*. Teaching actions are *monitored* in terms of external cues in order to track the achievement of *goals*, prior to, concurrent with and retrospective to instruction. Monitoring may lead to *decision-making*, decisions to modify teaching actions, dependent on where cues fall in relationship to the *corridor of tolerance*, a mechanism for explaining why only some cues lead to decisions to change. Ongoing use of the processes of monitoring and

decisions making are essential for building *knowledge*.” (McAlpine & Weston, 2000, p.366)

Therefore, according to McAlpine and Weston (2000), in the centre of the metacognitive model there are a set of goals that direct and constrain its other features. Reflection starts from experience or action, and during teaching the teacher monitors cues in the environment to collect information about the teaching-learning process. This collected information is compared with the teacher's intended plans for the lesson. These plans are selected from the options or alternative strategies that the teacher knows about and are formulated by cognitive structures accumulated in the teacher's knowledge base through a combination of training and experience. If there is a need to alter these actions to better fit the intended plans then the teacher needs to make decisions to make changes in the action; otherwise, the action will be maintained. These researchers explain that the teacher might not make changes in the classroom practices when the discrepancy between the information collected through monitoring and the intended plans is not large enough and falls within what the teacher believes to be acceptable bounds, in the researcher's words: “falls within the corridor of tolerance”.

From the above discussion on reflection: what it is, what it encompasses, and how it takes place, it becomes clear that reflection is a process of thinking that encompasses several stages and even though researchers define reflection from diverse perspectives, they seem to converge on the point of view that teachers need to be encouraged to reflect because reflection is a necessity for professional and personal development.

4.3 The Interpersonal Aspect of Reflection

So far reflection has been described in terms of the intrapersonal, i.e. the cognitive and meta-cognitive processes that the teacher engages in while reflecting. All approaches, perspectives and activities used by researchers to describe and encourage reflection seem to have a common un-stated assumption, that “The practitioner is in total control of deciding whether to reflect, and as a result, whether and how to change his or her practice” (Kottkamp, 1990, p.199)

and that reflection is typically an intrapersonal activity and its locus of control is within the practitioner her/himself. However, the interpersonal aspect of reflection is just as important in effecting change in behaviour and one can be encouraged by others to think. This is the role of the colleague, the collaborator, the critical friend, or the supervisor (coach), in the process of reflection and this aspect could involve two kinds of interactions: the collegial interaction and the interaction with the “coach” (Schon, 1987).

Through collegial interaction, teachers become involved in discussion “...their exposure to multiple theories of action often makes them aware of the extent to which their own practice is theory-laden; it suggests the surprising possibilities of theories of action alternative to their own and it creates interest in the problem of testing, synthesising or choosing among equally plausible theoretical options” (Schon, 1987, p. 324). Brookfield (1995) recommends participating in critical conversations with peers. This will lead to better understanding of what teachers experience in their classrooms because the discussions will highlight other perspectives to these experiences and help the teachers to reframe and at times reconstruct their theories in practice. However, for these discussions or conversations to be effective they need to take place in “authentic communities” (Halliday, 1998). These communities are characterized by being directed by concerns for good practice and what works for the learner, rather than being directed by authority and traditions. Such authentic communities are not only the responsibility of teachers or teacher trainers, but also the responsibility of administration and educational authorities.

As for the interaction with the coach, Schon (1987) explains that this interaction needs to be in the form of a dialogue. To start with, the dialogue is to take place in a context where the learner attempts to learn and both coach and learner make use of action and words and engage in reciprocal reflection-on-action. Through this dialogue the coach tries to understand what the learner knows and what he/she still needs to learn; accordingly, the coach demonstrates or models the action that needs to be learnt and accompanies the demonstration with overt reflection-in-action. The learner also reflects-in-action while applying the knowledge that he/she has constructed from the demonstration. Ultimately, both

coach and learner move toward a “convergence of meaning” where communication becomes more effective and learning more efficient.

Moreover, for reflection to be a driving force for change, it needs to reveal incongruencies between what the practitioner intends to do and what he/she actually does. Although at times these incongruencies can be arrived at individually, in most cases there is a need for an “outsider’s” perspective, and this is usually in the form of feedback.

Feedback that is non-judgemental and non-critical has proven to help teachers to change their attitudes, beliefs, and behaviours (Berkey, Curtis, Minnick, Zietlow, Campbell & Kirschner, 1990). Feedback is most effective when it excludes all forms of advice, judgement, and even praise, because these impede reflection and convey the message that someone else other than the teachers is evaluating their practices and thus releases the teacher from responsibility (Kottkamp, 1990).

Kottkamp (1990) distinguishes between two types of feedback: the descriptive and the prescriptive. Descriptive feedback is usually a communication of what took place during the session or the lesson. Although no description can be fully objective, supervisors could present what they experienced in a way that is less influenced by their subjective views. Of course this is not easy, especially if the person giving the feedback has always practiced giving prescriptive feedback. Just as teachers are expected to go through a process of conceptual change, so do supervisors; they need to investigate their beliefs about their role and the teacher’s role in the supervisor-teacher relationship, since these beliefs could affect the quality of feedback and consequently impact the teacher’s ability to reflect.

Prescriptive feedback is usually in the form of evaluation. When the supervisor engages in telling the teacher what she did right or wrong and in giving prescriptions for future lessons, then the egalitarian relationship is lost since the supervisor is “taking a superior stance” (Kottkamp, 1990, p. 200). This kind of feedback could result in teachers defending their practices rather than engaging in self-evaluation, and the result is impeding to reflection.

Therefore, engaging in discussions with others is crucial for the development of reflection, but the relationship with others needs to be one of trust and respect before it could lead to success in this area.

4.4 Theories of Learning and Reflection

With the paradigm shift in educational research from a scientific-empirical approach to a constructionist approach, there has been a shift in the way educators see teacher development and what they think works and what does not work. The traditional model of teacher training, which was named by Tigchelaar and Korthagen (2004) as the “technical rationality approach” emphasised the use of teaching strategies, educational procedures, exercises and tasks, and a number of studies show its failure in influencing teaching practices (Tigchelaar & Korthagen, 2004). This model is being replaced by a teacher development model which is influenced by the constructivist approach to learning and which emphasises the role of reflection in learning. Therefore, there is a shift from asking questions such as what to train teachers in, and what are the best strategies to train teachers, to asking questions such as how do teachers think, what do they think about, how can we encourage teachers to think about the diverse issues that confront them in a classroom, and how can teacher reflection effect change in classroom practices.

This new perspective on teacher development is also influenced by learning theories that place reflection at the heart of the learning process. Some of these theories are Dewey’s (1933) conception of how a learner thinks, Kolb’s (1984) theory of the experiential learning cycle, and Schon’s (1987) theory of the reflective practitioner.

4.4.1 Dewey’s (1933) conception of how a learner thinks: This conception was articulated in Dewey’s book *How We Think*. Although this scholar identified several modes of thinking such as belief, and imagination, he elaborated most on reflection. His concept of reflection and the purpose it serves were characterized by four criteria by Rogers (2002). The first criterion is that Dewey views reflection as a process of making connections among pieces that together make a

whole, i.e. it is a meaning-making process. Through reflection the learner tries to formulate the relationships among the elements of the experience, between the experience and previous experiences, and between the experience and formerly acquired knowledge. These relationships help the learner to form a theory that would inform practice. However, learning does not stop here because by encountering a new experience the theory is tested and either modified or elaborated.

The second criterion is that reflection is a rigorous way of thinking. Dewey contrasts between the stream of consciousness, invention, believing and reflection. The stream of consciousness is just the involuntary stream of thought that we all engage in, as for invention, it is a kind of imagination which could be a subset of reflection but not equal to it, and believing is based on prejudgement without deliberate mental activity such as observing, collecting and examining evidence. As opposed to these kinds of thinking, reflection according to Dewey is “(a)ctive, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends”(italics in original, p.9 as cited by Rogers, 2002). Therefore, reflection is a deliberate act; it is a thought process that tries to understand existing knowledge that comes in the form of beliefs, theories, and ideas, and to verify the basis on which this knowledge was formed and to see its effects on the world of experience.

The third criterion for Dewey’s theory of reflection is the importance of expressing or communicating to others the deliberate thought process and its conclusions. This is necessary because while communicating the thinking process the learner explores it further, gains from feedback on its strengths and weaknesses, and opens up to new perspectives or new avenues of thought.

Effective communication of one’s thoughts is enhanced by a set of attitudes and these form the fourth criterion. Dewey explains that the attitudes that the learner brings to the process of reflection can either enhance learning or impede it. Although he stresses the legitimacy of all attitudes, he argues that good thinkers are aware of their attitudes and can use them to enrich the thinking process.

Reflection, however, can enhance learning when accompanied by wholeheartedness or genuine enthusiasm, by directness or conscious effort for learning and acquiring knowledge, by open-mindedness or willingness to understand and examine other perspectives, and by responsibility or readiness to take action when needed.

4.4.2 Kolb's (1984) experiential learning cycle: This theory is presented in Kolb's book *Experiential Learning: Experience as the Source of Learning and Development*. Kolb draws on the work of Dewey (1933), Piaget (1977) and Lewin (1948) to try to explain his model of experiential learning. For Kolb "learning is the process where by knowledge is created through the transformation of experience" (p. 38) and his model depicts learning as a process made up of a four phase cycle: concrete experience, reflective observation, abstract conception, and active experimentation. Although learning could commence from any of the phases in the cycle, it is most effective when the learner goes through all the phases.

Kolb explains that in concrete experience the learner's senses and emotions are engaged in some activity. This leads to reflective observation where the learner gets engaged in gathering information about the experience and tries to make sense of the data through discussions and elaborations, and through relating it to previous experiences. Here the learner asks him/herself questions such as what happened, and what did I observe. The third phase is the in-depth thinking phase where the learner tries to relate the picture formed from the experience with theories and concepts, and starts to develop theories by asking questions such as how can I explain what I observed, what does this mean, how is it significant, and what conclusions can I draw. The fourth stage involves action where the learner tries to implement what has been learnt from previous phases; this is the active experimentation phase. According to Kolb learning does not stop at the active experimentation phase, but a new cycle of learning could start, since learning takes place in a spiral manner.

4.4.3 Schon's (1987) theory of the reflective practitioner: Schon explains that problems in a practitioner's real-world do not present themselves in well-formed

structures, but are presented in a “messy, undetermined situations” (p. 4). This calls for the practitioner’s construction of the problem from the data provided by the situation itself. This construction process is not straight forward but is influenced by the practitioner’s background, interests, and perspectives. These factors play a role in the selection of data from the situation and even influence the interpretation process, i.e. the way the practitioner makes sense of the data. Schon terms this process as “factor naming” and “problem-framing”. The next step calls for the practitioner to construct new strategies for action which will need to be tested in a real-life or virtual situation, then evaluated in order to decide whether the course of action chosen has helped in coming closer or in achieving the goals set by the initial step of problem-framing. These thinking skills are especially necessary in a profession where the existing knowledge cannot fit every case and cannot provide ‘a’ right answer to every problem, like in the profession of teaching.

4.5 Approaches to the Development of Reflective Teachers

The literature presents a variety of approaches that are intended to foster reflection. Some of these approaches are supervised experiences (Sparks-Langer & Colton, 1991; Zeichner, 1987), case studies and ethnographic studies (Blanton, 2002; Frank, 1999; Kottkamp, 1990; Valli, 2000), and engaging teachers in action research projects (Carr & Kemmis, 1986; Sparks-Langer & Colton, 1991; Zeichner, 1987). These approaches have a general common aim which is “...the development of teachers who have the skills and dispositions to continually inquire into their own teaching practice and into the contexts in which their teaching is embedded” (Zeichner, 1987, p. 565).

Through *supervised experiences* teachers are helped to develop their reflective skills by taking part in a teaching activity that would be utilised for teacher learning. Teachers have the opportunity to learn from their actual experiences in the classroom and videotapes of lessons are often used to help teachers to review and critique their own teaching.

This approach has also introduced a new kind of supervisor where the emphasis in this role is on developing the reflective capabilities of the teacher, rather than

evaluation and advice giving which are the trademarks of traditional supervisory. Teachers are encouraged to engage in analysing their classroom practices and to be their own evaluators and decision makers, to ask questions and to use information from their own observation (Zeichner, 1987; Hatton & Smith, 1994; Valli, 2000; Kottkamp, 1990); eventually, teachers will develop the needed skills to become reflective.

Case studies and ethnographic studies are also used to help teachers develop reflective skills. While documenting a case, the teacher gets involved in reflective thought that prompts deeper understanding of issues related to student learning and student behaviour; moreover, when choosing a recommended course of action, the teacher will investigate different theoretical perspectives which might be conflicting at times (Kottkamp, 1990; Valli, 2000). This will open up new perspectives for the teacher to investigate and will direct the teacher to “explore how the present situation links to their own prior experiences” (Colton & Sparks-Langer, 1993, p. 47).

Similarly, while conducting ethnographic studies, the school becomes a social laboratory for study where the teacher observes, takes notes, conducts interviews, or even video-tapes events. Teachers could choose to study some aspect of classrooms, curriculum or teacher-student interaction and make common assumptions or beliefs about teaching and learning problematic, and hopefully see alternative ways to deal with the everyday problems (Zeichner & Liston, 1987). In her study, Frank (1999) found that getting teachers involved in ethnographic studies helped them to refrain from making immediate judgement and quick inferences and interpretations and to rely on evidence; she also found out that with time the teachers became more engaged in reflective practice around their teaching.

A very important aspect of ethnographic studies is the writing up stage; teachers are “forced” to make sense of the data collected and this will help in discovering insights and in creating deeper understanding of what goes around them in school

and what is overlooked in the midst of the demanding daily routines (Blanton, 2002).

Action research is a form of inquiry that promotes reflection by encouraging teachers to become "...critical consumers of research, participants in research discussion, and developers of research-based approaches to classroom decision making" (Burbank & Kauchak, 2002, p. 500). Although there are different versions of action research, the most common model is the cyclical action research process which is made up of the reconnaissance stage, the planning stage, the acting stage, and the observing and reflecting stage (Kemmis & McTaggart, 1982). Therefore, the methodology employed in action research encourages teachers to ask questions about theory and practice and fosters reflection through inquiry.

According to Leitch and Day (2000), different orientations to action research lead to different types of reflection. These researchers outline three orientations to action research: the technical, the practical, and the emancipatory. Technical action research fosters reflection that deals with solving immediate and pressing problems at the expense of developing the teacher's capacity for reflection on practice as a whole. This could restrict teachers to a technical-rational approach to teaching rather than developing reflective capabilities that lead to the wider goal of professional development. Practical action research, on the other hand, is concerned more with the process than with the product. In this approach, teachers reflect on both moral and practical issues and relate them to important problems in their contexts. Here the emphasis is on analysis rather than on fact-finding and on introspection and self-evaluation rather than problem solving. Although the practical approach deals with social and moral issues, it does not necessarily lead to the development of the teacher's professional self or to the construction of a full professional identity. This is where emancipatory action research plays a role. This approach encourages teachers to question tradition, habits, and beliefs that reside both within the reflecting person and the social and professional contest as a whole. Reflection here is more concerned with values both personal and social and through this kind of reflection the teacher develops a higher level of awareness of both the self and the society. This enables the teacher to plan for

change not only in the personal field but also in the educational system and the society as whole.

The literature is not conclusive about the effect of action research on the reflective abilities of teachers; Dinkelman (2000) states that using action research methodology in his study, which aimed at developing critical reflection in three secondary pre-service teachers, was able to reveal limited but significant evidence of critical reflection and critically reflective teaching. Kraft (2002) reports on her study that aimed at enhancing critical reflection through a professional development course which involved teachers improving elementary science instruction through an action research process. The researcher concludes that this study "...validate(s) teacher research structured around principles of critical self-reflection as a way to assist teachers in understanding their practice and questioning beliefs, values, and assumptions underlying their practice" (p. 188).

Another perspective on developing reflection is presented by Shulman (1986) who explains that teachers need to be armed with an array of knowledge before they can engage in meaningful reflection that is necessary for teachers to deal with "the indeterminacy of rules when applied to particular cases" (p.11). In his article Shulman outlines different kinds of knowledge that teachers need to be equipped with. These are: subject matter content knowledge, pedagogical content knowledge and curricular knowledge. Content knowledge refers to the facts and concepts of a domain and to the understanding of the structures of these and their relationships to each other. Pedagogical content knowledge is the knowledge related to teaching a certain subject, and curricula knowledge refers to understanding the curricular alternatives available to teaching a certain subject and to relating the content of a subject to other lessons in other subjects. This knowledge base could be organised in three different forms of knowledge: propositional knowledge, case knowledge and strategic knowledge. Research on teaching and learning provides teachers with propositions rather than principles and teachers need to apply these propositions in the light of the circumstances of a situation. Case knowledge is knowledge presented to teachers in the form of specific and rich descriptions of events that could be examples of the more

abstract form of propositions. However, it is strategic knowledge that is most challenging for teachers since it is the knowledge teachers use when they are confronted with a certain problem or situation that has no clear cut explanation from the propositional and case knowledge. This is where reflection is at its highest levels since the teacher cannot readily apply what she/he knows without careful consideration of the different types of input provided by the situation itself. Shulman's discussion of categories and forms of knowledge could be regarded as the cognitive structure that needs to be developed among teachers and the metacognitive processes that teachers need to master before valuable reflection takes place.

These are some of the approaches used by teacher educators to develop teachers' reflective abilities and reflective practice, but due to the difficulty of defining reflection and identifying it, researchers in this field still highlight the need for more research on reflection and ways to develop it; they, however, agree that fostering reflection will lead to professional development.

4.6 Methods and Techniques to Enhance Reflection

To encourage and develop this kind of thinking among teachers, again researchers suggest diverse methods and techniques based on the researcher's orientation and perspective on reflection.

Researchers with an academic orientation tend to emphasise the need for a theoretical background on which reflection is based, for example, Stone (1994) states that there is a need to teach and demonstrate to teachers "... how theoretical input from the fields of study can help their work in classrooms." (p. 311). Similarly, Sparks- Langer et al. (1990) explain that in order to enrich a teacher's schemata about learning and teaching, it is necessary to first learn about the concept then observe examples of it, and then experiment with it in a classroom; only then will the teacher be able to reflect on the concept in a more meaningful way.

Other researchers with a developmental orientation tend to focus on understanding students' thinking and students' needs. These researchers consider

that in the first stages of professional development teachers will reflect on issues of classroom control and ways to establish their authority in their classrooms; however, when the teacher becomes more confident and competent, the content of her reflection will start to deal with students' learning and progress and this will lead to developing a deeper understanding of learning and teaching (Fuller, 1969; Griffiths 2000).

Researchers with a social change orientation tend to emphasise the use of strategies that foster social interaction among teachers and colleagues, or teacher and mentor (or coach). These researchers also believe that developing teacher reflective skills will lead to higher levels of self-awareness that result in higher levels of empowerment and emancipation (Brookfield, 1995; Halliday, 1998; Schon, 1987). According to Schon (1987) a student learns by joining with a coach "... in a particular communicative enterprise, a dialogue of words and actions." (p. 163). This dialogue takes the form of reciprocal reflection-in-action where the coach demonstrates and describes his actions in a way that is suited to the student's needs (difficulties and confusions) at the time of demonstration.

Brookfield (1995) recommends building trustful relationships with students and colleagues who will provide valuable feedback on teaching practices; this feedback is highly valuable to teachers who want to become critically reflective because it helps them to see the discrepancy between "What is and What should be" (p. 29). By collecting student comments on the teacher's actions and discussing them publicly in a safe atmosphere that reflects the teacher's belief in the value of critical reflection, the teacher might succeed in "getting inside the students' heads and see classrooms and learning from their point of view" (p. 35) which is an excellent source for higher levels of reflection.

Therefore, researchers with different orientations recommend different techniques to encourage teacher reflection in accordance with their perspective on reflection. In an article that catalogues the different means that facilitate reflection, Kottkamp (1990) lists techniques that have been used by researchers, and explains that these techniques could be placed on a number of overlapping dimensions. To start with, reflection could be focused either on past or present

events, and could take place in different media, such as writing, reading, observing, listening, or talking. A professional could reflect individually or in groups and the process of reflection could be self-initiated or could be instigated and facilitated by others. Kottkamp (1990) adds that professionals can either reflect on actual experience or on simulated events. Along these dimensions this researcher catalogues a number of activities that can encourage teachers to reflect, ranging from interviews, to video observations, to journal writing, to group discussions, and recommends to “mix and match” a menu of activities that best suit the teachers and their contexts.

Although the above discusses techniques are all aimed at enhancing teacher reflection-on-action “...the optimal professional performance assumes reflection-in-action” (Kottkamp, 1990, p. 183). Kottkamp (1990) explains that researchers in the field of reflection believe that this is achievable through practice, so teachers could start by engaging in activities for reflection-on-action, but eventually their reflection abilities will become automatic and more readily available; this is where reflection-in-action becomes possible; research still needs to establish this.

4.7 Factors that Impede Reflection

Teachers tend to resist becoming involved in activities that encourage reflection because they do not see it as an immediate need. Teachers are more inclined to invest their time and effort in the tasks that make up their daily routines, such as lesson-planning, correcting students’ work or even dealing with students’ social and behavioural problems. Among these pressing tasks, a teacher might find it unimportant to engage in journal writing or group discussions. This is quite understandable because reflection affects change in the long run while teachers are usually busy finding solutions for immediate problems. Accordingly, it is imperative for schools which aim at encouraging their teachers to reflect to make organizational changes that “institutionalize time for reflection” (Berkey et al., 1990, p. 230).

Another reason for teachers to resist engaging in reflection is the feeling of vulnerability which is usually associated with this kind of thinking (Day, 1998;

Hatton & Smith, 1994). Whether technical, practical or critical, reflection demands exposing of one's beliefs and perceptions, and if the teacher feels unsafe in an environment or feels less qualified than her colleagues she is unlikely to discuss openly her thoughts and feelings; accordingly, Colton and Sparks-Langer (1993) state that there is a need for a collegial environment where teachers feel safe and where thoughtful practice is nurtured. Moreover, the environment needs to be perceived by the teacher as supportive to risk taking; reflection involves taking risks in one's practice and doing things differently and an unsupportive environment could act as an impediment to change.

Teachers might also lack basic knowledge and skills that aid reflection. Metacognitive skills are at the basis of reflection and if teachers have been long detached from reading articles related to their profession, and from analyzing systematically incidents and cases related to student learning and student problems then this will prove difficult for them to engage in reflection that incorporates (as mentioned earlier) a wide range of thinking processes. This is referred to by educators who adopt an academic orientation to reflection, such as Shulman (1987) who states that teachers need to be well informed about their subject matter and the pedagogy related to the subject matter to be able to facilitate the process of learning for their students.

4.8 Motivating Teachers to Reflect

The above discussion on reflection, what it entails and how it is developed establishes that reflection is hard work, and that teachers need to invest both time and effort in reflection if they intend to pursue professional growth. However, as mentioned earlier, teachers are usually pressed for time and have tight schedules with little space for reflection. This raises the issue of how to encourage teachers to persist in engaging in reflection in the midst of their demanding daily routines.

In relation to this, Colton and Sparks-Langer (1993) state that "...reflective teachers are motivated to grow" and that "...a key piece to this motivation is a sense of self-efficacy" (p. 46). These statements are based on Ashton and Webb's (1986) study that proposed that self-efficacy influences teachers' behaviour, efforts and persistence. Teachers with high self-efficacy tend to persevere with

students who have difficulties learning. Ashton and Webb's (1986) study was influenced by Bandura's (1977) work on self-efficacy and motivation.

Bandura (1977) explains that behaviour is determined by three factors: knowledge and skills, outcome expectations, i.e. the likely consequence of the behaviour, and self-efficacy. Accordingly, if teachers are to be committed to reflection, they need to have the related knowledge and skills and to believe that engaging in reflection will lead to the improvement of their practice or to solving a problem that they are facing.

Similarly, Feather (1969) states that the degree to which a learner will expend effort on a task is influenced by two factors: the degree to which he/she expects the effort will lead to success in completing the task and the value of the expected reward after the completion of the task. Therefore, for teachers to invest time and effort in reflection they need to believe that they can engage in valuable reflection and that reflecting on their practices will help them in a way that is valuable for them. Accordingly, teachers need to be provided with the opportunity to acquire a suitable knowledge base that would help them to understand the concept of reflection and to apply reflection and test its value on their own teaching (Hatton & Smith, 1994).

The relationship between self-efficacy and reflection was presented by Scott (2003) whose study concluded that the teachers who were successful in learning and utilising new and complex teaching strategies exhibited high levels of self-efficacy and sound self-reflection techniques. These teachers also demonstrated analytical thinking skills and meta-cognitive skills in relation to their teaching practices and to their students' learning and behaviour.

Moreover, self-efficacy is dynamic and changes as learning occurs (Schunk, 1996), when a person perceives progress motivation is sustained and the outcome is continued learning. Success in learning will result in increased self-efficacy, and this will provide further motivation to attempt more difficult tasks (Woolfolk, 1993); self-efficacy helps in generating a "learning to learn" effect where the teacher establishes a positive cycle of innovative teaching practices

and on going professional development (Joyce & Weil, 1986). Therefore, teachers need to believe that engaging in reflection will aid them in professional growth and they need to experience the positive effect of reflection on their teaching practices to persist on reflecting and making sense of what they encounter in their contexts.

4.9 The Effect of Reflection on Teachers' Beliefs and Conceptions

Techniques or means that facilitate reflection help teachers become more aware of their personal and professional "selves" who are highly interrelated (Day, 1998; Day & Leitch, 2001). The profiles of these "selves" are a direct result of the teachers' belief systems and perpetual frameworks "...that are usually removed from (their) awareness" (Clark & Peterson, 1986). This point is also referred to by Schon (1987) as the knowing-in-action; it is the "know-how implicit in (practitioners') actions" and it is "incongruent with their descriptions of it" (p.25). However, what if this "know-how" is not yielding the desired results for the action and what if the teacher is engrossed in her/his teaching to the point that student learning is not being taken into consideration; this is why it is important to make what is normally tacit knowledge more explicit, and this could be done through a process of reflection (Hewson, Hewson, & Jensen, 1989). Schon's (1987) perspective on tacit knowledge is different from Hewson et al.'s (1989), while the former sees the process of making the implicit explicit as a way to help new practitioners learn from the masters of the trade, the later sees it as a necessity for conceptual change.

Korthagen (1993) explains that teachers' actions are directed by their knowledge structures, or "cognitive schema". This schema contains knowledge that is related to the content of the subject that the teacher deals with, to the students with their needs and backgrounds, to pedagogy, and to the context in which the teacher is teaching. When the teacher is faced with the need to adopt new educational theories, he/she needs to resort to "reflection" since it is a set of thinking processes that help the teacher to see things from new perspectives. According to Korthagen (1993) reflection is basically a process of analysing and understanding both the existing cognitive schema and the newly introduced educational theories, then followed by a process of assimilation that restructures

the existing schema in a way that integrates the new theories. Other theories that highlight the role of reflection in the process of conceptual change have been discussed extensively in the previous chapter.

4.10 Conclusion

Both the promised effectiveness and the complexity of reflection, with its multidimensional aspects -the cognitive, the social and the psychological- have made it a popular area for contemporary teacher educators and professional development researchers. Reflection has been researched extensively, but many issues related to it still need to be further investigated.

Teacher educators today seem to believe in the importance of reflection, but they still have much to find out especially in relation to what makes teachers reflect and how can reflection influence teaching practices. Many attempts have been made to find evidence of reflection, but the personal characteristics and social contexts of these attempts make the findings of research bound to specific areas.

Researchers in principle agree that reflection helps teachers to develop professionally and to increase the possibility of conceptual change which is a prerequisite for introducing change in teaching practices. Moreover, action research is documented to encourage teachers to reflect in a way that would improve their teaching; accordingly, this study tried to investigate teachers' engagement in reflection in the framework of an action research. The next chapter reports on methods used to encourage teachers in primary schools in Lebanon to reflect in the context of implementing the new curriculum in their schools.

CHAPTER 5

METHODOLOGY

5.1 Introduction

Assumptions regarding ontology and human nature are directly related to epistemological beliefs; in addition, the way the researcher regards reality and human nature affects the way he/she perceives knowledge and the ways to acquire it, and it is these epistemological beliefs that dictate different modes of research as a way to arrive at knowledge (Burrell & Morgan, 1979). It is, therefore, important to identify the ontology and the epistemological stance that underpinned the methodology of action research employed in this study.

Accordingly, the chapter starts with a brief explanation of the relationship between ontology and epistemology on the one hand and methodology and methods of research on the other. Then this is related to personal reflections of ontology and epistemology that helped me to understand why action research was the most attractive methodology for me as a researcher in this study. This quest for self-awareness is followed by exploring action research, its origins, its definitions, and how it started and how it is diversely implemented by researchers.

Against this backdrop, the setting and the participants of the research are described, the research design, along with the difficulties that were faced, is presented and the changes that the design went through during the implementation of research are explained through my position on the first and second order action research. The chapter ends with a presentation of the data analysis process and with a discussion of issues related to trustworthiness and the researcher's ethical stance.

5.2 Ontology, Epistemology and Methodology

According to Burrell and Morgan (1985), it is the researcher's implicit and explicit assumptions about the social world and the ways to investigate it that lead to the choice of research methodology. Similarly, Crotty (1998) explains

that our choice of methods and methodology is directly informed by the assumptions that we hold concerning reality and how we can learn about it. Morgan and Smircich (1980) add that any research method can not be presented in abstract, but the researcher's underlying assumptions regarding the nature of knowledge and the nature of the phenomena being studied need to be explored to justify the choice of research method.

The assumptions that a researcher holds are embedded in a three dimensional set of beliefs where each dimension is reflected in the other and is affected by the other. Morgan and Smircich (1980) delineate these dimensions as: assumptions regarding ontology, assumptions regarding human nature and assumptions regarding epistemology.

Ontology is defined as a particular view of reality held about the situation in question, as the study of being (Crotty, 1998) and as the way we view ourselves; a theory of being (McNiff, 2002). Morgan and Smircich (1980) present a continuum of basic assumptions regarding ontology which are held by researchers in the field of social science. At one end of the continuum reality is regarded as "projection of human imagination"; here reality is viewed as completely subjective where the subject creates reality uninfluenced by the object being studied. On the other end of the continuum, reality is assumed to be "a concrete structure"; here reality is viewed as completely objective and the researcher is expected to map the object being studied with no contribution from his/her subjectivity.

Along the continuum are less extreme views of reality and their corresponding sets of assumptions are explicitly influenced by one of the extreme poles, yet at the same time implicitly incorporates assumptions from the other end. To demonstrate, Morgan and Smircich (1980) place in the middle of the continuum two views of reality: "Regarding reality as symbolic discourse" and "Regarding reality as a contextual field of information" (pp. 494-495). According to these authors, social "scientists" who hold the former view see the social world as "a pattern of symbolic relationships and meanings sustained through a process of human action and interaction" (p.494). Hence, individuals act and interact

through a set of symbols to form reality; as such, reality is not completely subjective or completely shaped from the inside of the individual, but is also influenced by other actors. The later ontological position is placed on the continuum in a position that is closer to the objectivists' approaches; here the world is regarded as a "process of information", and "the social world is a field of ever changing form and activity based on the transmission of knowledge" (p.495). Hence, individuals act and interact with their contexts through the exchange of information, and reality is shaped through this exchange. Therefore, reality is not a fixed entity and the individual is a changing element in the changing whole.

A social scientist's ontological stance, i.e. his/her perception of the social world, influences the way he/she learns about it and acquires knowledge. Accordingly, a researcher's assumptions about the world and reality result in adopting a certain ontology that will lead to adopting a compatible epistemology, i.e. theory of knowledge. The social scientist who believes that reality is a realm of "symbolic discourse" will employ an epistemology that seeks to understand the nature and patterns of the symbols that individuals use to negotiate their social reality. This epistemological stance is reflected in Glaser and Strauss's grounded theory approach (1976). According to these researchers, "...grounded theory is inductively derived from the study of the phenomenon it represents" (Backman & Kyngas, 1999). The findings of such an epistemological approach does not regard the findings as universally generalizable, but addresses social processes in order to clarify them and make them public" (Morgan & Smircich, 1980).

However, a social scientist who believes that reality is a "contextual field of information" will seek to map the contexts and to understand how the exchange of information between individuals and their contexts effects changes in these contexts and how individuals adjust to these changes. Here the social scientist is concerned with "... the mapping of contexts ... and facilitating understanding of the patterns of systemic relationships inherent in the ecological nature of those contexts" (Morgan & Smircich, 1980). One of the first proponents of this approach is Gregory Bateson who developed the cybernetic epistemology in 1972. His work has influenced the therapeutic practices that have dominated the field

of family therapy for many years (Bertrando, 2000), where the family is regarded as a system that is not passively influenced by external causes, but actively transforms these external inputs to evolve into a transformed system (Hoffman, 1992).

Therefore, each set of assumptions on the ontology continuum is also reflected on the epistemology continuum. A highly objectivist view of reality will dictate a positivist epistemology that regards the social world as a concrete structure that needs to be studied through empirical analysis, while a subjectivist view of reality will tend towards a structuralist epistemology where meaning is imposed on the object by the subject and where “the object makes no contribution to the generation of meaning” (Crotty, 1998, p. 9).

The importance of the epistemological stance of a researcher is that it is one of the determinants of the methodology chosen for a piece of research. The methodology is the way the researcher chooses to find about the reality that is being studied. Although the literature on social research generally shows one link between certain epistemologies and methodologies, these relationships are not mandatory; there are methodologies that can be related to more than one epistemology and the case is the same for methods used within certain methodologies. The researcher has a margin of freedom to create a unique research design that will fit the unique purpose of his/her research; however, what is mandatory is to be able to justify the choice of a certain methodology in relation to the questions that the study needs to answer; only then will the conclusions arrived at be regarded with respect and given credibility (Crotty, 1998).

5.3 Personal Reflections on Ontology and Epistemology

In reference to my background in the field of teaching and school counselling that was discussed in the introduction to the thesis and in relation to what was discussed above on ontology, epistemology and their relationship to research methodology, it seems important to start with finding the relationship between the aim of the research and the methodology chosen for it.

As mentioned before, the main aim of this research was to find ways for the educational system to provide the appropriate opportunities and the support that teachers need to become well equipped to play a more significant role in helping students to overcome the majority of the social and the academic difficulties that students go through. This is to take place in the context of an educational reform that expects teachers to do away with traditional teaching practices that are teacher centred and that emphasize memorisation, and to incorporate in their classrooms practices that are more student centred and that emphasize critical thinking, problem solving and creativity.

My personal experiences have led me to construct my view of the reality of the educational context that I worked in, and this view of reality has led to my adoption of the epistemological belief that people learn and generate knowledge from their experiences in a certain domain. Thus learning or acquiring knowledge or skills is a process of development that is rooted in experience, but the question is how can teachers be motivated to use their experiences as a base for further learning and development?

Based on the belief that each of us constructs his/her own image of reality and that this image is formed and informed by our experiences, there was a need to find a way, a method or a methodology, that will involve teachers in a process that will provide for them the opportunity to understand their educational context in order to identify it, evaluate it, and then propose ways to introduce changes in it.

Literature on educational research is rich with examples that could cater for the above mentioned need, and all of these examples fall under the title of action research.

5.4 Why Action Research?

According to McNiff (2002), researchers who employ action research are divided on the purpose of this approach; while one group regards its aim to observe and understand how individuals act, the other group defines the purpose of action research as a tool for social change that is understood and planned for by the

participants themselves. The former group would regard action research as a methodology which focuses on observing behaviour and offering descriptions of these individuals' behaviours, and the later group regards action research as a methodology that is initiated and interpreted by the participants themselves, to try to find solutions to problems faced or to find ways to overcome difficulties in their professional, social or personal lives.

Action research from the interpretivist approach seeks "... merely to understand...to read the situation in terms of interaction and community... to accept the status quo", and this was not the aim; what was needed here is research "...that challenges...that reads (the situation) in terms of conflict and oppression... that seeks to bring about change" i.e. research from the critical inquiry approach (Crotty, 1998, p. 113).

For me it was the second perspective on action research that seemed to offer a methodology that helped to formulate the main aim of this study: change and/or improvement that needs to start from emancipation.

The emancipation referred to here is not necessarily the liberation of oneself from a defined oppressor, as in Paulo Freire's *Pedagogy of the Oppressed* (1972). Instead, it is liberation from a set of beliefs and conceptions about teaching and learning that have been handed down vertically from generation to generation and horizontally from administrator to supervisor and from teacher to teacher. I saw action research as a process that would start from Elliot's (1991) "reconnaissance", again not exactly the same as Elliot's understanding of one's context and all the factors that interplay in it, but more of understanding one's present role in this context and the factors that define this role, thus leading to realising the *potential* that this role has and the factors that are impeding or obstructing the development of this role to its real potential. When teachers realise that they have the potential to play a more effective role with their students then they might start to plan for changes in themselves, in their practices and in their contexts.

This idea is referred to by McNiff who states that one of the roles of action research and other more modern movements in social research is to challenge traditional views, and that these movements are built on the premise that “We have the potential to recreate ourselves... (and) that people are able to realise their own capacity of self-recreation, and to remove obstacles which might obstruct this self-development” (McNiff, 2002, p.56).

Therefore, the main aim of the research was to aid teachers, through a process of reflection and action, to realise the theories that they were adopting in their everyday practice, and then to try to identify the theories that they were blindly incorporating in this practice without any real investigation. This would be the first step in helping them to differentiate between the theories that are compatible with their own beliefs and values about their role, and the theories that are created externally and that are incompatible or that contrast to how they see themselves in this role i.e. the *oppressing* theories.

According to McNiff, Naomi Chomsky laid the foundation for the notion of *external* and *internal* theories when he presented the idea of external language, E-Language, and the internal language, I-Language, in his book *Knowledge of Language* (1986). Then in 2000, Chomsky further developed this idea into the concept of I-conceptual systems and I-belief systems “...a concept that revolves around the internalising nature of beliefs and ideas” (McNiff, 2002, p. 21).

Starting from Chomsky’s E-language and I-language, McNiff explains that for her the main purpose of action research is to enable the participants in research to generate I-theories of knowledge. These are “...theories which are already located within the practitioner’s tacit forms of knowing, and which emerge in practice as personal forms of acting and knowing.” (p. 22). Then the next step would be to investigate these theories in order to find out if they are in contradiction, and to what extent they contradict, with what the person believes in. This is an important phase in the process of action research because it allows for deep and meaningful self-study which according to McNiff “...is now widely recognised as a *powerful influence for personal and social renewal*” (p. 23) (emphasis added).

Therefore, if the aim of this study is to help teachers to liberate themselves from theories that are generated externally from them by other creators in their personal and professional contexts and to aid them in a process of generating their own theories, internal theories, which are compatible with their beliefs and their values, then teachers need to be engaged in a process that would allow for knowing themselves more in order to plan for the changes that they need to incorporate in themselves and in their contexts. This is crucial for any authentic change process, since “The process of influencing social change begins with the process of personal change” (McNiff, 2002, p.23).

From the above discussion, action research could be understood as an individualistic process, but this kind of research does not end here. Although it starts with each actor, in any role, involved in the research being ‘reflexive’, i.e. to reflect on his or her actions and try to analyze what he/she is doing and why, this is not sufficient because the actor might be engaged in producing self-fulfilling and self-sealing systems of action which are a result of the defensive nature of human beings, and “this will only escalate patterns of error” (Argyris et al. 1985, p.61). Therefore, collaboration between practitioners and “outsiders” is not only essential to “...overcome the traditional gap between research and practice” (Ainscow et al. 2006, p. 52); but also necessary to validate the analysis that the actors’ reflexivity results in. This validation process could be done through a process of collaborative action research where “insiders” and “outsiders” comment on and critique the results of each others’ analysis to arrive at better understanding of development in schools (Ainscow et al. 2006). It can also take other forms where practitioners work in teams with colleagues and hold regular meetings for collaboration, where practitioners reflect with the help of a “critical friend”, or where practitioners work with a consultant who acts as a facilitator by providing support and resources when needed (Stuart et al, 1997).

To understand the process and the dynamics of action research there is a need to understand its origins and its evolution through its implementation by researchers.

5.5 A Brief History of Action Research

Originally action research was not regarded as a process of emancipation; although it is rooted in social change through empowerment and democracy. The researchers that are referred to as the originators of action research are John Collier and Kurt Lewin. Both these researchers worked with deprived communities in the USA as a means to bring about development and social change. Between 1933 and 1945, Collier worked with Native Americans to aid them in developing their communities. Lewin's work (1945) was with a group of factory workers, and its aim was to increase their productivity through raising their self-esteem and through helping them become more independent and more involved in the decision making process. (Adelman, 1993; Corey, 1953; McNiff, 2002; Stuart, Morojele & Lefoka, 1997).

Kurt Lewin was the first to introduce the cyclical process of action research. According to Lewin's theory, action research is an action-reflection process that starts with planning, then acting, then observing and then evaluating or reflecting that will most likely lead to another planning phase in a subsequent cycle and so on (McTaggart, 1991; McNiff, 2002).

Later action research was introduced to educational contexts. In the USA Stephen Corey's work (1953) aimed at improving decisions and practices in education, and in Britain action research was first introduced by Lawrence Stenhouse (Stuart et al. 1997; McNiff, 2002). Stenhouse's approach to curriculum development was characterised by a conviction that teachers need to be involved in the process of curriculum development since "... teaching strategy is an important aspect of curriculum... (and) curriculum development must rest on teacher development" (Stenhouse, 1975, p. 24), and according to Stenhouse teacher development is "... adopting a research and development approach to *one's* own teaching, whether alone or in a group of cooperating teachers" (p.3) (emphasis added).

Another milestone in the history of action research is John Elliot's work in the Ford Teaching Project (1972-1974). Elliot's work was based on the contention that the introduction of sound innovations to a curriculum did not translate into

the implementation of these innovations in the classrooms, and the result was little change in the educational context. Elliot proposed a project that would involve teachers in a process of action research in order to identify and then plan for ways to overcome the obstacles that were standing in the way of real change in classroom practices (Adelman, 1993). Elliot's contribution was in redefining the "reconnaissance" phase of action research to include analysis and not just fact-finding and to be a recurring part of the process and not just at the beginning. Moreover, Elliot emphasised that the implementation of action is not a straight forward process; the researcher needs to allow for change in the plan and to evaluate the action with respect to the extent to which it was implemented. Elliot's contributions resulted in a modified model for action research (McNiff, 2002).

In 1986, Wilf Carr and Stephen Kemmis added a new dimension to the definition of action research. These researchers explained that teacher development cannot be achieved by solely looking at teaching practices because these practices are shaped and governed by a multitude of factors that define the social and the political context in which they take place. The social situation and the power relationships in schools and other educational institutions can foster teaching practices that serve the perpetuation of the status quo. Accordingly, participants in action research need to expose these social and political relationships and challenge their definitions of reality through critical inquiry, and then consider ways to introduce changes at all levels (the individual, the institution, and society as a whole) that aim at making societies more democratic and more just. Carr and Kemmis's (1986) addition to the definition of action research is in stressing the importance of developing both the "rationality" and the "justice" of practices and situations in which these practices take place.

Although Kurt Lewin is regarded as the originator of action research, he did not write extensively on the process of action research and did not explicitly explain his views on the philosophy and methodology of social science (Peters & Robinson, 1984). This left space for later action researchers to come up with varied interpretations of Lewin's theory, and accordingly, action research

developed in different directions with diverse interpretations and implementations, and today action research is claimed to be difficult to define.

5.6 Action Research Today

What is agreed on among action researchers is that it is a process that is based on action and reflection, but variations in the implementation of the research are quite clear. In an attempt to understand and categorize these variations Peters and Robinson (1984) analysed the work of 11 action researchers and came up with a list of 15 characteristics for action research; these researchers concluded that there are two versions of action research. The first version, and the most prevalent one, views action research as a mere methodology, while the other version and which is adopted by researchers such as Kemiss (1988), Elliot (1972) and Argyris (1980), emphasises the emancipatory potential of action research and gives importance to the participants' beliefs, values and intentions.

In a similar attempt to define what action research is and what it is not, McTaggart (1991) outlines basic principles that can guide action research, and he emphasises that this kind of research needs to be concerned with changing both the individual and the culture of the groups, institutions and society through a democratic process where all participants play equal roles in all the phases of the research.

McNiff (2002) acknowledges that there needs to be general principles for action research, but she cautions that the models that are presented by the different researchers are to be treated as guidelines rather than rigid principles that do not allow for the unpredictability of the real life contexts where action research is carried out. McNiff explains that due to the complexity of real life educational contexts action research would be in the form of "... spirals of action reflection (that) unfold from themselves and fold back again into themselves... (this would) communicate the idea of reality which enfolds all its previous manifestations yet which is constantly in a state of balance within disequilibrium" (p. 56).

McNiff's discontent with previous linear models of action research is based on her experience with action research; she, like other critics of the many attempts

of action research, realizes that in many instances this research does not arrive to concrete and measurable change (Peters & Robinson, 1984) and is not characterised by rigor as all respectful and credible research needs to be (Cohen & Manion, 1980). This could be explained in the light of two of the main characteristics of action research; the first is that action research stresses less data collection and data analysis and more the processes of collaboration, dialogue and empowerment (Reason, 1998), and the second is that when implementing action research the researchers are usually confronted with the discrepancy between the clear cut descriptions of the theoretical literature and the messiness and lack of order in working within real life contexts (Dickens & Watkins, 1999).

Therefore, since action research takes place within real contexts that are characterised by high levels of complexity which are the result of the diverse array of factors that interplay within these contexts, it becomes nearly impossible for the researcher to delineate all the factors, their kinds and levels of influence and their continuous change through their interaction. To list a few of these factors in the educational context, for example, there are the teachers, the curriculum, the students, the parents, the administrators, the local authorities, and the educational policies. Each of these factors brings with it to the context its social, economical and educational backgrounds, and each interaction between any two factors and their backgrounds influences the factors themselves and makes a change in the backgrounds. This is one way to explain why some critics of action research feel confused and frustrated with it and doubt its potential to bring about real and sustainable change.

It is the reality of action research that keeps researchers looking for new ways to define it and for new models to guide it, and it is this reality that underpins the presentations of new models, such as the generative transformational evolutionary model presented by McNiff (2002), that is claimed to "... emphasise the creative and spontaneous aspects of living". This model, and similar ones, depicts action research as a process that is guided by the need of the practitioners involved, and that aims at personal and professional change of attitudes, perspectives and values, as well as changes in practice (Howes, 2001).

5.7 Action Research and this Study

As mentioned earlier, it is the main aim of this study to engage teachers in a process that would start with exercises that would facilitate their understanding of themselves and their contexts, in order to identify changes that need to be introduced in their contexts for them to develop their practices and their roles, then the teacher can plan for ways to implement these changes, and evaluate them, only to start thinking of new ways to understand, plan, change, evaluate and so on, i.e. the aim is to arm teachers with skills that would allow them to be engaged in a continuous process of personal and professional development.

To work towards this very ambitious aim, I needed a research approach that would be in line with my epistemological beliefs and that could empower teachers by acquiring essential skills and by believing that they can make use of these skills to introduce improvements in their personal and professional selves. More explicitly, the research method would need to accommodate:

- A self-awareness exercise that would aid teachers to identify their beliefs and understand their classroom practices in the light of these beliefs.
- A safe context that would encourage teachers to plan for changes that they feel are necessary, to implement these changes and to evaluate them.
- A means of support that would facilitate the process of self-awareness, planning for change and evaluation of change, all in the aim to help teachers to realise their ability in introducing change in themselves and in their contexts.
- An educative process that not only develops teachers' self-esteem, but also develops their skills in designing and implementing change.

From the above discussion of action research, its origins, and the way it has evolved, it seems that this kind of research could be instrumental in realizing the aims of this study; again, more explicitly, action research:

- Starts with a reconnaissance phase that allows not only for fact-finding but also for analysis of the what is found; in this phase the participants are involved in identifying their beliefs and their

behaviours which are dictated by these beliefs; they are also involved in understanding their contexts with the factors that play a major role in shaping these contexts (Schon, 1983; Carr & Kemmis, 1988; Elliot, 1991, 1997; McNiff, 2002).

- Is a process that facilitates change, starting from the individual and leading to change in the individual's context whether in an institution, a community, or a society as a whole (Elliot, 1997; McTaggart, 1991).
- Is a democratic process where participants play equal roles in planning for changes and ways to carry out these changes, i.e. it is a process that plays down the power relationships and advocates a bottom-up change plan rather than the other way round (Elliot, 1997).
- Is an educative process that aims at empowering participants with skills, particularly research skills that would pave the way for further planning for development in educational settings (Elliot, 1997; Walker, 1994).

Considering the above characteristics of action research makes it clearer to me why action research seemed, from the first stages of this study, an attractive research approach, and why with further investigation it was chosen to be the guiding process. In the next section, I will explain in more details the way the research was implemented, how the participants (the teachers) were engaged in the process, the activities that they were participating in, the way the data was collected and analysed and the difficulties faced and the ways these difficulties were dealt with.

5.8 Action Research in Developing Countries

At the beginning of this section, I feel that there is a need to clarify a point that would help to put the research design and its implementation into perspective and make it clearer. As a first time action researcher, I approached this research with a certain degree of naivety. Although I had read extensively about action research during the initial planning phase of the study, now I realize that I was unable to grasp the extent of difficulties involved in this kind of research. These difficulties are especially evident in developing countries where the educational systems are highly authoritarian and where teachers are implicitly trained to

follow the instructions of their superiors until they develop thinking habits that need to go through an extensive process of unlearning before any real learning can take place. This is referred to by researchers who implemented action research in developing countries (Walker, 1994; Stuart et al. 1997; Pryor, 1998; Stuart & Kunje, 1998; Lewin & Stuart, 2003).

Stuart and Kunje (1998) report on implementing action research in six Malawi schools. They question whether the educational environment in African countries is "...so uncondusive that one can not speak of 'action research' in such contexts" (p. 377). The researchers compare between action research in the USA and the UK and action research in developing African countries. While teachers in the UK and the USA "...were relatively well-qualified and motivated and saw themselves as 'professionals'" (p. 378), teachers in the African countries saw themselves, and were perceived by others, as "...government servants, as 'deliverers' of a nationally-decided curriculum, rather than as 'reflective practitioners'" (p. 379). These researchers explain that in these countries "...the cultural and societal contexts tend to be more hierarchal and authoritarian", and the result would be teachers who are "...socialised into dependence and had internalised the subordinate role" (p.380).

Stuart and Kunje (1998) conclude that although they felt that their interventions were successful in many ways and they were able to find evidence that showed changes in head teachers and teachers' ability to work collaboratively and to reflect about their work, they were faced with limitations that hindered the development of a "critical community". This was due to the rule of hierarchy in the education system and due to lack of experience with new ideas such as the "reflective practitioner".

Pryor (1998) also refers to problems that researchers face in conducting action research in West African schools. He explains that the evidence that he has presented shows that "... the key problem is that the teachers' lack of a sense of their own agency make any critical reflection on classroom action irrelevant" (p.226); he suggests that this 'disempowerment' of teachers is deeply rooted in an authoritarian culture where teachers do not perceive themselves as enjoying

any degree of autonomy. Pryor also states that "...the two most important prerequisites for anyone taking an active role in action research (are) their ability to study their own activity and also to take steps to change it" (p. 226) seem to be absent in these contexts and this works against the development of action research.

Walker (1994) introduces an action research project in South Africa. She describes her difficulties in engaging teachers in reflective practice, and explains that "...an impoverished educational background, experience of the structural power of a centralised education authority, and state repression" all contributed to teachers being "...unwilling to challenge authority", and to subscribe to the view of "...teachers as technicians" (p. 67). Walker concludes that change has to start somewhere, and in similar educational contexts action research needs to be reformulated to aim at developing reflective teaching first, before aiming at teachers becoming researchers.

Although I had read the articles in which these researchers discuss their difficulties with action research in developing countries, I did not believe that these would apply to the same extent in the context of my research. Lebanon is a developing country, but it is believed to have one of the best educational systems in the Arab world. However, it seems that this reputation is based on the success of the private schools in Lebanon that cater for the middle and upper class of the Lebanese society. Accordingly, my naivety is a result of my limited experience of 15 years as a teacher and later as a school counsellor in a private school in Lebanon. The context I worked in is characterised by being more "modern", more open to change, and more influenced by the Western thought such as liberty and democracy. The school had the resources that allowed for the teachers to attend seminars and workshops in Lebanon and abroad where they were introduced to the latest innovations in education and where they were encouraged to experiment, reflect and critically analyse their practices and their schools. However, my research was implemented in public schools where students come from low-socioeconomic backgrounds, where resources are very limited and where teachers need to abide by the policies of the local and the central educational authorities.

I did not realise that the differences would be so great and that one could not treat the two contexts, the private school and the public school, as similar. This brings to mind what Paulo Freire referred to after moving to the USA from Latin America, "... 'third world' is not a geographical concept but essentially socio-political in nature" (Crotty, 1998, p. 154).

After going through the process of designing and implementing an action research project, I feel that I have gained some maturity that would support me in understanding and explaining what was actually going on through the different phases of the study. I will start by describing the setting of the research, the participants and how they became involved in the research, and then I will describe the cycles of the research and how the data collected and analysed from each cycle fed into the plan for the next cycle.

5.9 Description of the Setting

This study was conducted in three schools in Saida, a city to the south of Beirut, the capital of Lebanon. Two of the schools were public (state) schools; these will be referred to in the study as School A and School B. The third school was a privately owned low-fees school that is subsidised by the government, and this will be referred to as School C. All three schools are near to the city centre but they are located away from the main streets. Although the three schools are in general similar in terms of student socio-economic background, teacher qualifications and educational background and availability of resources, in this section I will try to describe each school alone to try to present the reader with a feel of the atmosphere in which the study took place.

School A has around 1500 students distributed among 2 preschool grades (age range 4 to 5 years), 6 elementary grades (age range 6 to 11 years) and 3 intermediate grades (age range 12 to 14 years). Each grade level is divided into 4 sections, A, B, C and D. Students are distributed randomly among these sections and teachers are assigned to teach a school subject to one or more sections either at the same grade level or at different grade levels; hence students are taught by more than one teacher. In each class there are between 25 and 30 students and

the classrooms are quite spacious with high ceilings and large windows. The students in the preschool and in the 1st grade are seated in groups of five around circular tables, but in the other grades students sit in pairs on traditional two-seat desks set in rows. The walls of the classrooms in the preschool and the first grade were decorated with colourful posters related to their lessons, such as the weather, the numbers, and the letters with some samples of the students' work. However, the other grade level classes had nearly bare walls.

School B's physical setting is nearly the same as School A, this could be explained by the fact that both are public schools and maybe designed and built in a similar manner. This school also had around 1500 students who are also distributed in a similar manner to that of School A. However, School B does not have a preschool and all the classroom walls are nearly bare. Moreover, in both schools there is a large playground at the centre of the three buildings that house the classrooms and during breaks students seem to be in a hurry to get to the playground to let out their bottled up energy. Each school had a computer room with around 20 computers which students shared during the computer class. Each of the schools also had a library, but there were a few books on the shelves and during my visits to the schools I did not see students in the libraries except when they were taking exams.

During the study, I visited each of the participating teachers' classes two times, once to take observation notes on the teachers' classroom practices and the other to video record the lesson procedures. These visits gave me some insight on how lessons were conducted. In both schools, as the teacher entered the classroom, the students stood up and greeted her with a chorus of "Good morning" or "Good afternoon" and the teacher usually replied with the same greeting. Except for 4 out of the 12 classes that I visited in these schools, the lessons were usually conducted in a traditional way; the teachers were at the centre of the teaching-learning process; they usually explained a concept on the blackboard and the students were expected to follow; then later they were asked a few questions or asked to read a few lines from their textbooks or to do some exercises in their exercise books or workbooks. The lessons usually ended by teachers writing on

the board or dictating to the students the homework that they had to do for the next day.

On the 4 occasions where teachers tried to introduce a group work activity or a role play activity, the students seemed more enthusiastic and participated more, but even during these lessons the general feel was that the teachers were in full control and the students were mainly following instruction with little space for individual preferences or creativity. Another interesting observation was that there were no major incidents of misconduct; this could either be explained by the fact that the classes I visited were the 1st, 2nd and 3rd grades where students are still too young to “break the rules” or by the fact that I was a visitor in their classrooms and they felt that they had to impress me. However, in each class I visited there were usually a few students, around 2 or 3, who did not seem to be paying attention and who were in general not asked by the teachers to answer questions or to give solutions to exercises. Later, when I asked the teachers about these students the answers were fairly similar; these were students whom the teacher had given up on because “everything has been tried with them” and they do not seem to be learning any thing in class and because their parents did not show up when invited to teacher-parent meetings.

During breaks I was invited by teachers to have coffee with them in the staff rooms. Here again there were a lot of similarities between the two schools. The staff rooms were also spacious and teachers sat in them during breaks and free periods. In general there was a positive atmosphere and teachers seemed to enjoy each others’ company. The conversations were mostly about their lives outside the school, such as the family, housework or social activities, except for a few incidents when two teachers sat in a quiet spot and discussed the questions on or compared the results of a common test administered to their same grade students.

Teachers in these schools always seemed rushed for time; they showed little enthusiasm towards engaging in conversations or activities about their students or their work and at times they seemed defensive when asked about their classroom practices. The general impression that one gets is that they are too

busy in school and outside school; hence, they would rather not take part in any activity that added to their overloaded schedules.

School C had nearly the same number of students as in Schools A and B and a similar grade structure. However, the physical atmosphere seemed livelier. This school was more recently built than the other two, and as you enter the school you notice the use of colour on the walls and the presence of large and colourful murals. The classrooms are smaller than those in the other schools, but students in grades 1, 2 and 3 are seated around coloured circular tables. The classroom walls are covered with posters and samples of students' work and projects and in each class there is a pigeon-hole shelf where students place their copybooks and exercise worksheets.

Moreover, the work environment in School C was different, although teachers also complained of being overloaded with tasks related to their classroom and with responsibilities outside their classrooms, such as attending a computer literacy course which was mandatory for all teachers. Teachers in this school also expressed higher levels of anxiety in relation to evaluation and judgements made by their subject coordinators and the school principle. This could be explained by the fact that in private schools the school administration has a free hand in hiring and firing school personnel; however, this is not the case in public schools where local authorities and school administrators are much more restricted in this area due to the complicated and lengthy bureaucratic procedures.

In general, teachers in School C showed more enthusiasm when they were asked to attend a meeting or to engage in a reflective activity. This could be explained by the fact that I have worked on previous projects in this school and had the opportunity to establish rapport with a number of them. Moreover, the 12 classes that I visited in this school were, in general, more animated. Teachers and students seemed more active and in nearly every lesson I observed or video taped the teacher introduced some kind of activity, such as group work, role play, a game or a song. This again could be attributed to the fact that these teachers were aware of my approach to education and, accordingly, they were trying to impress me in one way or another.

The staff room atmosphere was different in this school as well. Although some teachers were engaged with informal conversations, the majority seemed busy, either preparing for a classroom poster, a display for an exhibition, or correcting copybooks and test papers. However, I felt that the general atmosphere was rather “heavy”; there was less laughter and less ease.

5.10 Seeking Volunteers to Participate

In 2002, I was the coordinator for the School Principles Network in Saida and Neighbouring Towns. This allowed me to interact with and build a professional relationship with a number of school principals, and in September 2004, at a general meeting for the Network, I asked for permission to address the principals, and I presented to them the aims of the study and what it involved. At the end of the presentation, three elementary school principals showed interest and asked me to visit their schools and meet with the teachers and encourage them to volunteer to take part in the study.

After meeting with the teachers in each school, and going through the same presentation, and assuring teachers that what they say or contribute to the research will not be discussed with anyone else unless they give me the permission to do so, 2 teachers volunteered from School A, 4 from School B and 6 from School C. The teachers were all females, since there are very few elementary male teachers. They had similar educational backgrounds; they held BA degrees from local universities. 3 had degrees in Arabic Literature, 2 in psychology, 3 in English Literature, 3 in sociology, and one in philosophy. None had had any formal teacher training, but the majority had attended workshops in teaching methodologies. The teachers, however, varied in terms of experience, while two had been teaching for 15 years, one had been teaching for two years and the rest had an average of 5 year experience.

5.11 Procedure

In this section I will describe the way the study was conducted along with the changes that were introduced to its original plan; accordingly, in order to explain the procedure of the study, it is necessary to present snapshots of findings along

side the different phases since each was informed by the initial findings of the previous one.

In October 2004, we started with the first phase of the study, and I arranged to interview each teacher alone. This set of interviews had one major purpose; it would allow me to know the participants better and to start to develop a trustful relationship with them which would be a necessity for them to open up and be ready to explore their practices, what they were pleased with and what they would like to change or develop. The interviews were semi-structured. I started with some ice-breaking questions about the teacher's experience in teaching, and then the new curriculum was discussed and the teacher was encouraged to explain her experience with the reform, including the positive aspects and the negative aspects and the difficulties that she was facing. At the end of each interview, I explained to the teacher that I would like to attend one of her classes, take some notes in relation to the points she has raised in the interview and discuss with her what went on in class in light of these points. They were in general welcoming to the idea, and arrangements were made for the next set of interviews.

Before starting with the next set of interviews, I listened to the recordings of the first set, and for every teacher I jotted down 2 to 3 points that I would like to explore further with her in order to engage her in a process of understanding these issues and planning for changes that would help to deal with them. The issues were mainly related to what the teachers identified as problem areas, such as conducting group work activities, evaluating student learning through non-traditional methods (i.e. methods that were less dependent on memorisation), lack of sufficient time to complete the lesson assigned by the teacher's supervisor, and lack of availability of resources.

In November 2004, I observed the classes and took notes; then I sat with each teacher to discuss what went on during the class. It was here that I started to realize that there was a need to encourage teachers to engage in deeper levels of reflection which is a main prerequisite to understanding their practices and the context of these practices. The first question that most teachers asked me in the

interview was what I thought of their performance in class. I explained again that I was not here to evaluate and that they were the ones that could really evaluate themselves, since they are the ones who know their students' needs and abilities and, accordingly, what the students need to learn and how they would learn best. The teachers' reactions to this reply were also similar. Some stated explicitly that they would find it more beneficial to have feedback from me, and others just ignored my answer, and the feeling I had was that they did not really understand how I could help them if I was not ready to tell them what to do. This set of interviews opened up to me the issue of teachers' ability to reflect in authoritarian educational contexts. When I asked a teacher to explain a certain activity that she had carried out in her classroom, the answer reflected a certain level of defensiveness and the teacher usually resorted to explaining that this is what the teacher guide says that she needs to do, or this is what her supervisor has asked her to do.

This is where the evolution in the research design started. While the original plan aimed at improving practice, with every step in the research, the aim shifted to developing teachers' thinking skills and reflection which is a prerequisite for becoming involved in identifying areas that need improvement, planning for improvement, implementing the improvement plan, and evaluating whether improvement actually took place (Schon, 1987). Therefore, the issue in question became how teachers can become engaged in activities that would help them to develop the prerequisite thinking skills for deeper reflection and to take responsibility for their practices, rather than believing that they have little influence on what is going on in their classrooms and in their schools as a whole.

According to Brookfield (1995) participating in critical conversations with peers leads to better understanding of what teachers experience in their classrooms. These discussions bring to the teacher's awareness new perspectives of her experiences and help the teacher to realize that there are others who are facing similar difficulties and opens up alternative ways to deal with these difficulties. Based on this, the next step was to arrange for the first general meeting for all the participating teachers; however, this proved quite difficult due to time constraints and teachers' overload with preparations and corrections for their students. After

much negotiations and rescheduling we managed to meet after school hours on the 27th of January, 2005. The meeting took place in School C, and it lasted for one hour. Since the teachers came from different schools, they were at first reluctant to speak in the meeting, and I felt that I was doing most of the talking and a lot of it was going over the research goals and the importance of teacher input for educational reform. Half way through the meeting, the teachers started to participate; most of the discussion was based on restatements of the issues that they had discussed in the first set of interviews, and they seemed to agree that their difficulties were mainly caused by two main problems in the educational system; first, students were not equipped with the necessary behavioural and academic skills that would allow the teacher to engage in the more 'modern' learning activities that the new curriculum expects teachers to introduce in their classroom practices, such as group work and more child-centred learning. The other problem is that teachers felt their superiors, whether the subject coordinators, the local authority inspectors, or the school principles, did not really understand what the teacher is faced with in the classroom in terms of limited resources, time constraints, and student academic and social background. Teachers felt that what they were asked to do in their classrooms was mostly unrealistic, and they had to resort to teaching in the traditional ways that emphasized memorisation in teacher dominated classrooms. Again the teachers were engaging in defensive mechanisms where there was a great deal of blaming and little self-evaluation, and both proved to be impeding to deeper levels of reflection.

There was a need to shift teacher's focus from what others were doing (or not doing) to what the teacher herself was doing. Teachers needed to see themselves as equal partners in the educational process and to realize their potential in introducing change or in planning for change where they saw there is a need for change. This would encourage teachers to engage in experimenting with what the new curriculum, and their supervisors, was trying to introduce to the educational context. So the next step needed to bring back the focus of teacher reflection at looking at herself and at her practices, and at the impact of these on her students' learning.

Videotape is considered as one of the most complete means for encouraging reflection because it allows the teachers to see the discrepancy between what they think they are doing in their class and what they are actually doing (Kottkamp, 1990). So to encourage this kind of reflection, we arranged to videotape one class for each teacher; the teacher would select the class that she wants video taped then she would see the tape and try to reflect on what she saw in it. Teachers were assured that the tapes were “for their eyes only”, and this proved helpful in encouraging them to go through the exercise.

Again, much scheduling was needed, but we succeeded in making all the necessary arrangements and during February and March 2005, the videotape and reflection exercise was carried out. The students seemed thrilled when they saw the video camera in their classroom, and although at first they became excited and asked many questions, a few minutes later they became accustomed to the idea and forgot about me and the camera, and the lesson went on as close to normal as possible. Each teacher watched the videotape directly after the class; most were very silent at first but eventually made a few comments on what they saw. I tried to probe their reflection through asking questions such as: “What was the objective of this activity?” and “Could you explain what you were trying to do here?” and then later “How would you evaluate this activity?” and “Did you feel that you met the objective you were intending to meet? Could you explain further?”

Even when the teachers attempted to reflect, their reflections were on the technical level, i.e. their reflection focused on transmitting the message in the best and most efficient way possible and their students were perceived as passively absorbing the messages (Griffiths, 2000). All other comments were “cosmetic” in nature. This was in accordance with what Acheson and Gall (1992) mention in their book *Techniques in the Clinical Supervision of Teachers*. These authors stated that when teachers are first exposed to videotapes of themselves they “tend to focus on the ‘cosmetics’ of their performance (e.g. physical appearance, clothes, voice quality)”, and that teachers tend to be “captivated by the image on the TV screen and do not listen to what is being said” (p. 148).

A second round of videotapes might have proven to be more effective in terms of reflection, but the Easter holiday and the final examinations after it made it very difficult to schedule another round of recordings. However, we were able to arrange for two other kinds of reflection exercises that were possible to fit within the teachers' tight schedule.

In Schools A and B, the teachers expressed their concern with the issue of cooperative learning and group work; however, they seemed to have little theoretical background in relation to these areas and were at loss on how to experiment with this teaching methodology. I found this as an opportunity to introduce the next exercise for reflection. Educational researchers with an academic orientation emphasise the need for a theoretical background to base reflection on. Stone (1994) explains that there is a need to expose teachers to theoretical input and to demonstrate to them how this input can be used in their classrooms. Sparks- Langer et al. (1990) explain that teachers need to learn about concepts; then observe examples of it, and then experiment with it in a classroom; this will help teachers to reflect on the concept in a more meaningful way. Accordingly, and upon the request of a group of teachers, we arranged for a workshop on cooperative learning and the majority expressed their willingness to attend. I prepared some articles on cooperative learning, its theoretical background and ways to implement it in the classroom, and on May 6th, 2005, I used the method of group work to present these articles to the teachers. Both the theoretical background and the first hand experience with learning through cooperative learning encouraged teachers to experiment with group work in their classrooms. Over a period of two weeks they planned and implemented classes using cooperative learning, and they wrote reflection papers that showed higher levels of critical analysis and self-evaluation than in previous reflection exercises.

In School C, the teachers were more concerned with getting feedback on their classroom practices. They expressed that they felt it would be beneficial to "see their classes in the eyes of others". This provided the opportunity to plan for a peer-observation exercise. Accordingly, teachers were paired to act as "critical friends" (Stuart et al., 1997). Each teacher observed her 'friend' during one of her classes, and then every pair met and the teachers gave feedback to each other.

I attended the meetings and taped the feedback. Again the feedback sessions reflected development in teacher reflection to more advanced levels, and teachers expressed that they found the exercise quite beneficial because it “opened their eyes” to how they conducted their classes and helped them to plan for changes in their practices.

These two reflection activities took place during the month of May. After that teachers were again busy with final examinations and end of year activities, so it was not possible to arrange for any further activities. However, I was able to arrange for one visit in each school where the teachers and I met briefly and discussed informally the research process, what they found most beneficial, what they learnt about themselves, and what they would propose for further professional development.

The data collected during the interviews, in the general meeting, from the teacher reflection papers and during the feedback sessions will be discussed in detail in the results and discussion chapter.

5.12 Second Order Action Research

So far I have discussed action research as research carried out by the teacher, the practitioner, or the ‘insider’, and where the ‘object’ of the research is the practitioner’s teaching practices; i.e. action research of the first order. However, in *Action Research for Educational Change* (1991), John Elliot describes another level of action research, research carried out by the researcher or the ‘outsider’ where the focus of the inquiry is on the “...problems of facilitating teachers’ reflective capacities” (p. 27). Elliot labels this kind of research as second order action research and defines it as “... the process of reflectively analysing (the researcher’s) experience as an action-research facilitator” (p. 13). In this study, I, as the researcher, was also engaged in this kind or level of action research and, in this section, I will discuss my understanding of second order action research and contrast it with first order action research.

Elliot suggests that academic action researchers who are trying to facilitate action research need to be actively involved in inquiry into the theory of action research

or as explained by Lisoto, Pozzo, and Somekh (1998) as ‘...(theorising) on action research as a strategy for training, research and change, when the question no longer refers to the means but to the ends, the question is turned into ‘Why this strategy in this context?’” (p.222). These researchers contrast this kind of research with reflecting on the best strategies to develop teachers’ reflective capacities where the researcher asks the question “How can I improve my facilitating strategies?” More explicitly second order action research is the “...the theoretical knowledge derived from the research itself” (Lisoto et al. 1998, p.222).

Looking back at the process of this study, I realise now that I was engaged in both first order and second order action research. Due to time constraints and to the fact that the teachers were not experienced in reflective practice, I was not able to introduce them to all the elements of action research and my facilitation was limited to developing teachers’ ability to reflect on their practices and their contexts; accordingly, it was I who was involved in collecting data, analysing data, coming up with suggestions for change and implementing these changes in the research design. This could be categorised as first order action research; i.e. research concerned with “How best to do something?” (Lisoto et al. 1998), more precisely, “How best can I facilitate the participating teachers’ reflective thinking?” Here, I examined and learned how best to change my behaviour in order to facilitate teacher reflection; accordingly, I tried new strategies such as “Theory based reflection” and “Peer observation” which were not included in the original research design.

However, at the same time, I was engaged in theorising about action research in the Lebanese context; i.e. in “How best to learn something?” (Lisoto et al. 1998) or more specifically “How best can the participating teachers learn how to think reflectively?” To elaborate, the questions that were guiding me in this area of the research were more concerned with “What are the most effective strategies to develop the reflective practices of teachers in Lebanese primary schools?”, “What are the necessary conditions that need to be present for these strategies to effect change?” and “What role or roles does the facilitator need to assume in this and similar contexts and how best can this role or these roles facilitate the

process of action research starting from developing reflective thinking among teachers in primary schools in Lebanon?" This level of reflection is considered by researchers as reflection that leads to second-order learning (Somekh & Thaler, 1997) or "double-loop learning" (Argyris & Schon, 1978). This level of learning is more concerned with questioning the values, assumptions and policies that lead to action and only when these are examined and modified does second order learning or double loop learning take place. This kind of learning is contrasted with first order learning or single loop learning where actions are modified according to the difference between the expected and the obtained outcomes.

My Analytical Memos, which were maintained throughout the study, were the main arenas for monitoring and reflecting on my experiences, concerns and role(s) assumed during the study and, while engaging in reflection on strategies that would facilitate the process of action research -mainly teacher reflection- I was simultaneously engaged in a second order inquiry which led to enhancing my understanding of action research and what it entails and of the Lebanese primary school teachers and the context in which they work. Therefore, the emergent understandings about the evolution of my thinking were informed by recurrent hermeneutic cycles of interpretive readings based on the two major sources of data: i) transcripts of teachers' interviews during the different phases of the research, and ii) my analytical memos. This area of the research helped me to explore, not only my understanding of action research, but also my beliefs, attitudes and perceptions of the events as they took place during the course of the research which in turn led to exploring the assumptions, attitudes and beliefs which underpinned my facilitating of reflective thinking. In this way, action research of the second order informed the structure of the first order action research; i.e. the actions undertaken by the researcher in the design and implementation of strategies as a result of the researcher's learning and, as mentioned earlier, this learning informed my decisions related to changes in the original research design which was a result of my evolving understanding of the purpose, process and expected outcomes of an action research project. This led to a better understanding of how the first order action research was influenced by the second order action research.

Moreover, being an “insider” and an “outsider during the course of the study, helped me to see both perspectives where each complemented and informed the other. My concern was to relate my reflections to my actions and to try to understand the process of change in the particular context with which I was dealing and to try to understand how change can be effected in this context with these teachers. Accordingly, my research design evolved as a result of my learning through my interaction with the teachers and their educational context and this helped me to adopt a new perspective that took into account their perspectives. The result was a new perspective on action research and its implications in the Lebanese context.

5.13 The Role of Researcher

The literature on action research stresses that the researcher’s role is a facilitative one where participants have ownership of the research, i.e. it is the participants who decide on the content of each step of the research process and the researcher acts as a catalyst in the process. However, the reports on action research show that in many instances, especially in research conducted in developing countries, the researcher’s role goes through a process of redefinition to accommodate for the difficulties and issues that arise along the research process (Walker, 1994; Pryor, 1998; Stuart & Kunje, 1998; O’Sullivan, 2002; Reed, Davis & Nyabanyaba, 2002; Wijesundera, 2002). These researchers explain that what is taken for granted in terms of teacher qualifications and capabilities in the West can not be presumed when conducting research in developing countries. Here teachers are not trained for basic skills that are needed to play the role that is defined by action researchers, and the authoritarian educational contexts are inhibiting to the development of such skills.

Therefore, just as the research design of this study went through a process of evolution, so did my role as a researcher. I had started with the intention of playing the role of the facilitator in a research process where the teachers plan, act and evaluate, but I was unable to arrive at this intention. The first order research that was originally designed was not carried out by the participants, but it was I who tried to make sense of what was going on, plan for changes, collect data, analyze it, reflect on it and evaluate the outcomes. At the same time, I was

engaged in research of the second order where the researcher “engages in a critically reflective process before, during and after a situation that s/he is facilitating” (Orland-Barak, 2004, p. 34), and where the outcome of this second order research informed the design and structure of the first order research. The data collected in this second order research was also analyzed and reflected upon; the analysis process will be discussed in the next section and the results will be discussed in the results and discussion chapter.

5.14 Data Collection and Data Analysis

As stated above data were collected from each phase of the research and the majority of the data were collected in the form of **teacher interviews**. There are 1) initial teacher interviews, 2) teacher interviews after class observations and 3) interviews while teachers watched the videotapes of their classrooms; all these interviews were tape recorded. I also collected data during the teachers’ meeting; these were recorded in the form of meeting notes which I later used as basis for a **meeting write-up**. Data was also collected in the form of **teachers’ written reflections** which were written by teachers after they had implemented group work in their classrooms. The last set of data was collected during **teacher feedback sessions** after peer observation; these sessions were also tape recorded (Refer to Appendix B for a list of the interviews/ feedback sessions and teachers’ written reflections).

The data collected and their main purposes are presented in the following table in relation to the phase of the study:

Date	Research Phase	Schools involved	Number of teachers involved	Type of Data Collected	Main Purpose of Data
Phase 1, October /04	Getting to know the participants (RQ 1)	A, B, C	12	Semi-structured interviews	- Building a trustful relationship with teachers. - Identifying areas for further investigation.

Phase 2, November /04	Reflecting on classroom practices (RQ1 & 2)	A, B, C	12	Teacher interviews based on researcher's notes taken during teacher's class	- Trying to identify theories that underpin classroom practices. - Trying to encourage reflection-on-action.
Phase 3, January /05	Group Discussion (RQs 1,2 &3)	A, B, C	12	Meeting write-up	- Trying to develop prerequisite thinking skills that are essential for higher levels of reflection.
Phase 4, February & March /05	Reflecting on Videotapes of teachers in their classrooms (RQs 1,2 &3)	A, B, C	12	Teacher interviews and reflections while watching the videotapes	- Helping teachers to see the discrepancy between what they think they are doing and what they are actually doing in their classrooms. -Developing higher levels of reflection.
Phase 5, May/ 05	Theory based reflection (RQs 1,2 &3)	A, B	6	Teachers' written reflections	-Encouraging theory based reflection.
Phase6, May /05	Peer observation (RQs 1,2 &3)	C	6	Teacher feedback session.	- Becoming a 'critical friend'. - Encouraging higher levels of reflection.

Table 5.1; Data Collection during Research Phases

Each phase of data collection opened new issues and problems to be addressed in the next phase and in general the data were treated in the following way (Refer to Appendix A for the Summary of Data Collected):

- **In phases 1, 2, 4, and 6**, I listened to the tape recordings of the teacher interviews and made notes on the issues that seemed most related to what I was investigating during the particular phase (for example, difficulties that they were facing in implementing the new curriculum, teacher reflection, and level of teacher reflection) , and I selected excerpts related to these issues, transcribed them and gave them titles; these excerpts were identified by the teacher's first name, phase of research, and location on the MP3

recorder or tape number; this was the first step in the coding process of the data (Refer to Appendix F for a sample of transcript with preliminary codes).

- **In phase 3**, I read the notes that I took during the meeting and made a write-up of what went on in the meeting. Again sections that seemed most salient were coded; and I made notes of major issues and themes that need to be investigated further.
- **In phase 5**, I read the teacher reflection papers and highlighted sections that seemed most relevant to teacher reflections on implementing group work in the classroom.

5.14.1 Summary sheets: After each phase of the research process, I wrote a summary sheet that included brief descriptions of the persons involved and the events that took place during the phase. Each summary sheet included the main concepts that emerged, the issues that needed to be addressed in the next phase, questions that needed to be answered and some general notes on the phase; the summary sheets helped me to keep my focus during the data collection process and to inform the next step in the research process, they also proved useful in finding some order within the chaotic and confusing process of data collection (Refer to Appendix D for a sample of a summary sheet).

5.14.2 Coding: The titles that emerged from phase one developed into codes; this first set of codes was basically informed by my assumptions about the teachers and their experience with the new curriculum and by the theoretical background of the research. These were mainly descriptive codes, but along the phase of the research process they were frequently revisited and revised and some developed into interpretive codes (Miles & Huberman, 1994); this development was a result of my further understanding of the contexts in which the teachers worked and its impact on the way teachers perceived themselves and their roles.

With repeated revisions of the summary sheets, the lists of codes with their corresponding definitions and excerpts, and my reflections in the analytical memos, I was able to group the codes into preliminary themes; every theme incorporated a group of codes that were related to each other and to a binding concept; these concepts were more inferential in nature (Miles & Huberman, 1994); examples of such themes are 'Teachers' perceptions of the new curriculum' and 'impeding factors to reflection'. This stage of analysis also involved rereading some coded transcripts and in many instances I was engaging in what Lincoln and Guba (1985) call 'filling in', i.e. adding codes, 'extension', i.e. interrogating coded material in a new way, 'bridging', i.e. seeing relationships within codes and 'surfacing', i.e. identifying new themes. Simultaneously with these operations the definitions of codes were also being revised and adjusted; this also informed later stages of coding (Refer to Appendix C for list of codes and themes).

These themes were set into a matrix with the themes placed across the top and the corresponding codes along the side. In each box of the matrix the physical location of relevant excerpts were recorded. With each phase of the research the matrix was reconstructed; sometimes new categories and codes were added and at others themes were renamed and codes were regrouped, all according to what the additional data introduced.

5.14.3 Analytical memos: All through the process of the research, I was engaged in writing memos (Glaser, 1978). These did not have any specific form or structure but were something like a "thinking arena" adjacent to the data collection and the data analysis process. There was no specific schedule for writing the memos, but I wrote a memo when I felt that a certain piece of data related to some theory that I had encountered earlier, or when I was confused by a certain incident and could not make sense of it and felt that I needed to explore my thinking processes and their underpinning beliefs and attitudes, or when I was 'struck' by a certain idea and did not want to lose it, or even when I found a certain relationship among the data while coding. These memos were a major source of data for my second order action research and they proved quite useful when I started to form conclusions about the research. These conclusions were

based on finding relationships among the themes that emerged from the data and on relating them to theoretical concepts and assumptions that triggered and informed this study. A detailed presentation of the conclusions made through the above process will be presented in the results and discussion chapter.

5.15 The Challenges of Trustworthiness

According to researchers and those who evaluate research, it is central to the quality of qualitative research that participants' perspectives are authentically presented in the research report and that the interpretations made from the information gathered are discussed in a transparent manner to establish the credibility of the research findings. To ensure the authenticity and credibility of this research, the process of analysing the teachers' interviews across the different phases of the research process was elaborate and extensive.

At the outset, I listened to each of the teacher's interviews from the first phase of the research process; I then re-listened to the same interview again but this time started the process of selecting excerpts and transcribing them. Here the selection was based on the relevance of the responses to the general topics of the research, such as the new curriculum, student learning, and teaching practices. I listened again to the same interview to check whether something was missed in the previous process of selection and at times new excerpts were added. I then started analysing the excerpts; these were read and reread and with each reading I tried to interrogate them to try to identify themes which later developed into patterns. Moreover, at times during the process of analysing the excerpts, I felt that I needed to re-listen to the interview to check the context.

I went through the same process with each of the teachers' interviews and, since each phase of the research process engaged the participating teachers in a different activity with a different focus, four kinds of data for each teacher were collected. This allowed for comparative analysis of the data where different responses given by each teacher were compared in order to identify points of agreement and to check for points of inconsistency against other evidence in the data. This was necessary to ensure confirmability by providing different sources

of evidence on my interpretations of the teachers' responses (Lincoln & Guba, 1985).

Moreover, since I was aware that "...in qualitative research the researchers are the research instruments" (Frankel & Dever, 2000, p. 120), I was conscious of the fact that the research results could be influenced by my beliefs, my attitudes and my perspectives on education and the context in which the participating teachers were working. Accordingly, during the data analysis process, I made a conscious effort to clear my mind of any prior assumptions and to adopt a questioning mind-set, as recommended by Somekh (2006) in her book *Action research: a methodology for change and development*. This effort to try to understand how my own characteristics and biases might shape my interpretations of the data was regularly documented in my analytical memos which were one of the major sources that provided evidence that was used, both for my decision-making process throughout the research, and for identifying my own influences and actions on the research process. These influences and actions were regularly reflected upon during the discussion sessions which I had with my supervisor. The result of this process was the development of a system that helped me to establish credibility by ensuring that the participants' perspectives have been reported as clearly and as accurately as possible (Lincoln & Guba, 1985), and the development of my self-awareness as a teacher educator and a researcher. Personal reflections on this self-awareness journey will be presented in detail in Chapter 7.

5.16 Ethical Issues

In qualitative research in general and in qualitative action research in particular, ethical issues are an integral component of every aspect of the research design and the research process. Unlike the classical ethnographer, who observes change but does not usually try to cause it, the action researcher consciously tries to change or to improve practice (Zeni, 1998). This might explain the array of ethical issues that need to be explicitly addressed in an action research project. Some of these issues are: informed consent, confidentiality, protecting the participants from harm, the role of the researcher, and the issue of power and ownership of the research.

In relation to the issue of informed consent, it was imperative to start the research procedures with a clear and an extensive presentation of the research and the research process to the teachers in each school; especially because “Free choice about participation is based on accurate information” (Lofman, Pelkonen, & Pietila, 2004). As explained earlier, the first step in the research process was to explain to the teachers what the research was about, what major principles guide the research process and what would be asked of volunteering teachers to contribute in terms of time and effort. Accordingly, since participating was voluntary after being presented with what the research will entail then volunteering was a form of tacit consent. The information related to this area was also repeated individually to each teacher before the first interview in the first phase of the study. These individual presentations proved more effective in relation to consent because teachers felt free to ask questions and were reassured that they could withdraw at any point during the research process.

Another ethical issue was ensuring the confidentiality of the participating teachers. To facilitate the reflective practices of the teachers and to minimize the risk of harming any participant in the study, the following ethical framework was negotiated with the teachers at the initial stages:

- Teachers have control over the access of others to the data generated in their interviews.
- Teachers have control over the extent to which and the conditions under which others can have access to the data collected in their classrooms.

This framework seemed necessary to allow all parties involved to address their beliefs about the new curricula and their teaching practices more candidly, and to give them a sense of control over the study; thus encouraging the participants to be more committed to any changes or innovations that might be suggested.

Moreover, I regularly requested consent before recording the teacher interviews and at times during the interview teachers asked me to turn off the tape recorder because they felt that they wanted to share a point of view with me but did not

want it to be included in the research report. I respected their decisions and felt that this was also important to help them discuss their teaching practices openly and to help me to present their perspectives as authentically and as credibly as possible.

It seems obvious that research that has to do with “human subjects” implies some type of intrusion into their lives (Polit & Hungler, 1993) and this is another ethical consideration that was addressed in this study. At the outset, I was aware that participating teachers will experience emotional and social demands during the course of the study; inviting an outsider to observe their classrooms must cause some kind of anxiety and reflecting about their teaching practices must be emotionally taxing at some point. Accordingly, I tried to make use of all the skills for which I trained and developed during my training for my MA in school counselling. I tried to keep my questions open-ended and tried to reflect teachers views, thoughts and emotions during the interviews, although my aim was to encourage teachers to share with me their problems and difficulties, it was also a priority for me to reduce any feelings of vulnerability and anxiety.

Moreover, since I was aware of the discrepancy between my conceptions and their conceptions about teaching and learning, I consciously reviewed my tacit and explicit reactions to their responses, to try to check for instances where I could have been judgemental or where my reactions could have been hurtful. I believe that this proved useful because teachers regularly showed their willingness to discuss their teaching with me and at times even diverged to discuss openly some more personal issues that were on their minds. In general, I felt that I developed a relaxed relationship with each teacher, but could not develop a sense of group or team among all the teachers.

Another important aspect in this area is that I always made sure to ask the teacher to decide on the day and class that she would like me to observe or to video-tape and, at the initial stages, some teachers rescheduled at the last minute because they felt uncomfortable to receive a visitor in their classes. However, as our relationship developed teachers seemed more ready and less reluctant to invite me to their classes.

Another ethical issue that was constantly on my mind is related to my role as the researcher and how this role influenced my relationship with the teachers. I realise that being an “outsider” and a PhD student could have influenced the teachers’ perception of me and our relationship. However, starting from my strong belief in the constructivist approach to learning, I saw my role as one of providing space and support for the teachers to develop their self-awareness in relation to their beliefs about teaching and learning and to understand how these beliefs influence their teaching practices. Although, I might have perceived myself as a “change agent”, I was also convinced that change can only be a choice of the teachers themselves and that it is this kind of change that can be effective and sustainable. Accordingly, I was continuously aware of the need to keep the relationship between the teachers and myself as an equal one and always checking myself for behaviour that could be understood as patronising on the part of the teachers. My main aim was to facilitate the ongoing process of development and evolution and I tried hard to keep away from advising and providing solutions for problems discussed. Moreover, I constantly presented the teachers with explicit information on the decision-making process during the research process and asked for their opinions and suggestions which I tried to incorporate and which resulted in changes in my original plan for the research process; for example, it was the teachers in the theory-based reflection group who suggested that I make a presentation on the principles and procedures of cooperative learning and group work and their suggestion was planned for, scheduled and implemented within the research process.

The above discussion raises another important ethical issue in action research, that of “power”. Since it is the researcher, who is seen as holding the power because of his/her knowledge base and because of his/her control over the research agenda, participants may feel threatened or disempowered and this could be a major contradiction to the essence of critical research in general and action research in particular which aims mainly at empowering participants in order to effect change. Again, my self-criticism and the self-awareness were the main tools which helped me to keep a check on the issue of power all through the research process. I questioned myself regularly on whether I was exploiting the

teachers or whether I was thinking of them as “objects” and ignoring their needs. It is true that, as a PhD student, I had deadlines to meet and had goals to achieve, but this whole research was triggered by my belief that teachers have the most power in any process of educational change and that teachers are closest to the educational contexts that learning takes place in, so they have the most valuable information related to educational development. Therefore, although I was aware of the fact that I had access to theoretical knowledge, they had the practical knowledge that could shape and effect real change. These beliefs helped me to keep a check on my thoughts and behaviours in this area and helped us, the teachers and me, to develop a more egalitarian relationship.

5.17 Conclusion

In this chapter, I started by discussing the influence of ontological and epistemological assumptions on researchers’ choice of methodology; this was important to explain the thought process with its underpinning beliefs that influenced my choice of methodology; namely, action research. Then action research with its origins, history, characteristics, and diverse implementations was discussed, and this set the ground for exploring the match between what I looked for in a methodology and this approach to research. Then I described the setting, the participants and the procedure of the research and explained my position on first and second order action research. After outlining the data collection and the data analysis processes, I concluded with a discussion of issues related to trustworthiness and my ethical stance in this research. These processes yielded the findings and the conclusions which will be discussed in the next two chapters.

CHAPTER 6

RESULTS AND DISCUSSION

6.1 Introduction

This chapter reports on the issues that emerged during the phases of the study described in the previous chapter. The data collected have been grouped into three main themes which correspond to the initial research questions. Within each theme, findings will be presented in subcategories; this analysis will aid in explaining and understanding the findings of this study.

The following table presents the research questions, the emerging themes from the data collected and the subcategories of the themes:

Research Question	Emerging Themes	Subcategories of Themes
1- How do teachers understand and evaluate the changes made by the new curriculum in Lebanon?	Data related to the teachers as individual learners.	<ul style="list-style-type: none"> - Teachers' perceptions of the new curriculum. - Training workshops: benefits and limitations. - Teacher reflections in relation to the new curriculum: areas and levels of reflection. - Personal factors that impede reflection.
2-What are the factors in the Lebanese educational context that aid or hinder the process of reflection and eventually the process of conceptual change?	Data related to the social and professional contexts of the teachers as learners.	<ul style="list-style-type: none"> - The role of the inspector, the coordinator, the principle in teacher learning. - Opportunities for professional development. - Students' attributes and their perceived influence on teachers introducing change.
3- Would engaging teachers in activities that are said to encourage reflection help them: i) to better understand the changes introduced by the new curriculum, and ii) to develop their reflective thinking and self-evaluation skills?	Data related to the researcher as a facilitator of teacher reflection and teacher learning. (The researcher's conceptual change process)	<ul style="list-style-type: none"> - Using action research to help teachers develop their teaching practices. - Sources of motivation to continue with action research. - Systematically processing action research. - Accommodation of action research.

Table 6.1: Emerging Themes and their Subcategories

6.2 Teachers as Learners

Teachers in primary schools in Lebanon were introduced to the Lebanese Educational Reform Project through a series of workshops which were followed up by monthly visits from local authority inspectors of public schools and by weekly meetings with subject coordinators in private schools. Teachers were also provided with Teacher's Guide Manuals that supplemented the new text books introduced for each of the different school subjects. This section presents the impact of these sources of information about the new curriculum on the teachers' understanding and perception of the new curriculum, and then presents teachers' reflections on their implementation of the new curriculum including their self-evaluation: where they succeeded, where improvement is still possible and where they do not think change is possible. The section will conclude with a presentation of the factors that interfered with teachers' engagement with reflection.

6.2.1 Teachers' perceptions of the new curriculum: Teachers in general saw the new curriculum as a way to introduce more contemporary and more interesting topics for students. They also described the new curriculum in terms of new methods and techniques in teaching with no reference to the theories of learning that underpin these methods and techniques. The following are some quotations from the initial interviews held with the teachers where they describe the new curriculum; these reflect teachers' understanding of the new curriculum; they are divided under subheadings, each relates to an area that was described by the teachers as one of the features of the new curriculum:

Group work: When asked about the changes introduced by the new curriculum, teachers in general indicated that they need to introduce group work into their classroom activities; the following are some quotations related to this:

Rudayna a second grade English teacher explains: *"we are applying the new curriculum.. it is going on very well with the students...but the difference is that it takes a lot of time and not everything you can apply a hundred percent...I mean for example, if we wanted to do group work, let us say in reading, I get very tired, I divide the paragraphs among the groups... each group has to read one paragraph, then we have to*

coordinate... you have to tell the others what you read... it is very difficult” (Int-1/MP/19).

The same point is referred to by Amal, a second grade English teacher: *“it is mainly about group work... this is very difficult to apply in our classes because they (the students) behave as if they are playing and they make fun of it and they do not think... I am talking about the second grade and the second grade is very difficult to deal with...you have to teach them step by step and according to their level of thinking ... you are dealing with very young children; it took me till the end of the year till it (group work) worked with me ... it worked best in writing sentences ... to do fill in the blanks... these we can do in group work but in reading texts it did not work... not at all...for example in the vocabulary lesson, I write the vocab on the board and they work in groups, I assign a leader, and one writes and one reads... and so on ... they do some very nice work and every group writes a nice sentence and they read it to me, and each group has his turn; in this way it worked very well... in other things not so well... ” (Int-1/MP25)*

Safa, a primary civics teacher sees group work as a hindrance to autonomy and creativity: *“I feel that the new curriculum fosters dependency; so when the child is working in a group he might depend on his group mates and you will not be able to evaluate him; at the same time if a child is shy or withdrawn and sitting in a group, there might be another student who is more confident or controlling and this might make the child reluctant and more withdrawn and this might affect his personality negatively, but in the old curriculum the child was able to express him/herself whenever he wanted to in an individual way, and when he was asked to complete a task he was asked to do it individually and this way he could do something creative, and those who have no creativity are becoming dependent on others, so he sits with the group but the rest of the group does the task and he depends on them completely and so as an individual he has done nothing” (Int-1/MP22).*

Noura, a second grade English teacher questions her ability to apply group work in the classroom: *“I know we give them group work and other new activities but the students are not really benefiting from them because we do not do them in the right way...you know, when we put the little ones in groups they just copy from each other and they do not learn anything ...just copying all the time and I feel that they are not learning anything new and they get distracted easily...and I feel that the teacher can not sit with all the groups all the time” (Int-1/MP 23)*

The above are typical quotations of the way teachers described group work and they represent two aspects of teachers’ understanding of group work: first, they see group work as an end in itself, and second they do not seem to relate group work to the principles of cooperative learning which is one of the main theories of learning underpinning the new curriculum.

To start with, teachers explain their experience with group work in terms of what they did and not in what the students learnt, and in general, they indicate that group work was not successful. For example, teachers do not indicate that group work could ease psychological tension on the students since it reduces the stress caused by competition. Although, competition is sometimes regarded by some as a strong motivating reinforcement, this is only applicable to the very few students who are confident that they will 'win' at the end. The majority of the students will feel threatened by competition and this will lead to withdrawal from the learning process (Hopper, 1987). Teachers also do not refer to the way group work promotes student learning through explaining and discussing what they know with their group members (Johnson, Johnson, & Johnson Holubec, 1991), nor do they refer to the role of interaction and discussion in developing students' critical thinking skills (Johnson & Johnson, 1994); on the contrary, teachers see group work as a waste of time and a way to spend time off task (as mentioned by Safa and Amal).

Teachers also seemed not to understand that group work needs a set of preparations that are necessary for its success at improving student learning; for example, they do not refer to the need to structure positive interdependence by establishing mutual goals, but see group work as an opportunity for students to copy from each other (as stated by Noura) and none of the teachers mentioned the need to place students in heterogeneous groups, or the need to develop students' interpersonal and group skills (Johnson, Johnson, & Johnson Holubec, 1991). This reflects that teachers did not assimilate what cooperative learning is or what it entails and they seem to be applying "lethal mutations" of group work which might be more harmful to student learning than their former teaching practices (McLaughlin & Mitra, 2001).

Silent reading: A number of the teachers also explained that the new curriculum dictates that students have to read silently in class rather than orally.

Samira A, a first grade English teacher, expresses her discontent with the new curriculum "...look, we studied in the old curriculum and our language skills are much better than today's students, they used to emphasize reading in the old days, now they don't... in the new

curriculum there is no emphasis on reading and that is wrong...yes...how are they going to learn English language if they do not read in a loud voice and hear the words and the way they are to be pronounced”(Int-1/MP 28).

The same issue of reading was referred to by Nesreen, a third grade English teacher: “... *In the new curriculum, reading is always silent... for 5 minutes in the class... this does not work ...it cannot succeed this way. Students need to read aloud... at least a short passage of 3 or 4 lines, not more than that, and then you hear him/her reading and you can correct their reading.... If the student did not read his lesson this way he can not understand the lesson.... If he reads it silently he will not understand it... we are adults ...but when we were young we used to read aloud; we did not understand if we read silently... this way adults can comprehend but not the young ones ... no way, they can not comprehend this way (silently)... in my opinion they should read (aloud) the lesson for 15 minutes everyday” (Int-1/MP 32).*

One of the most interesting comments on reading was made by Samira B: “...*there is no class for reading this is what is wrong with the new curriculum” (Int-1/MP 29).*

Again these quotations reflect that teachers describe the new curriculum in terms of activities rather than the learning theories from which they were derived. They describe silent reading as an element of the curriculum, but do not refer to how silent reading could help students become independent readers or that it aids them to develop at their own rate, or that it could change students' attitude to reading (Fenwick, 1997). Teachers also do not recognize that asking students to read in turn from the same page leads to boredom and puts students in an awkward position where they labour through a few sentences and then sit down and most probably ignore the text for the rest of the session, or that “...the eye-voice span in oral reading tends to be very small, and if word –by-word reading persists it is likely to impede progress in silent reading” (Jenkinson, 1973, p. 56).

On the other hand, teachers seem to see learning to read as articulating words orally, and teaching to read as checking on the accuracy of word recognition and pronunciation. There is no mention of the possibility of developing critical thinking and meta-cognitive skills -such as self-questioning, or self-monitoring for comprehension and taking corrective action when needed, or identifying the main idea of the text being read (Baker & Brown, 1984) - which can be

approached through silent reading and which are highlighted by the new curriculum.

Dictation and Vocabulary: The following quotations refer to how teachers see changes in the new curriculum in teaching vocabulary and spelling. These were grouped together because they reflect the way the new curriculum tries to reduce emphasis on memorization and the way teachers perceive this.

Nesreen objects to not being allowed to give students passages to learn for dictation: "...*there is no dictation...how can there be no dictation...yes, dictation is not allowed (in the new curriculum). If you did not teach the child dictation ...if he/she was not given a passage to read and practice at home how can they learn how to write*" (Int-1/MP 32).

Samira B compares between how she is supposed to teach spelling and how she would prefer to teach: "*We give them words with missing letters and ask them to add the missing letters; this is good to see if they can recognize the sounds of the letters, or we give them a word with the letters scrambled and they have to rearrange them, but this is not enough they need to study a whole sentence with all the words, and that is what I do sometimes; I give them 4 or 5 sentences and ask them to study them at home and the next day I dictate the sentences to them and correct what they have written and give them grades*" (Int-1/MP 29).

Munifa also objects to this: "*Another problem is that in the teacher guide they never ask us to give the students dictation; the word dictation is not mentioned in our guide. At the same time, after a couple of lessons the students have an exercise in their work book that asks them to write a couple of lines about their friend, or a couple of lines about themselves. Now maybe the child can say something about themselves or about their friends but he/she cannot write it, so I ask them to say what they want to write and I write it on the board and they copy on their workbooks; they cannot write them because they have not memorized them, and because they have not taken these to study as dictation. So as you can see dictation is very important, if a student wants to write something like "I like to eat", he/she has to learn how to write "like", "read", "eat". So you see why dictation is very important and they say that dictation is not important*" (Int-1/MP 20).

Noura tries to explain the rationale behind not asking students to study complete sentences for dictation: "*they (the new curriculum) believe that spelling should not hinder the child from writing, so it does not matter if she/he can not spell; what is important is to write (fluency), but we still stress spelling and dictation, I am not sure whether the child should be encouraged to write even if he/she is not sure of the way the words are spelt*" (Int-1/ MP 23).

Amal describes her attempt with teaching spelling rather than dictation: *"I start by giving them words with missing letters, for example, I write "_all" and say "ball" and then I ask them to write the letter of the missing sound; this way I find out if they can identify the sounds of the letters. Then I give them the picture and they have to write the word for the picture, so I do not dictate dictation; last year I did not give dictation at all. I gave them a sheet of paper which has pictures on it and they write the words for the pictures"* (Int-1/ MP 25).

Rudayna also explains her methods: *"They first draw the pictures in their copy books and write the words and then when I need to enter grade in my marking book, I see if they have learnt the words; I give them a worksheet with the pictures and ask them to write the words. This I do later, I first start with missing letters, the first letter and the last letter"* (Int-1/MP19).

Bahia, a fourth grade English teacher, describes the new way to teach vocabulary: *"They say that we should not teach vocabulary...no, vocabulary is very important. How is the student going to use the new word in a sentence? How can he/she use it in writing? I feel that vocabulary is very important especially in the primary grades, at least till the fifth grade it is very important... it is important for writing sentences and to be able to write at the end... especially that (in the new curriculum) the lessons have a lot of new words and the students will not be able to remember them all... by the way, I teach them vocabulary, I choose the useful words and the words that I think they will use often and we work on those a lot; first I write them on the board with their meanings and then I read them aloud and explain them, and then I ask the students in turn to read what is written on the board. Then they copy them on their copybooks and study them at home... sometimes I spend a whole class doing vocabulary"* (Int-1/MP 24).

Similar objections are made in relation to not being able to ask students to memorize word meanings; Noura explains: *"I think there is something in the new curriculum that will not work with our students... students have to study vocabulary and the meanings; these need to be written on their copybooks and studied later at home. We were told that the exercises in the student workbooks are enough for the students to learn new words, but we did not really use the workbook last year; it has many activities and exercises in it, but we did not feel that they were relevant to the things we were studying... we did not rely on the workbook because we had our own worksheets which we compose"* (Int-1/MP23).

Taghreed helps the students to memorize the words in class: *"I write the new words on the board and I read each word three times and then I ask them to read. I choose some students to read... I assign every three together, so they know their turn and, of course, I need to use encouragement here; I give them smiling faces when they read the words correctly, and the competition is really important... it really works"* (Int-1/MP26).

Munifa tries to work around the new system, but she still feels that memorizing word meanings is important: *“Let us say the lesson is about the school ...I talk about the school in general then I write the new vocabulary on the board and I explain them; I might do some miming for the word; if they understand the vocabulary, then when we start reading the lesson they will understand it right away, but I still feel that they need to study the word meanings at home so that they will not forget them by the next lesson”* (Int-1/MP 20).

These quotations reflect teachers’ belief that memorization is important for learning, and reflect the failure of the training for the new curriculum in changing this belief. As school students the teachers were taught in systems that emphasised memorization and before they can see that there are other, perhaps more interesting and efficient, ways to learn, they will not be able to give up this conviction (Lieberman, 1995). Even though some try to implement the new techniques for teaching spelling and vocabulary, they do not appreciate that students can learn by using cognitive skills like analysis or synthesis, and they resort to memorization at the end, like giving the students pictures and asking them to write the corresponding words from memory.

The teachers’ comments do not indicate classroom practices that aim at actively teaching spelling, but expect children to learn through drilling. Moreover, there is no reference to using rhyming patterns or visual patterns to develop students’ spelling through analogy making, or to the different kinds of knowledge that students need to integrate when trying to spell, such as phonetic knowledge, and structural and semantic knowledge (O’Sullivan, 2000).

The case is similar to the way teachers deal with vocabulary. Although some teachers try to use miming or bring pictures to the classroom to help the students understand the meanings of the words, there is no indication of using varied exercises to help the students get “acquainted” with the new words in different contexts, or of engaging the students with a deep processing of the word to ensure longer retention (Stahl & Fairbanks, 1986); again, teachers expect that learning will take place through repeating the words with their meanings until they are memorized.

An interesting point related to assessment is made by Rudayna in the above quotation about spelling; she states that when she needs to enter a grade in her marking book she asks students to do a spelling/dictation exercise. This could imply that this approach is easy to grade and would provide the necessary input; this raises the question of whether teachers prefer assessing students on memorized knowledge because it is easier and more straight forward than the other approaches that need more effort from the teacher.

Grammar Instruction: Teachers also expressed their discontent with the lack of explicit grammar instruction in the new curriculum which they believed is very important for students learning a second language.

Rudayna explains that in the new curriculum *"there is no grammar ... how can a student write if he does not know the basic things in grammar, like this is the way we write this sentence. They should at least know the helping verb; when to add "s" to the verb ... subject verb agreement... this is a singular verb it takes "s" and this is a plural verb it does not .. this is a pronoun...you need to focus on the pronouns and it (the new curriculum) does not... teachers of the higher grades are finding difficulties with their students because they do not know grammatical rules...for example they can not use pronouns properly... they do not know how to... I emphasize grammar to be honest... I think it is very important; I photocopy grammar exercises from the old books and we do them together in the classroom... I find this very important"* (Int-1/MP 19).

Munifa says something very similar: *"Now, we also have the problem of grammar ... you feel that there are no grammar lessons in the new curriculum... there is hardly any grammar... for example, there is one lesson with one exercise for verb to be.... The "am" "are" and "is" are all in the same exercise all four in one exercise; there is no way that a first grader is going to learn all together. The children have been exposed to the forms of the verb, but when in came to application all four forms were put together; also, there is the problem of the verb, the noun and the adverb, I really do not know how to make the students understand these... I do not know how to teach them that this is a verb and this is a noun etc."* (Int-1/ MP 20).

Bahia has a similar complaint: *"In the teachers' guide they state that we have to teach them the difference between a verb and a noun. This I find difficult to teach, but I did not find difficulty in teaching them verb to be. They got it quickly and I stressed on the difference between singular and plural, that we add am to I and are to you and they etc. and then we have*

to teach pronouns; you can not teach verb to be with out pronouns... so you as a teacher have to deduce from each lesson what grammar rules and concepts to teach” (Int-1/MP 24).

These quotations reflect two aspects; first, that teachers still feel that grammar needs to be taught as a lesson on its own, and second, that they are finding difficulty in teaching certain grammatical concepts. In relation to the former, teachers do not seem to comprehend the new curriculum’s approach to the integrated language approach where it is assumed that general language competencies are acquired through the integrated use of language rather than through learning separate, finite skills, and drilling through repetitive grammar exercises. Moreover, they seem to regard grammar instruction as mechanical, through the use of structured exercises without personal or cognitive involvement which could ensure better transfer of learning and longer retention by the student (Frank & Rinvolutri, 1991).

As for the latter aspect, teachers seem to lack the knowledge and skills needed to teach grammatical concepts to students. They find it difficult to teach students concepts such as the noun or the verb; this again reflects the mechanical approach to teaching which would not allow for a deep understanding of abstract grammatical understanding. This is related to next section in this category of findings.

Positive aspects of the new curriculum: Although the teachers did not demonstrate a deep understanding of the theories of learning that the new curriculum was introducing to the educational system, when asked whether there is anything positive in the new curriculum, they indicated that it was superior to the old curriculum in certain areas; the following quotations reflect what the teachers saw as positive in the new curriculum.

Taghreed, the science teacher said: *“yes, of course there are (positive things in the new curriculum)... it allows the child to express what he knows ...like in my subject (science) the child can relate what he learns with things around him/her, she/he can relate what he learns with his surroundings and this makes him/her learn the concepts better ... and sometimes when I introduce a concept in grade two the students say “ we*

know this ... we learnt this last year” they sometimes remember what we taught them the year before because they experienced it with their own hands and they worked on the concept more than once and from different approaches... ” (Int-1/MP 26)

And in the second interview she adds *“there is more movement... more activity...the subject is not as rigid as it used to be, they (the students) have more chance to contribute to the lesson, if not in class they can bring things from home... they can bring pictures or drawings about their lesson, and then we hang these on the wall... there are even some experiments now, in grade 3 there are experiments that we do in class that help them to understand the concepts... they have a lesson on the environment and pollution. In this lesson, they work on explaining the lesson ... they enjoy it a lot... especially this lesson because they have the same theme in their Arabic curriculum and even the same topic in their English book, so they are doing the same theme in three subjects so the children really learn well”(A-Observ./MP 38)*

Safa the civics teacher also saw some positive aspects of the new curriculum: *“They discuss their ideas and they deduce the answer themselves... this has actually happened ... there have been times when I taught the lessons and they arrived at the conclusions. Like yesterday, our lesson was about the family and the role of the family; this was a very important lesson for the fourth grade; they deduced how important is the role of the family and that our parents have a very important role and they have lots of responsibilities, they came up with most of the ideas about what parents do and what their role is; I did not tell them anything, I kept asking them until they told me what the role of the family and the parents is. I did not tell them anything; they came up with the answers” (Int-1/ MP 22).*

Bahia had a similar view: *“Practically speaking in the old way the teacher would lecture and tell the students things and all that they have to do is understand what I am saying, but now I need to find out from them what have they understood and what have they learnt from me all through dialogue” (Int-1/MP 24).*

Munifa is one of the rare teachers who expressed explicitly, and before being prompted by a question, her preference to the new curriculum, and she is the only teacher who referred to the teachers’ guide as a helpful resource: *“When you prepare all the teaching aids suggested in the teachers’ guide you will find results; if one day I forget my “bag” at home and give the lesson with out it, the next day I definitely need to repeat the lesson... only with these teaching aids they will learn”, she later adds: “There was no written or oral expression (in the old curriculum), but now there is, and the child is getting new ideas, and there are nice topics that the child enjoys; this was not the case in the old curriculum. Although the book was smaller and we had 20 lessons all year and we used to finish in May, each lesson was three lines. Now we have 150 lessons and each lesson is two or three pages long and with*

colourful pictures. The material is richer in topics and activities and even the workbook is different... Frankly, I am not finding any problems and I am quite comfortable with it especially now that I have been teaching it for the fifth year.” (Int-1/MP 20).

Samira B also agrees: *“Yes, for sure there are. In the old curriculum the student did not do anything, the teacher taught and the student had to go home and study what the teacher taught, and the next day the student came and recited what he learnt at home. Now it is very different the student shares in the lesson explanation and I provide cards and materials and they have to share in the explanation they even help their friends. In the old curriculum I did not do any of this and the student did nothing in class; they only listened. What we used to do was write the lesson on the board with the difficult words on the side and then we would read the lesson and they would read after us. Now it very different”* (Int-1/MP 29).

Noura states that: *“The positive aspect of the new curriculum is that it is quite comprehensive and the topics are related to child’s environment, i.e. the topics are related to the child’s world, his friends, his family, his home; the things that matter to the child are all addressed. It is much better than the old curriculum because it is comprehensive. Moreover, there are songs in the lessons; the child is usually waiting for the lesson that has a song and they love to learn it; at the same time each song has the new vocabulary that will be introduced in the next lesson, so this way the child learns the song and is well prepared for the next lesson so the lesson becomes much easier; this is one of its positive aspects”* (Int-1/MP 23).

Amal expresses that the new curriculum brings life to the classroom: *“Now I feel that there is action in the class... the child gets up and moves and they interact with me while in the old curriculum I was the only one speaking all the time... all that the student did was to memorize the lesson and come and recite it the next day... for example in the new curriculum we have different characters in the lesson and each child chooses a character and they role play...and then after a couple of days they memorize their parts and do their parts without reading from the book”*(Int-1/MP 25).

Although the teachers started by complaining about the new curriculum and by highlighting what they think is ineffective in its approach, when asked explicitly if there is nothing positive in the new curriculum and if they would prefer to go back to teaching in the old curriculum, they seemed to agree on a few points: the new curriculum is more appealing to the students because it addresses aspects of their daily life, it is varied and rich with activities and exercises that the children enjoy, it demands more participation from the students and this helps them to learn better and interact more, and although there are difficulties in teaching the

new curriculum, it is not a good idea to go back to the old curriculum. It is worth noting here that, although none of the teachers directly referred to the new curriculum as “child-centred”, their responses included the characteristics of a child-centred approach; it is clear that they seem to be having difficulties in approaching their teaching in this way, but their reactions imply some appreciation for the approach.

The extensiveness of the new curriculum: Some of the teachers expressed their concern about the extensiveness of the material to be covered. The majority of the teachers stated that they will never be able to cover all that is expected of them to cover in an academic year.

After observing her class, Taghreed and I sat to discuss the lesson and she explained that she felt rushed for time: *“I feel that there is more work for the teacher. I feel sometimes that the 50 minute session is not enough because the activities that we do in class now need a lot of time. Even if I feel that an activity needs more than 20 minutes I have to tell them to stop after 20 minutes... then they feel they are under pressure and they might not really learn what is intended for them to learn”* (A-Observ./MP38).

After observing Munifa’s class, I asked her about a couple of students that were not participating and she expressed that there are 3 to 4 student in the first grade that still do not know the any of the letters and that she: *“... really can not waste the first two or three months in the year to teach the letters. I have a very long curriculum to finish, so if I spend two months on teaching letters I will not be able to finish most of the curriculum”* (A-Observ./MP 41).

Amal had a similar concern: *“I really can not finish it (the material in the book)...no way...there is no way. If you give every day a new lesson, it will not finish. I counted the lessons and I counted the school days in the academic year, and there are more lessons than days”* (A-observ./MP 45).

So does Nesreen: *“I would love to finish the whole book at least one time but it is not possible...the book has too many lessons”* (Int-1/ MP 32).

Mona does not have many complaints about the new system, and after visiting her class for 50 minutes she was telling me that she enjoys teaching in the new books, but she also feels rushed for time: *“What bothers me is how long it is. For example, we are now studying about the house (home); there are 5 lessons about the house... that is too much...five lessons need two weeks. I am nearly never absent and I give one lesson every day, and I only get to finish 16 themes from the 30, because each theme has five lessons; you can not give two lessons a day especially in the first grade. Even this way some parents complain that I*

am moving too fast... and all this rush and I get to theme 16 and I even skip a few because I feel they are repeated” (A-Observ./MP 39).

Bahia also seems to feel pressured: *“I am very rushed for time and I have to keep working according to my schedule...the program is very big and not one year was I able to complete it. I tried my best but I couldn't, and she(inspector) tells me that I should try and finish it... but I can't ...I told her it is impossible...it is impossible to finish the program...very difficult...so that is why at the end I neglect things and neglect students who are finding difficulties to keep up” (A-Observ./MP 43).*

A possible conclusion from these reactions would be that teachers saw that they have to teach a certain number of lessons rather than a set of skills or learning objectives. The richness of the new curriculum could be a way to provide the teacher with alternatives, rather than to overwhelm her with a large number of lessons to cover. Teachers who had a more open relationship with their supervisors did not seem to stress this issue; in general, they seemed to feel that there is a way around it, through working with selected topics and activities. On the other hand, it is the teachers who expressed that they were concerned about the evaluation that they will get from the supervisor (in the private school) or from the inspector (in the public schools) who felt overwhelmed by the extensiveness of the material to be covered. This teacher-supervisor relationship will be discussed further in a later section.

6.2.2 Training workshops: Benefits and limitations: The majority of the teachers felt that the workshops that they had attended in relation to the new curriculum were not sufficient, but some expressed that they do not feel that going to other workshops will help them to apply the new curriculum and others felt that it is important to attend more workshops.

According to Munifa, the workshsops were not very helpful: *“Yes, we have been to a couple of workshops, two summers ago, but they were sort of a waste of time...when I started teaching the new curriculum, I felt for the first few months that I was completely lost, then bit by bit I started to figure things out; now the inspector visits my class and gives me very few comments; when we first started he had too many remarks to make” (A-Observ./MP 41).*

Nesreen feels that what they had attended was not enough: *"We had some general workshops for the whole school about teaching in general but there was nothing in relation to the subject matter"* (A-Observ./MP 40).

Bahia has been to some workshops which were run by the American embassy and her impression was: *"Sometimes we go to workshops and find lots of new ideas that we really like, but we come back to class we find it very difficult to apply due to the book and what is in the book"* (A-Observ./MP 42).

Taghreed seems to get the idea of the student-centred approach, but still finds it difficult to apply: *"I learnt that the teacher should have a minimal role in class and the child should be in control and should do most of the work on his own...but when I tried to apply what they told us to do I found out that this will not work in our school; what they are proposing will be fantastic if the class is 11 or 12 students; our classes have sometimes up to 35 students. I visited some classes in a school where there are only 11 or 12 students in the class...there, it is very easy to work with the students in the way that they are proposing, but here we have a problem with the number of students in the class... this is really annoying, the child will not be given all the attention that he/she needs"* (A-Observ. / MP 38).

Rudayna feels that there is no need for any more training and that she is applying the new curriculum as far as it can be applied in her school: *"No...I really do not think I need any more workshops, I really feel that I have understood the new curriculum and I do not need any more workshops"* (A-Obsev. /MP 44).

Safa feels that there is still a lot that she needs to learn: *"We are not going to workshops related to the new curriculum; last year the administration sent us an evaluation sheet and we all asked for workshops, even if it is tiring but we will benefit a lot from them"* (Int-1 /MP 22).

Noura specifies what she wants to learn about: *"we need workshops on how is the new curriculum administered ... what are the approaches that could be used to teach this new curriculum... we do not really mind... we really want to apply it and we try to apply it"* (A-Obsev. /MP 47).

In general, the teachers felt that there is still much room for improvement in implementing the new curriculum, except for Munifa and Rudayna who feel that they are applying the new curriculum in the best way possible. This raises the question of whether they have really understood the reform and were able to "figure out" how to implement it (as Munifa states in the above quotation) through a process of individual reflection, or whether they are implementing

what they saw as change. While visiting these teachers' classrooms, it was evident that they adopt a teacher-centred approach with no evidence of cooperative learning or hands-on activities. After the session, we sat together to discuss the lesson, such as what they were doing and why they were doing it; the aim of this discussion was to help the teachers make explicit the implicit theories or knowledge that were guiding their classroom practices, but they seemed reluctant to discuss their classes and preferred to discuss the problems that they are facing in implementing the new curriculum, such as the inadequacy of visual aids and the inability of their students to learn except through the traditional methods. A possible explanation for this could be that the teachers are exhibiting what Argyris and Schon (1974) describe as defence mechanisms so as to avoid the difficult task of change; another explanation could be that they are experiencing feelings of doubt and anxiety due to an imbalance between the way they see themselves as teachers, their self-image, and the way they define good teaching, their task perception (Kelchtermans, 2005); again this could lead to avoiding facing the difficulties incurred in change.

The rest of the teachers expressed that they were impressed by the new ideas and the new approach, but they felt that they could not apply what they had learnt in their classes. This could be explained by the views of the teacher educators who believe that piecemeal training is not enough to help teachers engage in real change in their classroom practices (Hargreaves, 1989; Hargreaves, 2000; McLaughlin, 1997; McLaughlin & Mitra, 2001; Prawat, 1992). In general, the teachers involved in this study had attended 3 to 4 workshops about the new curriculum; they were presented with the general approach, and at best given an example or two on how to implement the new curriculum in the classroom, but due to the limited time for explanations and discussions, teachers did not have the opportunity to assimilate the new ideas, or to go through a process of "schematization" that would lead to restructuring their Gestalts that govern their classroom behaviours as Korthagen and Lagerwerf (1996) explain. The result was that the teachers felt at loss when confronted with the changes in their real life teaching contexts; this issue is expressed by Amal, who seemed quite frustrated with the trainers:

"The people who give us these workshops tell us teach them this way and teach them that way ... In the last workshop I attended, I suggested that the trainer come to our classes and give a lesson in the way she is describing ... make a demonstration in a real class and then we will see how it works, but they never do" (A-Observ. / MP 45).

What is presented in this quotation was also confirmed by two other teachers who felt that neither the trainers nor the inspectors really knew what the reform is about.

Samira B feels that the inspector's feedback is confusing her rather than help her: *"I sometimes feel that the inspector is giving me mixed messages; he always asks me to move faster and to try to cover all the lessons assigned for the year; then, on a different occasion, he says that I am not using enough activities that help students to be more involved and to participate more in class. Well, you can't have both; if I want to take my time in class and allow the students to participate then this will be at the expense of finishing the lesson; I wish they would decide what they want and then come to our classes"* (D-Video/ MP 53).

Noura feels that the subject coordinators themselves have not grasped the underpinning principles of the new curriculum: *"I sometimes feel that she (the coordinator) is mixed up; she seems convinced that the new curriculum is better for the students but at the same time she asks us to give the students dictation and grammar exercises from the old books... Maybe she feels that this way she can fill the gaps in the new system"* (A-Observ./ MP 47).

This brings into question the effectiveness of the three-day workshops in which the trainers-of-trainers trained teacher-trainers as part of the educational reform implementation plan. Just as the teachers need time to assimilate the changes and the opportunity to experiment with them and reflect on them, the trainers or the inspectors need time to move from the theoretical to the practical through a similar process. Otherwise, the result will be confusion and frustration, as is expressed in the above quotations.

6.2.3 Teacher reflection: Teacher reflection could be divided into three main sections, each corresponding to a set of phases in the study. The first section describes and analyzes reflections that the teachers expressed during phases 1 and 2; i.e. during the initial interviews and during the interviews after the class observations. The second section deals with teachers' reflections in phases 3 and

4; i.e. during the teacher meeting, and during the discussions that took place while the teachers were watching the video recordings of their classes. The third section is related to phases 5 and 6 of the study; i.e. teachers' reflections in the journals that they wrote after attending the cooperative learning session and implementing cooperative learning in their classrooms, and during the feedback sessions that followed peer observations. This division is based on the finding that teachers' reflections were dominated by one type or level of reflection in each set of phase. As the study proceeded and as the teachers became involved with further discussions of their work and their classes, teachers' reflections became more in depth and higher levels of reflection were identified.

Reflection in phases 1 and 2: During the first two phases of the study the teachers mainly expressed their views about the new curriculum in definitive statements with little reference to the complexity of the changes introduced by the educational reform. Teachers typically stated what was "bad" and what was "good" in the new curriculum without focusing on the different aspects of introducing change in their classrooms; moreover, in general they either blamed the educational authorities (in the form of insufficient support from supervisors or in the form of lack of resources) or they blamed the books in the form of topics and length of lessons, for the lack of success in implementing changes in the classes. The following are examples of this level of reflection:

Munifa was complaining that there are some topics in the book that the students do not enjoy learning and that the inspector sometimes insists that she teaches them in her classes: *"I do not really listen to what the inspector says; I do whatever I find useful with my students... the first year I gave a lesson which I skip now; it is about celebrations, so later I asked the 2nd grade teacher if she has the same theme in her book, she said she did, but she did not find it necessary to teach to the students... the lesson does not have any grammar in it, so the students will not be harmed if we did not give the lesson and I agreed with her, so we both skip it now... the child only cares about the Birthday, so we only give the lesson about the birthday... what do they need to know about wedding anniversaries? Children in first grade are not interested in wedding anniversaries, so why should we waste time and teach it"* (A-Observ./MP 41).

After observing her class Rudayna explained that if she had more time she would have prepared some teaching aids for the lesson in the form of

pictures or flash cards; she states that the best way to help teachers implement the changes is to be provided with help in preparing teaching material: *"I think the most important thing is to have someone that would support us as teachers, so if a lesson needs pictures or songs or some other form of teaching aids, this person would help by preparing these visual and teaching aids for us to use in the classroom"* (A-Observ./ MP 44).

A similar comment was made by Samira B: *"I suggested that we have a period a week for listening skill, but the new book does not have a cassette for listening exercises; all the cassettes are songs... if the school will provide us with material for listening we will be able to integrate listening in the curriculum; then we will not present the lesson through the pictures only, the students can listen and look at the pictures; that would be a way to introduce the lesson"* (D-Video/MP 53).

While watching the video recording of her reading class where the students were struggling with reading the lesson, Noura expressed that some lessons in the new books introduced too many new words and this was an obstacle for the students: *"I do not think it is possible for a first grader to learn 15 new words all together...we need to teach the meanings of the new words before we start reading, but I can't always do that because I have to teach a new lesson everyday...I sometimes count the number of the new words in the new lesson to see whether I can teach all of them together or not. If there are too many, I repeat each word as many times as the time permits"* (D-Video/ MP 50).

Safa's main complaint was that some lessons in the civics books were beyond the students' cognitive level: *"In the first grade the topics are too difficult for them to grasp; for example, we have lessons titled "my personality", or " my identity"; they find these concepts difficult to understand at their age, even their parents complain about it; in the past two years I taught these lessons and I found it very difficult to make the children grasp the concept of "personality" or " identity" and maybe their parents had never introduced them to such topics. The good thing is that this year I am not teaching grade one, only grades 2, 3 and 4"* (D-Video./ MP 54).

Taghreed has a similar complaint in relation to the science books: *"I feel that there are topics in the fourth and third grade that can be discussed in the first grade. Like there is a lesson on nutrition and this could very well be given to the first grade It is about sources of nutrition and that there are two sources of nutrition "from animals" and "from plants" and we need to eat from both; this could be very useful for first graders more than 3rd graders. The child will learn that soft drinks and potato chips are quite harmful and this could be very useful for children at this age then they will start to eat well at an early age, better than waiting till the fourth grade when he/she has acquired all the bad eating habits"* (D-Video/ MP 51).

And Bahia has a similar complaint about the English books: *“The way they organize the themes and the lessons is not really very practical... like the lesson about the school is at the end of the book and it is a very big lesson and too difficult to start with at the beginning of the year... although it is a very useful lesson to be given at the beginning of the year because it describes the classroom, what we do, and what we have in the classroom... we can not give this lesson because it has advanced vocabulary which the students have not learnt yet. Even the themes are not really related to what is going on in the child’s life and if a new word is introduced in one lesson it is not repeated in the following lessons and this way the students forget the vocabulary they learn. There are books in the market where the words are accumulated from one lesson to the next... so sometimes I write worksheets for the students reusing the words they have previously learnt, to insure that they keep remembering them...but this is very tiring ...last year by the end of the first semester I had already written about 30 worksheets; that is too much”* (A-Observ./MP 42).

These examples of teacher reflection could be labelled as routine reflection, since they are guided by what Dewey termed as “routine action”. Both teachers’ actions and reflections seem to be directed by habit, external authority and circumstances (Zeichner & Liston, 1991). Teachers seemed to present their problems in ways that implied lack of responsibility; the problem was described in terms of what authority dictates, and as a result, the teachers did not feel that they have a role in finding solutions for these problems. Moreover, the above examples of teachers’ thoughts cannot be categorized as “technical” reflection, since the teachers did not consider their teaching practises nor their efficiency and effectiveness (Van Manen, 1977); teachers were mainly describing what they thought were problems, but they did not suggest ways that they could tackle these problems; the suggested solutions were presented in the form of what others (the educational authorities, the school administration, the supervisor, the parents) could do, rather than in the form of what the teacher could do to solve the problem.

Reflection in phases 3 and 4: During the meeting that was held in phase 3 of the study, teachers were first reluctant to share their thoughts, but since some of them had been visited on that day by the local authorities’ inspector, these teachers felt the need to talk about what had happened during their interactions with the inspector, and a discussion about the teachers’ independence in choosing

classroom practices was opened up; eventually most of the teachers shared in the discussion.

Munifa expressed her dissatisfaction with the inspector's feedback: *"In my opinion let the teacher teach the way she sees most fit... if she has self confidence and confidence in her work, then let her teach in her own way and then see (evaluate)... I mean if she is teaching in her own way and the class ends up learning well then let her be and do not keep saying to her do things this way, do things that way... nothing should be imposed on the teacher. Once something is imposed on the teacher and she knows that this will not work in her class then the teacher feels confused and this way she confuses her students."*

Rudayna agreed with her colleague: *"Yes, when I teach a class for the first time, I take into consideration the average of the class and the mentality of the students, and then I see what is the way to get the information to them... it does not matter what method I use with them as long as it works... if they get what I am trying to teach them then I have succeeded, but if I am told to use this way or that way and I try it and it does not work and they do not learn then I would have not succeeded."*

Samira B. added: *"I am neither restricted by the new method nor by the old method... I am teaching the way I see most suitable to help the students grasp the material and I find this very successful...I might integrate both methods... I have been teaching for a long time... I started teaching when I was 17 years old...so I think I know best how to teach my students."*

Amal elaborated further: *"In my opinion a successful teacher has her own style... if she tries a method and the students grasp the material then that is fine...if it does not work then she tries another way and another method... she can use any method she chooses as long as she gets the material in the students heads (!)... for example, if I am teaching a word and the students understand it then that is it... if I try the newest method and it does not work then so what, it did not succeed ...whether the way is old or new...I do not care ...what I care about is that I should pass the information to my students in a simple way."*

Mona gave an example on what her colleagues were saying: *"I think the teacher's main goal is to get her students' attention; even the clever ones need to become engaged with what is going on in the classroom or else they might fall asleep. They (the supervisor and principle) always tell me that my voice is very high and that I should lower my voice. I know grade 2 students better than they do; if my voice is not high they will fall asleep, especially in the afternoon ... like in reading, if your voice is monotonous the students will fall asleep."*

Fatima felt that the supervisor is also interfering in her work in a way that was not helping the students: *"She (the supervisor) always asks me if they have copied the answers on their copybooks. I feel that we should spend more time teaching them how to answer questions and how to understand a new passage rather than waste our time in the class on copying the answers from the board onto their copybooks... I try to get them new passages to read from time to time; I do not really depend on the text book...I feel it limits their (the students') learning."*

This discussion opened up two other topics: overloading students with homework and the teachers' role according to the new curriculum.

Samira A. gave another example of her encounter with the subject coordinator: *"She keeps telling me that we have to give them homework...everyday homework. You know we give too much and the kids have a lot to study at home; sometimes they study for two hours each day and sometimes they study during the weekend, so they come to class on Monday full of energy and hyperactive. The other day I asked the parents of one of my very active students to take him out during the weekend. These kids are locked up in school all week and then locked up at home during the weekend... They have so much to study, not just for English but also for all the subjects: science, Math in Arabic, Math in English, civics...it is really a lot."*

Bahia also felt that the text book was not very useful: *"I also feel that the book does not help; we have to put a lot of effort in class and the students also have to study hard at home. They have to study for every subject everyday. I feel that we are overloading them sometimes."*

After these comments and similar ones, I felt that the teachers were trying to frame a problem, but they were not able to identify their role in helping to find a solution for the problem. Accordingly, in an effort to try to focus on the teacher rather than all the other factors that were being related, such as the supervisor's discouraging remarks, the books, and the workload, I asked the teachers' what they thought the teacher's role was in this new curriculum. This did not prove successful in bringing the teachers into the process of finding solutions, but it opened up a new avenue for deeper discussion where teachers' descriptions of their roles showed higher levels of reflection. The following are some examples of what the teachers said:

According to Mona, *"The teacher teaches, guides, and cares. Since the teacher accompanies the student from the beginning of the year, sometimes by the end of the year the teacher knows the student better than the parents. This is why sometimes you do not wait for the test*

results to know how much your students have learnt. A teacher' could tell from the expression on their faces whether they are learning or not."

Safa saw that the teacher should play a role in developing the students' social skills: *"May be the teacher in the new curriculum has the role to open new horizons for the students. The lessons include ethical issues; they do not only teach children to read and write. From every lesson the student learns a moral: how to deal with his friends, how to celebrate our friend's birthday, how to behave in schools and how to follow the rules, how to respect the teacher, how to respect our parents, how to deal with our brothers and sisters; the topics are around these themes and I like to focus on this aspect of the lessons, i.e. the social skills more than reading and writing. I really care that the child learns how to behave with his parents, even if they are not well educated and they do not know how to deal this him, he learns how he must deal with them. So I try to tell them that we are educated people, so we need to behave like educated people; even if your father says a bad word at home we do not need to repeat that and we should always be well behaved and know how to talk to our parents, we should always be polite. I really like to focus on behaviour, it should not all be: go study and come recite. This is the age where the child learns how to be polite, if he is taught well he will be polite all his life"*

Taghreed was trying to explain the role of the teacher as a facilitator: *"Practically speaking in the old way the teacher would lecture and tell the students things and all that they have to do is understand what she is saying, but now I need to find out from them what they have understood what they have learnt from me. This can be done through dialogue, and now the child needs to see and touch and experience in order to learn, or else he will forget everything the next day, it is very important that they see and touch."*

Hiba stressed the need to know the students: *"I feel that the teacher's role starts by being able to know the level of her students and to know how to pass a certain concept or piece of information to them... of coarse not through one method only... the teacher should use different approaches; for example, in the first grade the teacher can not stand in front of the class and teach the lesson; she needs to go around the class and interact with them in small groups or individually. This is important because she can see who is learning and who is not paying attention; I feel that the student who pays attention to the teacher will not find it difficult to learn and will not find it difficult to study at home."*

According to Zeichner and Liston (1991) in practical reflection "...every action is seen as linked to particular value commitments, and the actor considers the worth of competing educational ends as well as how well the particular learning goals that he or she is working toward are achieved by the students."(p. 167).

Therefore, practical reflection examines the goals and the means and questions

what is being taught and what is being learnt by the students. The above quotations include some practical reflection which is considered higher than routine reflection. Teachers seem to be thinking about what they are teaching their students and how this is influencing their students' learning. Teachers also seem to be committed to teaching and educating their students; they reflect on their roles as to care for and to guide the students and some feel that it is sometimes more important to teach students skills that will develop their social skills than just teaching them to read and write. Moreover, the teachers express the need to know their students; this is regarded as important to help them learn in the best way possible.

Similar issues were brought up, in phase 4 of the study while the teachers were watching the video recordings of their classes. Although, during the first few minutes of watching the video recording, the teachers were either silent or engaged in "cosmetic" reflections such as:

"I hate my voice... Is this how I sound in real life?" (D-Video/MP 56).

"My handwriting (on the board) looks awful!" (D-Video/MP 57).

"I really need to go on a diet." (D-Video/MP 50).

As they watched further, other levels of reflection emerged; there were incidents of technical reflection, where the teachers were examining their teaching practices:

"We were making too much noise; I hope we did not disturb the other classes" (D-Video/MP 56).

"I think I could have used some kind of group activity here; then I would have been able to cover all the material that I had originally planned to cover during this session" (D-Video/MP 51).

"Look at 'x'; I didn't notice that he was playing with his pencil case. I think next time I should seat him in the front; that way I can keep an eye on him" (D-Video/MP 58).

And there were incidents of practical reflection where teachers were questioning the effectiveness of their practices on student learning:

“As you see, sometimes they draw the concept and sometimes they bring things to the class... you see, when the child looks for something and finds it and brings it to class then he will not forget it ... he will remember it for a longer period of time” (D-Video/MP 54).

“I do not think they understood this point, may be I should get them some visual aids next time. That might bring the idea closer to them” (D-Video/MP 51).

“In my opinion and according to the level I teach, I think the teacher should use simple language with her students, this will make the learning process much smoother. We should not use difficult terms; I do not mean that you have to go down to their level, but I mean you need to use terms that are close to them...this will help them to stay with you during the class”(D-Video/MP 52).

“I really think we should have more activities in the class and outside the class. We used to celebrate the students’ birthdays and of coarse it became chaotic; I personally do not have a problem with noise, if the students are doing something that they enjoy and they are learning at the same time then noise should not be a problem” (D-Video/MP 50).

Reflection in phases 5 and 6: As discussed under procedures in the methodology chapter, the aim of this study evolved from a main focus on developing teachers’ classroom practices to a focus on developing teachers’ thinking skills and reflective abilities. This evolution was informed by the initial analysis of the findings of the earlier phases. The development of these prerequisite skills seemed necessary for teachers if they are to engage in a process of action research which involves: identifying areas that need improvement, planning for improvement, implementing improvement and evaluating what has been implemented. In the last two phases, teachers were divided into two groups: the cooperative learning group and the peer observation group.

Teachers in the cooperative learning group had expressed their need to learn more about cooperative learning and its principles. After a half day meeting, in which I presented examples of cooperative learning activities and the teachers deduced the principles underpinning these activities, the teachers planned to implement group work in their classes and wrote reflective journals on these activities. Although the journals included mainly detailed descriptions of what they did in class and how they did it, they also included statements that showed

higher levels of reflection than in the previous phases. The following are examples of teacher reflections in this group:

Bahia wrote that she enjoyed the activity just as much as the students' did: *"Although the first time it took a lot of effort to explain the group work activity to the students, it became easier the second and the third time, and I actually enjoyed it the fourth time. Things were moving smoothly, everyone was on task and they seemed to be learning as well as enjoying themselves... It was the first time that I feel that everyone understood the lesson. This made me feel great!"* Later in the journal she writes: *"I think the most important lesson they have learnt from group work is to accept each other and support each other. I had divided them into heterogeneous groups, so at the beginning the clever (underlined in the journal) ones complained because they thought that the less clever ones will make their group lose. However, eventually, they learnt that they will have to make sure that every member in the group understood the lesson well; watching them explain to each other enthusiastically was a real pleasure"* (WR/ 1).

Bahia's reflections could be categorized as practical reflection. In her writing she examined the means (group work) and the goal (understanding the lesson, learning to help each other, learning enthusiastically). There might also be a hint of critical reflection in her journal as she implicitly refers to the ethical issue of learning to care for others and to help others in society.

Samira B did not feel that group work was as effective in her classes, but she stated in her journal that: *"The good thing about this activity is that everyone participated; even the students who usually get lower grades and are reluctant to raise their hands in class, were trying to show what they have learnt and they seemed satisfied with what the group achieved... It was mainly useful to raise the moral of the less achieving students; they felt more confident... maybe their friends were better at teaching than me!"* (WR/ 2).

Even though Samira was not satisfied with group work, she engaged in reflective thinking at the practical level. She was considering the low achievers and how they felt and she even referred to the role of self-esteem in motivating students to participate.

Amal reflected a high level of enthusiasm in her journal: *"At the beginning, they gave me a hard time because each wanted to sit with his/her friends, but when they were assigned their tasks, they became really engrossed in their work; I stepped back and thought I was so proud*

of them.... I was really happy to see them work so enthusiastically and so diligently. Maybe more important than learning the lesson is learning how to help others; I hope that they will apply this outside school too. Many problems in our society would be overcome if we learn to accept and help each other” (WR/ 4).

Amal’s reflections could be regarded as practical and critical. She values that the students learn with enthusiasm and learn to help each other, but she also refers to the importance of instilling in students values that would help to play a more significant role in their society.

Fatima did not believe that experimenting with group work near to the end of the academic year was a good idea, but there were some reflective statements in the journal: *“Although I asked the students to set the rules that they think are important, such as working quietly and respecting all the members of the group, most of the students did not abide by them. There was a lot of arguing and some were even shouting. How can we make students abide by rules? Why is it that some students follow rules and others don’t? Is it to do with how they are brought up at home? Or is it that we are born this way? I know you always say that you do not have answers (she was directing her writing to me) but I would really like to have a discussion on this” (WR/ 5).*

Fatima’s journal reflected critical thinking, if not critical reflection. She seemed to be questioning the nature versus nurture issue and this has the potential to open up other avenues for questioning and exploration related to teaching and learning which could be a trigger for the process of reflective thinking.

As for teachers in the peer observation group, there was also a marked difference in their reflective thought. During the feedback sessions, the teachers gave each other support and encouragement but were reluctant to give negative remarks on their peers’ classes; however, the discussions were rich with reflective remarks on their own teaching. The following are examples of teachers’ reflections:

Taghreed expressed what she found out about group work: *“I always thought that group work caused much noise in the classroom, but it seems the teacher is the one that hears it most... may be this is because she is too worried about not disturbing the other classes....As I observed Sereen’s class I realized that the noise level was acceptable although she kept telling the students to lower their voices...I think I do that in my class. I think from now on, I will not be as reluctant to use group work in*

my lessons. The noise is not really that bad, especially when you see the level of student motivation that group work generates” (Peer Observ.- 2A).

Noura expressed that she enjoyed sitting in a colleague’s class and that she was continuously thinking about what she did in her class: *“You know I realized that students at this age love to take the role of the teacher. Looking back I realize that I have tried that in my classes, but after seeing how enthusiastic they were in Mona’s class, I think I will include more activities in my lessons where students play the role of the teacher” (Peer Observ.- 3B).*

Safa started to plan for her classes while she was in her colleague’s class: *“Watching Taghreed’s class made me realize how important it is to carry out experiments in class. She was demonstrating how metal expands when heated; it was amazing to see how drawn they were to what was going on; they were actually pulling their chairs closer to the teacher; I think every student was paying attention and that is very important. She did not explain what was going on; the students themselves figured out that metal expands when heated; I do not think they will ever forget that lesson. I do not think I can do experiments in my class, but I can write short plays and they could act it out; this maybe will get their attention just as much” (Peer Observ./ 2B).*

Each teacher of the six in this group engaged in practical reflection; the above quotations are only some examples; teachers were questioning their teaching practices but in the light of how these practices affected students’ learning and students’ motivation. Teachers felt that sitting in another teacher’s class helped them to see themselves and their students more clearly. Observing other teachers was a trigger for the teachers to engage in self-evaluation and all of the teachers expressed that the exercise was very important and each had suggestions for ways to include peer observation on their schedules the following year. The following quotations sum up how teachers felt:

“It was a very nice experience. I felt that I learnt a lot; the interesting thing is that when you see another teacher doing something that is not very effective, you directly relate it to your behavior in your class; what is more, no matter how many times others tell you that this behavior is ineffective you do not really listen, but when you see it and you take the decision, on your own, to do something about it; that is when you get committed to change” (Peer Observ./ 1A).

“I think that all the teachers should try to visit each others’ classes; I was very reluctant at first to sit in Hiba’s class, but after going through the experience, I now realize that it was not only beneficial but also fun; I am

sure that any teacher that tries this once will decide to do it more often. The administration should really try to find a way to make us all visit each others' classes" (Peer Observ./ 1B).

6.2.4 Personal factors that impede reflection: The data collected in the first three phases of the study show that teachers seemed reluctant to share their reflective thoughts. Initially, they were more ready to express problems in the form of deficiencies in the curriculum, in the administrative procedures and in the educational system as a whole. They expressed that the curriculum was unrealistic in its expectations for the teacher especially in relation to the amount that they had to teach their students (the number of lessons that they had to cover over the academic year), in the lack of support they had from their supervisors and administrators (the overly evaluative feedback that caused them to feel unsafe and under pressure), and in implementing activities that they saw as overwhelming and unproductive (such as group work and silent reading).

However, as the study progressed, teachers became more ready to open up and discuss their teaching in more realistic terms and with a focus on their role in helping students learn. This could be explained in one of two ways: either that there was an accumulative effect for engaging in exercises that foster reflection, or that rapport was developed as a result of the recurring meetings between the teachers and me and, as a result, they felt more at ease and more willing to expose and explore their thoughts and feelings. The following are examples of this:

After watching the video recording of her class Safa expressed a need to learn more about the new curriculum and what it is really about: *"I would really like to work on improving my teaching. For example, I would like to attend workshops on the latest methods in teaching ... how we can change the way we are teaching if we keep on doing the same thing over and over again. We keep repeating the same things over and over and at the end we get really bored. If we feel this way then this will not help the students to learn ... I really feel bored every year doing the same lessons, the same pictures, the same procedures...I am sure that there are alternative ways to teach, but we do not know what they are" (D-Video- MP 54).*

Noura was having doubts too: *"I really do not know if we are following the new curriculum and its methods... you know, maybe we lack the necessary training to be able to apply the new curriculum" (D-Video/MP 50).*

These quotations could be related to two concepts: a lack of self-esteem and a lack of knowledge related to pedagogy. Teachers seemed to feel disempowered; their discussions implied a lack of belief in their ability to effect change. They felt that they had to do what is expected of them without questioning the results of what they are doing. This lack of self-efficacy is not only due to their perception of the educational system as highly authoritative (Colton and Sparks-Langer, 1993) but also due to their perception of themselves as lacking the necessary knowledge and skills (Shulman, 1987) to plan for and implement change.

Since self-esteem has been related to motivation (Bandura, 1977) and to perseverance (Ashton and Webb, 1986) it would seem reasonable to conclude that teachers' resistance to change, or to even examine what needs to be changed, is due to the lack of self-efficacy that was implied in a number of teachers' comments.

6.3 Social and Professional Contexts of the Teachers as Learners

As expressed by many teacher educators, the context which the teacher works in has a significant influence on her/his professional development (Argyris & Schon, 1974; Chan & Elliot, 2004; Day, 1999; Gregoire, 2003; Grossman, Wineburg, & Woolworth, 2001; Hashweh, 2003; Hargreaves & Evans, 1997; Hill, 2004; Kelchtermans, 2005; Levin, 1995). Before engaging in changing practices teachers need to go through a process of examining their concepts and beliefs about the learning process; this could be a highly demanding process both cognitively and emotionally; hence there is a need for a supportive environment that both challenges the teacher and supports him/her through the process of change and development (Argyris & Schon, 1974; Gregoire, 2003; Grossman, Wineburg, & Woolworth, 2001).

6.3.1 The role of the inspector, the coordinator, and the principle in teacher learning: The coordinator, the local authority's inspector and the principal were most often portrayed by teachers as playing an evaluative role rather than a

supportive one. The following quotations represent how teachers saw the authority figures in their educational context:

Munifa was explaining how hard it is to implement some of the suggestions made by the new curriculum and she expressed the way she sees the inspector: *"The people who come to observe our classes tell us: teach them this way and prepare the lesson that way ...I suggested to the inspector to give a lesson to my students but she did not agree ...If she could make a presentation and then we will see how it works and if her way is better than my way.... All she does is give us comments and comments and ...she always has some negative remarks but she rarely tells me where I taught well"* (A-Observ./ MP 41).

Rudayna had a very similar picture of the inspector: *"The inspector comes and gives me comments... usually negative comments...and she does not give me alternatives on better ways to teach... this is the way I do things and I think I know my students better than anyone else... so let her come into my class and see the way the students are and then see if the way she is proposing works or does not work ..or let her show me a better way to teach and explain to me how to do things; then she should come the next day and see if I am applying what she said and if the idea has reached the students or not"* (D-Video/MP 59).

Bahia feels that the inspector does not help her in developing her teaching strategies: *"All that the inspector cares about is what lesson I am at, and she looks at the 'lesson plan' and she observes in my class and checks whether what I have done in class corresponds with what I have written in the lesson plan."* (A-Observ. /MP 43).

Safa feels that her subject coordinator does not take her suggestions into consideration: *"I tried once to explain that it is not very useful to give tests to the first graders; it is not fair on them; the child is hardly reading, how can we expect him to read questions in the test and answer them, but the coordinator said that we need grades for the students and tests is the best way to evaluate them"* (A-Video/ MP 54).

Hiba explained that the words chosen by the coordinator's play a role in the effectiveness of her feedback : *"You know, it really makes a difference the way you are given feedback ... the way that the person says something really makes all the difference... when my coordinator says to me 'you could have tried this way... it might have been helpful', I would find it easier to listen to what she is saying... much easier than when she says 'Why did you do it this way (with accusation in her tone)?"* (D-Video/MP 55).

Screen feels she has been evaluated unjustly: *"You know in our school there is a coordinator that has to make an evaluative report about you at*

the end of the year and this could lead to unfairness at times. Maybe the coordinator visits a teacher's class on a day that she is not feeling well ... then the evaluation will not be fair... The coordinator does not always know the teacher's circumstances and sometimes no one can understand what the teacher is going through... so at the end of the year, if she is evaluated as fair or good that does not really mean that she is a good or a fair teacher" (Int-1/ MP 31).

Safa expressed her feelings of frustration generated by the authoritative system: *"There are strict rules in the school and the teacher needs to follow them and sometimes we do not have a say in things; we just have to do what we are asked to do and this is really annoying and it makes feel frustrated" (D-Video/MP 54).*

The above quotations reflect that teachers feel unsafe in their work environment. They feel threatened by the process of evaluation and they feel marginalized because their suggestions are not taken into consideration and because they are governed by inflexible rules and regulation. These feelings could act as a force that works against teachers' involvement in a process of self-understanding (Kelchtermans, 2005) which is a prerequisite to conceptual change. Moreover, teachers feel that they are not provided with accurate and unbiased feedback, nor are they given the freedom to choose between alternative methods of teaching; these characteristics in their professional environment could lead to developing defence mechanism that hinder the process of double-loop learning (Argyris & Schon, 1974).

It is important to note here that not all the teachers felt the same way about the inspectors or the coordinators in their schools. However, the above quotations are important because they demonstrate the teachers' perceptions of these authority figures and it is these perceptions that impact the way the teachers see themselves and, accordingly, the extent to which they are motivated to engage in the demanding process of change. The following are examples of teachers who perceived the coordinator in a different light:

Taghreed was explaining that her subject coordinator was very helpful and supportive: *"The coordinator that I am working with is really nice and she is helpful; she has something to offer... even now, when I can depend on myself more, I go to her and I share what I am doing with my students; I can tell her what I think and I can explain to her that I felt that it is better this way due to certain aspects in the class or in the students; at the end of the discussion she asks if I am satisfied with the results that I have and if I say I am she says; "ok carry on" ... I really feel that I can*

learn from her ... in every way... how to deal with the children, how to teach a certain thing, she even sometimes explains things to me in science... because I am not a science major... I feel that this is a person who can really help me” (D-Video/MP 51).

Mona feels similarly towards her subject coordinator: “...because I have a good relationship with my coordinator I always get back to her and ask her about her opinion and tell her what I have done differently and how things are going... because she is understanding, it makes all the difference... I am ready to change certain things in my teaching and sometimes in myself” (A-Observ./ MP 39).

Taghreed’s and Mona’s perceptions of their coordinators seem to be helping them to question their practices and to be open to suggestions and ready to take risks. They both reflect a sense of trust in their coordinators and this is encouraging them to seek another opinion or another perspective which could act as an eye-opener to any incongruence between what the teachers intend to do and what they are actually doing in their classes, hence, acting as driving force for change (Schon, 1987).

6.3.2 Opportunities and means for professional development: Since professional development is thought of as best when it involves teachers in a life long quest for learning and development, both the educational environment and the organizational culture need to facilitate this process of career-long learning (Chan & Elliot, 2004; Hargreaves & Evans, 1997; Kolmos, 2002). Teachers need time to engage in discussions with colleagues (Levin, 1995), and they need resources and materials which could provide alternatives for teachers to examine and experiment with before they can make informed choices. In many of the above teacher quotations the issue of time is referred to as “limited” and teachers express the pressure they are facing to “live up” to the supervisor’s and the curriculum’s expectations.

Teachers also referred to the scarcity of resources whether in the form of descriptive feedback (Kottkamp, 1990), or in the form of training in pedagogy (these have been discussed in earlier sections). In general, teachers expressed that there is a lack of teaching materials; the following quotations are examples of

what teachers see as their needs in the form of resources and how this is affecting their teaching:

According to Rudayna there is too much work to be done by the teacher and this is stopping her from finding about alternative methods to teach: *"You see, it all depends on the teacher... it is all your work not their (the new curriculum) books... although I am working with the new curriculum, I am applying what I know from before (from previous experience)... but our books have nothing ...they do not have any activities nor exercises there is nothing; look at the workbook; for each concept there are three or four sentences not more than that... I have to bring exercises from books that I have ...I mean I am using what I have been given before; there is a lot in the book but it is limited (in scope); sometimes I ask my neighbour she also teaches but neither of us has the time really to sit and exchange notes"* (A-Observ./ MP 44).

Munifa has a similar view: *"According to us... as you can see, we need mainly visual aids... in my free time I draw pictures and bring them to class... like for the lesson today (about toys) we should have a box full of toys... the child will see them and it would be better than showing them pictures only; of course then I can use my free time to find exercises or activities for my lessons"* (A-Observ./MP 41).

Hiba feels that the school should be better equipped: *"There are lessons where I need to use teaching aids, and I have to prepare everything on my own; the resources here are very limited. For each lesson the teacher needs to go to the bookshop, but I do not have the time to go to the shops and I do not have enough money to spend on these things, and the school can not afford to provide all that we need; they provide what they can and then I try to improvise"* (A-Observ./ MP 48).

Rudayna gives specific examples: *"In one of the lessons we have to use scrabble. Frankly, I did not know about this game before this curriculum and now I have it and when we get to the related lesson we use it in class. The children really enjoy it, but I only have one, and there are 25 students, so you can imagine what the problem is; I find it difficult to decide whom to give it to, so I end up playing with it myself and they watch me, or sometimes I choose 2 or 3 kids to play, and the rest would be watching. Other than that, there is the house furniture, when we take the lesson on house hold furniture I can only show them pictures, of course they have seen these at their homes, but if we had a doll house then we could show them the bedroom and the living room, and the kitchen and so on. Then they would definitely understand it better. Now they learn the names of the rooms but when I teach all of them together they become confused"* (D-Video/MP 59).

Noura thinks that the text books are not very useful and would like to change them: *"Last year we tried to convince the administration to*

change the text books but they opted out in the last minute; it is full of ideas for activities, it has the big book, cassettes, and it comes with a kit that is full of activities that are really interesting ... even us the teachers found it real fun; I think the students would have enjoyed it a great deal... we do not even have books for individual reading; we collect books from the students and they keep them in class and swap them and sometimes if they finish their work early they go through them ... sometimes they only look at the pictures” (A-Observ./MP 47).

In these quotations the teachers express that there is a shortage of teaching material (such as toys, posters, or books) and do not refer explicitly to shortage in pedagogical materials. However, it could be deduced that by providing these materials, teachers could have the means to experiment in their classes with alternative teaching aids, or that they could have more time to explore other areas related to their work.

Other teachers explained that they do not have the time or the means to find out about the latest in the field of teaching or about alternative ways to deal with their problems:

Safa says: “I sometimes feel guilty; we are doing the same thing over and over again and that is becoming boring for the children and for us. I wish I had time and money; then I could go back to college and take some courses on teaching; maybe that way I could find out if what I am doing in my class is good, or whether I could do things differently” (D-Video/MP54).

Noura feels that she has little time to discuss her problems with other teachers or the coordinator: “There is a student in my class who never pays attention; I have tried to seat him in the front to keep a closer eye on him, but this is not really working; I wonder how he is in other classes. I ask his other teachers and they say that he is OK; what do they exactly mean I do not know; I just wish we could have a meeting just to discuss this problem, but everyone is always busy with preparing lessons and correcting papers” (A-Observ./MP 47).

Mona also raises the issue of time but from a different perspective: “For each level there are sometimes three teachers teaching the same subject to different classes, and we all have to administer the same test, at the same time, to our students, and this is a problem because sometimes a teacher finishes the material and another does not and then she feels pressured that she needs to finish it in time for the test.. and we end up like we are in a race; who will finish first (laughs).... We should be

worried about who teaches best and to learn from each other what works and what does not work, but everyone is busy in finishing the lessons before the tests” (D-Video/MP 56).

However, the need for collegial interaction became most apparent after the peer observation activity, but all the teachers involved said that they do not have the time to engage in such an activity on a regular basis:

Sreen expressed the importance of peer observation: *“I just realized that it is very important to sit in another teacher’s class; it is such an eye opener, but we do not have the time to do this we can hardly talk during our breaks” (Peer- Observ./ 1B).*

Hiba felt that peer observation helped her to overcome her anxiety when someone visited her class: *“I think we really should visit each others’ classes more often; I used to get worried when someone invites themselves into my class, but it is not a big deal, while I was watching Sreen, I was not really concentrating on the details in her class; I was concerned with what I should and what I should not be doing in my class; I just wish it would become a fixed session on my schedule where I can visit other classes, but I know that even if the administration allows it, I will eventually get too overwhelmed with my work and not go to other teachers’ classes” (Peer- Observ./ 1A).*

Tagreed expressed the need to discuss matters with her colleagues: *“You know last year we decided that the teachers of each level should meet at least once a week and talk about their classes; we met a couple of times, but eventually we would sit together and all that we would talk about is how much work we have, so we decided to use the meeting time for our work... looking back at it now, I feel it is a pity that we did not continue with the meetings” (Peer- Observ./ 2A).*

These quotations add evidence to the proposition that teachers need to be exposed to multiple theories of action to help them make informed decisions about their practices (Schon, 1987), and to the importance of engaging in critical conversations with peers to develop one’s own theory in practice (Brookfield, 1995).

6.3.3 Students’ attributes and their perceived influence on teachers

introducing change: Teachers also referred to their students’ social background as a hindrance to implementing changes in their classrooms. They felt that the students were not ready for the new methods of teaching; for example, they felt

that the students neither had the means nor the skills to engage in project work. Moreover, teachers felt the students' parents were not equipped with knowledge that could help them to provide their children with the necessary academic support that they need in the context of the new curriculum. The following are examples of what teachers said in relation to these issues:

Munifa explains that the students are not exposed to the letters outside school and all they learn is what they are taught in the classroom: *"I always tell them (the administration) that my only problem is that the students come to first grade without knowing their letters. I do not know if it is because they forget what they had been taught the year before, or if it is that they have not learnt the letters and their sounds well. All I am asking for is to be taught the letters and their sounds in the KGs and I will teach them to read. This will make it easier for me to introduce different activities during the lesson rather than being stressed about teaching the letters"* (A-Observ./MP 41).

Rudayna makes a similar observation: *"We have a major problem with in the new system, the administration is not allowed to make children repeat their classes and they automatically go to the higher grade the year after. There are some students that learn nothing during the year...in each class there are 3 or 4 students like this...they have not learnt anything in the first grade, so how are they going to work on projects or in a group activity in the 2nd grade"* (A-Observ./MP 44).

Samira B explains why it is difficult to give up the old methods of teaching, *"The activities in the new curriculum are all built around the idea that the students need to participate in class in order to learn; they need to think well about what is being introduced in class, but our students have very little to offer. When they go home they spend all their time playing in the streets; sometimes I feel that everyday I start from scratch all over again. How can we have group work or other activities when I feel that I am starting from a blank slate everyday"* (D-Video/MP 53).

Nesreen also finds difficulty in implementing the simplest new idea: *"Even a simple activity like making a theme poster with the students in class is sometimes nearly impossible; I explain to them a week before what we are going to do and ask them to look for pictures in magazines or in books and bring them to class, but when the day comes most of them have nothing and I end up working with 3 or 4 students. The rest say that they did not find anything; I wonder sometimes maybe they do not have books or magazines at their homes"* (A-Video/MP 52).

Screen has a similar example: *"For example, we are supposed to have class discussions where the students deduce the main ideas in the lesson;*

I find this the most difficult thing to do; they all speak together, no one listens to what the other is saying, so after a couple of minutes I stop the discussion and give them worksheets or something to work on individually. I sometimes feel that no one listens to them at home that is why they do not listen to others” (A-Observ./MP 46).

Therefore, teachers felt that their students were not equipped with the academic and behavioural skills that are necessary for implementing the new curriculum. Teachers saw their students as unable to provide input into the learning process; hence, they retreated to the traditional methods of the teacher-centred classroom which is dominated by lecturing and memorization; their rationale for this was that this approach is more effective for their students’ learning. This raises the issue of how far the teachers’ epistemological beliefs are compatible with the epistemological principles that underpin the new curriculum. The educational authorities in Lebanon state that the new curriculum is based on the theory of social constructivism. The premises that underlie this theory are that reality is constructed through human activity, the learner creates meaning through interactions with the environment, and meaningful learning takes place when the learner is engaged in social activities (Kim, 2001). From the teachers’ explanation of how they believe their students learn it becomes clear that the teachers’ epistemological beliefs are very different from the premises of the social constructivism theory.

The same problem was also tackled from a different angle:

Safa explains that there is a need to educate parents about the new curriculum: “...and the parents do not help; some parents support their kids but many parents do not cooperate with us; we ask them to come to school because their kids have problems and they never come. At the other extreme we have parents that come every day... if their child takes a test, they bring it the other day and ask about each mistake their kid did on the test... Why is this wrong? And why did you take off grades here and so on... some even come and complain that we have started a new lesson and their kid still has not mastered the old one... some ask why we aren’t teaching them grammar ...and we explain that in the new curriculum there is no grammar... I sometimes feel that if the parents knew about this new approach to teaching they could help their children much more” (D-Video/MP 54).

Mona the English teacher feels that parents’ lack of knowledge of English is a problem: “We do not have students that have parents that can

support them; they have no background (in the language); you have to do all the work; their parents will not follow them up. This puts us under pressure; it is very difficult for me to expose the students to as many texts as possible (as stated in the new curriculum) if there is no one at home to support them” (A-Observ./MP 39).

Noura believes that parents do not spend time teaching their children basic social skills: *“We find problems with the parents... like the student that has behavioural problems, or discipline problems, and there are students who would not listen no matter how many times I repeat the remark ... we ask some parents to come to school to discuss their child's problems but they never turn up...they send excuses like they are busy or some other excuse and sometimes we do not see them all the year... we have many cases like this. If you ask me how is this affecting the implementation of the new curriculum, I would explain that most of the activities in the new curriculum need students who have self-control and discipline, and the majority of our students are not brought up on discipline in their homes... If the parents are not disciplined enough to come to the meetings, how are the children going to behave in a group activity, or in a drama activity” (A-Observ./MP 47).*

Taghreed feels that she has to make sure that the students can read every word in the lesson before they go home: *“We go back to reading... no matter how much they tell me that I do not have to teach them reading I feel that it is important that I do so... imagine if they go home and they can not read a word or a phrase... their parents will read it to them in a wrong way and then it will become very difficult to “unteach” the student the wrong pronunciation ...especially in science... there are a lot of new words and the child does not see them in other classes, so I need to make sure that they learn it in my class” (D-Video/MP 51).*

In these quotations teachers explain that the students' parents, or social environment, create an obstacle for using the new approach to teaching. Again the teachers regard their input as the main source of student learning and other sources of social interaction which could lead to learning are undermined or marginalized.

6.4 The Researcher's Conceptual Change Process

In this section I will describe the changes that my belief system went through: how I changed my perception of the way teachers learn in the Lebanese educational system and how far this learning will lead to changes in classroom practices in the context of the Lebanese primary school. To help me understand this process and to explain it with as much clarity as possible, I will be using the Gregoire's (2003) Cognitive Affective Model of Conceptual Change as a

guideline in the following sections (refer to Appendix G for the flow chart of the model).

As I explained in the Methodology chapter, the school principals where this study was conducted had shown interest in my research, and I was invited to their schools to recruit volunteering teachers to participate. In schools A and B, the public schools, the school principals invited all the English language teachers to a meeting and introduced me briefly then added something in the effect of “she is doing research for her PhD and this year she will be helping us in the English department”. This, I felt, conveyed a wrong message to the teachers; since my role was somewhat seen as the “solver of problems”, a role that I definitely had not intended to play. This introduction made it necessary for me to stress during the rest of the meeting that the aim of the study is for the teachers to devise a plan for improvement; I tried to make clear that I will not come up with suggestions for change and that they will have to decide on the areas that they would like to work on or develop. After this clarification, I introduced the study and explained the proposed activities that the volunteering teachers would be involved in. Then I asked the teachers if they would like to ask any questions; a couple of minutes of silence passed before one teacher asked “How much time would we be expected to give you?” So I explained the procedures of the study: the initial interviews, the discussions after the classroom observations and the video recording, and the general meetings. In both schools I felt that the teachers were reluctant to volunteer, but it seems that the presence of the principles “convinced” them to write their names on the volunteers’ list.

In school C, the process was less formal; I had worked with a number of teachers in the school on a previous project, so the school principal felt that I could explain to the teachers the research and what volunteering in the study would entail. Accordingly, I visited the staff room during one of the breaks and had an informal talk with the teachers; 7 teachers volunteered out of the 15 who were there. I had a feeling that these teachers were “authentic” volunteers.

As mentioned in the earlier sections, during the initial interviews, the teachers mainly saw their needs in the form of teaching aids, fewer children in the

classroom, or less interference from their superiors, i.e. their needs were described in terms of what “others” could do to make their teaching better. There was nearly no reference to their teaching practices or their approach to teaching or even questioning of the approach of the new curriculum. Moreover, teachers seemed to think of knowledge as simple and certain, and as being quickly acquired by a learner from a knowledgeable authority; and that made me question whether their epistemological beliefs were closer to the naïve end on the epistemological belief continuum (Schommer, 1995). Along with this, I also questioned the ability of the teachers to engage in self-evaluation and higher levels of reflection, let alone embarking on a process of conceptual change.

This questioning from my side, triggered my reflective thoughts on how teachers think, what affects their thinking processes and most importantly how would they become engaged in reflective thinking that can lead to change in behaviour. These reflections were usually recorded in my analytical memos on which the discussion in this section is based.

6.4.1 Using action research to help teachers develop their teaching practices:

The reform message in relation to my change process was reading about action research, its process and its effect on teacher development. Initially I was impressed by the underpinning principles of action research: democracy and empowerment. Hence, I approached the research with much ‘positive appraisal’ of a new way to help teachers develop. The result was a ‘heuristic processing’ of action research without ‘systematically processing’ the complexity of action research and the multi-dimensionality of its implementation: the attributes of the people involved, the influences of the social and the cultural contexts, and the dynamics of the micro-politics of the educational system as whole. I yielded to the new approach with ‘superficial belief change’; the theory of action research was only assimilated by me at this stage and I truly thought that implementing action research in the schools was going to be a straight forward process; after all teachers know their contexts, their students, their subject matter; all that I would have to do is trigger their reflective thoughts on what needs to be improved and support them while they plan, implement, and evaluate the changes that they decide on.

After the initial set of interviews in phase one of the study, my process of conceptual change was reset at start. I listened to the teacher interviews, transcribed sections that I felt were related to reflection or to the reconnaissance stage of action research, but there was very little that could be analyzed, so I went back to the literature on action research and reread a big portion of it. Looking back at what I was experiencing, and rereading my analytical memos, I realize now that this was the time when I started to regard the message of action research as 'problematic', and that is when I started to 'appraise the situation as stressful' and there was a great deal of 'corresponding anxiety'. I wrote in my memos:

"Will this work in our educational system? Will the teachers actually evaluate themselves? They seem overwhelmed by how others are evaluating them; how can they evaluate themselves when they are always trying to justify to others what they are doing in their classes and outside their classes? Maybe this study will never get anywhere and all the data I get will be restatements of how unfair the system is or how inadequate the books are!"

Teacher reflection was my concern at the initial phases of the study and, accordingly, it was the main source of anxiety. If reflection is defined as the "dialectical process that looks inward at our thoughts and outward at the situation in which we find ourselves.... it is thus meta-thinking (thinking about thinking) in which we consider the relationship between our thoughts and our actions in a particular context" (Shkedi, 2000), teachers were not questioning their thoughts nor their action, at least not explicitly; they were mainly engaging in describing what they thought was wrong in the context that they were teaching in, with nearly no reference to how they were thinking about implementing the new curriculum or about whether their practices in the classroom were in line with what the new approach suggests, let alone whether their teaching methods were leading to effective student learning. The following quotation from my memos is an example of my attempts to make sense of the data collected by that stage:

"While listening to the teachers' interviews, I am finding it very difficult to identify reflective thoughts. It is either that my analytical skills are not refined enough to be able to detect reflection, or that there is really no reflective thought. In reference to Sparks-Langer et al.'s (1990) Framework for Reflective Pedagogical Thinking, teachers could be considered to be describing what is going on in their classrooms through

simple layperson language with no use of appropriate terms to label events, but at the same time, they seem to be using tradition and personal preference to explain their actions in the class. Therefore, although teachers are not at level two of the frame work, there is indication of level-three reflection. Is this logical? Or is the framework not applicable in this context?"

6.4.2 Sources of motivation to continue with action research: Gregoire (2003) explains that "our resources for coping" (p. 167) affects the way we deal with a stressful situation and resources are both: personal, our efficacy beliefs and knowledge, and situational, the available time and support from others. These help us to perceive a problematic situation as either challenging or threatening. If the situation is perceived as threatening then the subsequent behaviour is avoidance, otherwise the message will be processed systematically.

I had not really experimented with action research, but I had read about it and had been impressed with the many research reports related to it. So my knowledge was mainly theoretical and that is where my self-efficacy played a bigger role in motivating me to carry on with the plan for the research; although there were times when I considered going back to the drawing board and there were times when I started to seek alternative ways to pursue the research, but the action research approach was still the most plausible, if at the same time the most challenging. Therefore, my belief that action research will eventually lead to sustainable change in teaching practices was the main motivating force that helped me to persevere through the study. I wrote in my memos:

"This approach (action research) makes sense but it needs time and commitment. There might be other alternatives that will be easier to document and analyze, but still action research seems most plausible because it is teacher directed and teacher monitored; if they are expected to make the reform work then they have to be allowed the time they need to process it, experiment with it and adapt it to their styles and approaches. If teachers do not go through this process then superficial applications of teaching techniques will be the most likely result."

According to Bandura (1997) prior mastery experiences are the strongest influence on teacher self-efficacy, however, that did not apply in my case. It was the belief that every person (given adequate time and support) can learn and change that was my driving force. Of course, learning and change take place in

different degrees but change is inevitable. Another major source of efficacy was vicarious experience; action research had led to results in other research (Gough & Sharpley, 2005; Gravett, 2004; Haggarty & Postlethwaite, 2003; Jaworski, 1998; Stuart et al, 1997) then it must lead to some kind of change in this study. Another conviction that helped me to persevere with an action research approach was a result of my experience with the workshop approach to teacher training. I had attended many with a number of my colleagues but the influence of what was presented on our classroom practices was minimal; a common feeling was that the ideas are great but we can not apply them in our classrooms; again an indication of superficial learning or assimilation rather than accommodation.

It was my ability in implementing action research that I was questioning most frequently, yet I believed that we had a whole academic year (from September to May) to go through the process, and I had enough support from the research department at the university; there were other researchers who had had experience with action research and there were ample resources that I could refer to when I needed to. The result was that I approached the research with a “challenge appraisal” and this led to the next step: systematically processing action research.

6.4.3 Systematically processing action research: According to Eagly and Chaiken (1993) systematic processing is “a comprehensive, analytic orientation in which perceivers access and scrutinize all informational input for its relevance and importance to their judgemental task, and integrate all useful information in forming their judgement” (p. 212). Looking back at my memos, I realize now that what I was engaged in was similar to the process described in the above quotation.

During my visits to the three schools over a period of 9 months, I was formally and informally collecting information about the teachers, the students, and the school; and simultaneously, I was reading about literature related to my research. These were my sources of input, and at each stage my analysis was focused on certain aspects or areas, depending on the issues that I perceived as problematic at that stage. For example, after the second round of interviews, i.e. after

discussing the notes that I took during my visits to the teachers' classes, I wrote in my memos:

"For the past three weeks, I have been observing teachers in their classrooms and meeting with them to discuss their classroom practices. The majority of the teachers' first question after I visited their classes was: What do you think? How did you find the class? This proved very awkward for me. After reading Kottkamp's (1990) article, I decided not to give teachers any prescriptive feedback; no evaluation, neither positive nor negative. But the way the teachers reacted to my refusal to engage in evaluation was heartbreaking at times; some of them just went quiet and I felt as if they were thinking that I found something wrong or that I had some negative feedback, but I was reluctant to share my thoughts. I always replied that it does not matter what I think, the important thing is what they thought, but they did not seem to understand my reaction; maybe this is because their classes are only visited for evaluation, either by the inspector or by the coordinator. I realize that not being given evaluative feedback will be difficult at first, but I think with every interaction with them, they will realize that I REALLY do not think that my evaluation is important; maybe then they will resort to self-evaluation because they will feel safe to truly investigate their work and they will take more responsibility for what they are doing. This might be related to the issue of locus of evaluation; I need to investigate that further."

Moreover, each stage of analysis generated propositions that informed the next phase of the research. For example, during the first teacher meeting, I realized that the teachers were not very welcoming to the idea of coming to meetings after school hours, since it was not possible to meet during school hours because the teachers had to come from different schools. To start with, only 7 out of the 12 teachers attended the meeting, the other five sent verbal excuses with their colleagues; 4 teachers arrived about 15 minutes late and each had an explanation: delays due to transportation or due to attending to some aspect of their work that they did not have time to attend to during the day. Moreover, during the meeting the teachers seemed preoccupied and some expressed that they would have to leave early because they had other matters to attend to, such as picking up their children from school. These factors influenced the mood of the meeting and the teachers in general did not participate. This led to an initial change in the research plan. The following is an example of entries in my memos that demonstrate my concerns at that stage:

“The first general meeting was not as successful as I had anticipated. The teachers in general did not share in the discussion; at some stage in the meeting, I felt I was doing all the talking; it seemed as if I was lecturing. Teachers seemed preoccupied with other matters: their children, their corrections, their shopping...I realize that discussion is very important for reflective thinking, but in this atmosphere how are teachers going to reflect? Reflection is a demanding process that needs effort and concentration, but if teachers are not willing to share in a discussion, this will be a waste of time. Moreover, if action research is based on the principles of democracy and empowerment, how democratic is it to ask teachers to engage in something that they do not want to do, or to participate in meetings which they regard as a burden rather than a learning opportunity. I will have to discuss the issue of general meetings openly with the teachers and find an alternative if the majority express that they are unwilling to attend them.”

On my subsequent visits to the schools, I opened the subject of general meetings; teachers were, in general, not very welcoming to the idea. They found it as an extra activity over and above their daily tasks. So we decided that in each school, I would schedule a meeting during one of the breaks and meet with whomever is available; for me that was the closest I could arrange to group discussion. Again these meetings were not very fruitful. Teachers were distracted by what was going on in their classes: students not doing their homework, students misbehaving and other similar issues that teachers encounter in schools. I tried to bring focus to the meetings by asking questions related to the topics that were on their minds but again the conversations usually diverged into other areas and the focus was lost. For me the meetings were useful because they helped me to see the teachers in their other roles; colleagues, friends, mothers, daughters, depending on what was being discussed. However, some teachers seemed to want to discuss personal matters that are related to their work in the school, such as their relationship with the coordinators or with the administration. Safa asked me if she could have a word with me in private and when we were alone she explained her problem with the administration. This is what I wrote in my memos that afternoon:

“Today Safa tried to explain to me that she is facing problems with the school principle, Wadad. It seems that they were friends before Wadad became the principle and Safa is finding the new situation difficult to deal with. She said that she does not expect any special treatment from the

administration but she also did not expect to be handed a “warning” letter because she did not attend the end of year school exhibition. Since I do not know the other side of the story, I tried to listen only. The only questions I asked were about how she felt and what she plans to do about this. This might be a minor detail but it made me realize how disempowered some of these teachers feel. The literature is clear about teacher empowerment and its effect on teachers’ performance in schools, but how far can an outsider help teachers to become empowered if the whole system works against it? Feedback is only evaluative and all decisions are made in a top-down approach. How can conceptual change take place in a context where different factors work against the development of teachers’ self-efficacy? How far is change possible?”

This conversation and similar ones opened up a new area for investigation: teacher empowerment and its importance in relation to development. The literature on teacher empowerment seemed to share the underpinning principles of action research. According to Short (1994) empowerment is “a process whereby school participants develop the competence to take charge of their own growth and resolve their own problems” (p. 1). If teachers are expected to define their problems and devise plans for improvement then they need to have the necessary skills and they need to operate in a conducive atmosphere. Empowerment seems to be an integral part of action research and action research would not succeed in improving practice if teachers are not empowered; at the same time action research is regarded as a tool for teacher empowerment (Henson 2001); this is especially true of emancipatory action research which seems to be the ultimate aim of all advocates of action research.

The investigation of teacher empowerment, however, opened up a new dimension in the study; namely the impact of the school culture on action research. As mentioned above teacher empowerment is both an aim and an ingredient of action research; therefore, what is necessary for one is necessary for the other. In her article, Short (1994) outlines six dimensions for teacher empowerment: “Involvement in decision making, teacher impact, teacher status, autonomy, opportunities for professional development, and teacher self-efficacy” (p. 2). From the data collected, it appeared that teachers worked in environments that did not provide the necessary conditions for empowerment. Teachers were expected to follow the orders of their superiors with little involvement in decision making and decision taking. They felt under appreciated due to the

excess of evaluative feedback and to the rarity of encouragement. They questioned their ability to impact students' achievement and at times decided to give up on some students too early. These are some examples of how teachers see their role with slow learners:

Rudayna tries to help them at the beginning but seems to give up on them early in the year: *"With these students I try at the beginning of the year, I try a little but when I am sure that they can not learn I give up and to tell you the truth I ignore them, because I will then have a group that is learning well with me and these weak kids still have not learnt anything. And I really have no time for them; if I waste time on them then this will be at the cost of other kids"* (A-Observ./ MP 44).

Dolli feels that she is not equipped with the necessary skills to help students with special needs: *"At the beginning of the year I try with all the kids, but with the difficult cases I do not know how to teach them or how to make them learn. If somebody can come and solve this problem, I will be more than happy"* (D-Video/ MP 60).

Although Munifa expresses how sorry she feels for them, she explains that she does not have the time or the skills to be able to help them: *"I mean one should try... I really feel sorry for them; they come in and they stay all year in class and they do not learn anything. I really feel sorry for them; I can not teach them and I do not know how. I have very little time, so I really have no time to check on the child that has not learnt anything. So if we can find someone that would take care of these kids then this might help... we have in each class two or three kids like that"* (A-Observ./ MP 41).

These examples reflect how teachers perceive their impact on students' learning. They easily accept the fact that they can not help these students and as a result look for ways to absolve themselves from their responsibilities. Teachers' comments divulge their belief that they cannot help slow learners and this affects their levels of perseverance with them.

Moreover, teachers' perception of their jobs and themselves seems to be influenced by many factors in their work environment. Meagre salaries, poor working conditions, and a highly authoritative management are some examples of the factors that cause teachers to feel unimportant and left out, especially when it came to critical decisions that affect their life and work at school. Accordingly, teachers seem to lose their sense of pride in their job and their commitment to the

profession as a whole. It is this attitude that can be detrimental to reflection and action (James, 1996).

The above analysis highlighted the importance of working with teachers in a way that would help them to regain their belief in themselves and in their ability to impact students' learning, yet I was aware that my role in this area is very limited due to time constraints and due to the lack of influence that I have on the disempowering factors. However, being aware of the problem guided me in the decision making process through the study. To start with, researchers agree that knowledge and professional growth are empowering factors (Short, 1994), so during one of our coffee breaks, I asked a group of teachers if there is a particular topic that they would like to explore further and the majority agreed that they would like to learn about group work; this was phase 5 of the study.

Phase 6 of the study, the peer observation phase, was also informed by the above analysis of teacher empowerment and its importance to professional growth. A group of teachers expressed that they would appreciate some feedback on their practices in their classrooms. This seemed as an opportunity to "put teachers in the driver's seat", so I suggested that they visit each others' classes and give feedback to one another. The exercise not only proved useful in developing reflection, but also in providing an opportunity for teachers to recognize each others' work and to highlight areas of competence that tend to be taken for granted. The following are examples of teachers' feedback which could be effective in developing teachers' capacity to support one another in a context that lacks the attributes of empowerment:

"I have only known Sereen as colleague outside the class, visiting her class has made me realize things about her personality that I had not known before. She is well organized and she is both friendly and firm with the students. She makes sure that everyone follows the rules in her class with out resorting to shouting and raising her voice. I have learns a few things from her. First, if a student says something in Arabic she asks him/her to say it again in English; this is a good way to help them develop their fluency. Then the way she presented the lesson was very interesting. She started by hanging a poster on the wall; then students engaged in a series of activities about and around the lesson; and then, at the end she asked them to open their books and read the lessons. She

made sure that they were well prepared before they started reading. Very nice... ” (Peer Observ./ 1A).

“Hiba is very calm in class, I like that. She keeps revising previously taught concepts in new ways; this gives a chance for students who had missed on something to catch up without causing boredom to the other students. I really like the way she manages her class; she actually found time to make sure that every student had a chance to go to the board and solve a problem; they love going to the board. I do not do that in my class; after seeing in Hiba’s class how much students enjoyed writing on the board, I am trying my best to make opportunities for my students to write on the board.... They really enjoy it; I had not realized that before ” (Peer Observ./ 1B).

“I thought that Safa was really brave to take her students to the school garden and give them the class there. This class is known for being overactive and very difficult to manage, but she was able to get their attention all the time even in the school garden ” (Peer Observ./ 2A).

“I felt that Noura is very active in class; by going around and checking on students’ work she was able to actually spend a few minutes with every student. What I really liked was the way she frequently assessed students’ learning; I felt that it is very important; this way the teacher will know if they have learnt the concept before she moves on to the next one. She also has excellent antennas; she was aware of who was paying attention and who was not ” (Peer Observ./ 3A).

“I was impressed by the way Mona’s students spoke English; they spoke English all the time; I need to make sure that my students do that too. I think it is because she takes her time to listen to them; for example, she asked them what they did over the weekend and then she follows up with them to explain further. I was really impressed ” (Peer Observ./ 3B).

The above discussion represents examples of my processing of what I perceived as critical input. I felt at times that the daily events and the data that I collected from these events were directing me to my next set of questioning and investigation. There were issues that I had not thought about originally, but the interactions with the teachers guided my search for alternative routes to pursue answers to my research questions and drew my attention to conditions or factors which are crucial for teacher professional development and which I had not considered while planning for the research. Although, this resulted in diversifying to other areas at times, it also helped in enriching my thinking processes and analysis which was a necessity for appreciating the complexity of action research.

6.4.4 Accommodation of action research: I believe that going through the process of implementing action research has made me realize that this approach to teacher development is time consuming, highly complex and difficult to document in terms of results.

This was not clear in the early phases of the study. During the planning phase of the study, action research seemed to be quite promising for teacher development, but after implementing action research in the context of the Lebanese educational system, it became clearer that there seems to be many aspects that the theoretical presentations of action research do not explicitly explain or that they cannot be fully comprehended by an inexperienced researcher. However, the flexibility of this model allows for the systematic processing of unanticipated aspects and allows for rethinking the original plan and for introducing changes which could aid in progressing through the phases of the study. Accordingly, the action research model has proven to have the necessary resilience that allows for the consideration of the particularities of a certain context; hence making it a research approach that fosters learning and development in the areas that seem most crucial for the participants.

Moreover, action research allows the participants the necessary time and opportunity to explore one concept before moving to another; this ensures deep learning through a process of conceptual change as opposed to superficial learning that is characteristic of the top-down approaches to teacher development.

Although, as discussed above, it is very difficult to implement action research in a context where teachers are disempowered, this kind of research seems a necessity to help teachers acquire both academic and social skills that would lead to higher levels of self-efficacy resulting in higher degrees of professionalism which is a necessity for effective practice.

For all of the above perceived attributes of action research, it seems that it is an efficient and effective model for teacher development, even if it is complex and demanding to implement. Teaching is a multidimensional task and accordingly

developing teaching practices cannot be a linear process, but a diverse and a complex one.

6.5 Conclusion

According to action research, the first phase in the process of teacher development is to understand their context, what they are teaching, how they are teaching, and why they are teaching. This chapter relates mainly to this phase in this study's action research and it reveals how the teachers understand their role in the context of a national educational reform. However, before teachers can introduce changes to their teaching practices they need to go through a process of conceptual change which has reflection at its heart. Therefore, teachers need to develop reflective skills that will enable them to investigate the different dimensions of their job; for example, themselves as teachers, their students and their characteristics, the educational system with its hierarchal structure, the curriculum and its underlying principles.

In an educational system that is highly authoritative and that does not adopt a reflective approach to decision making and decision taking, teachers need much time and opportunity to develop the necessary skills and efficacy that will allow them to engage in the above described investigation. These ideas will be discussed in more detail in the next chapter. It is this time and opportunity for development that needs to be at the heart of any educational reform that could lead to development in teaching practices and eventually to improvement in student learning.

CHAPTER 7

CONCLUDING REFLECTIONS

7.1 Introduction

In this chapter, I will pull all the pieces of the jigsaw puzzle together to make sense of all that has been discussed and analysed up to now. I will start by restating the key aims of the research and link these aims to the main findings. I will also discuss in more detail the use of action research to foster professional development among primary school teachers in Lebanon and reflect on the role of the facilitator in this context and on what I, as a researcher, have learnt from this study and how this learning affects my understanding of teacher professional development and its future in Lebanon.

Then I will discuss the implications that the findings of this study have for teacher professional development, for educational authorities and policy makers and for action research in the field of teacher education.

In the last two sections of this chapter, I will outline limiting factors that had an impact on the success of the study and then suggest platforms for future research that could be pursued.

7.2 Pulling the Pieces Together

As mentioned in former chapters, this study was triggered by a belief that it is the teachers who have the most significant role to play in helping students to develop both academically and socially, and since any reform plan in education aims at improvement in students' academic and social achievement, then it is the teachers who can play the major role in achieving these aims. This belief has been confirmed by the researchers in the fields of professional development and educational reform (Davies, 1996; Fullan, 2000; Hargreaves, 2000; Hopkins and Levin, 2000; Riley, 2000).

Therefore, since teachers have such a powerful role in improving education and its outcomes, then it is essential to investigate the most effective and efficient ways and methods that would help teachers to understand innovations introduced

and to persevere through the demanding process of learning for sustainable change. This process could be both demanding and distressing, especially that it needs to take place along side the teachers' overloaded daily routines.

Furthermore, if the context of reform is an educational system that is both authoritative and disempowering to teachers, then the challenge for teachers and for the advocates of change is even larger and more complex.

The data collected and analysed through this study confirmed that teachers in primary schools in Lebanon had not had the time or the opportunity to go through a process of learning that would lead to change in classroom practices. Teachers explained the innovations introduced by the reform in terms of teaching methods and teaching activities with virtually no reference to the theories of learning that inform these innovations and the result was confusion and frustration. This brings into question the relationship between knowledge and reflection. According to Shulman (1986), to be able to reflect, teachers need to be equipped with knowledge that is related to the content of their subject matter as well as to the pedagogy of that subject matter. This knowledge gives teachers the freedom, or the opportunity, to reflect. Shulman states that knowledge guarantees "...the flexibility to judge, to weigh alternatives, to reason about ends and means, and then to act while reflecting upon one's actions" (p.13). Hence a lack of knowledge led to a lack of opportunity for reflection and this in turn led teachers to resort to teaching approaches that were not very different from the ones they had experienced as students. A perfect example of this is teachers' dissatisfaction with the new teaching techniques introduced, such as spelling and silent reading, which according to reform planners are meant to develop students' analysis and critical thinking skills, as opposed to memorization and rote learning. However, teachers' lack of awareness of this perspective has led them to resort to teaching techniques that are based on memorization such as asking students to rehearse paragraphs for dictation and to memorize grammatical rules through drilling exercises.

Moreover, the analysis of the data collected in this study reflects the fact that teachers in general state that the curriculum's content is closer to students' needs and interests and that it is presented in a way that involves students and that

encourages them to participate in the learning process through classroom activities, rather than being passive recipients of what teachers present as knowledge. This statement is, however, contradicted when teachers explain the difficulties that they are facing in implementing the curriculum. For example, teachers in general state that group work is ineffective for learning and is a source of disruption and even chaos in the classroom, even though it is one of the main aims of the new curriculum to introduce diverse teaching methodologies into classrooms with an emphasis on cooperative learning. It could be concluded here that although teachers feel that the new curriculum is better than the old one, they find it difficult to implement. This could be related to their lack of experience with the approach of the new curriculum, which was not provided for neither through the workshops that they had attended nor through their interaction with their coordinators and the local authority inspectors, who, theoretically speaking, have the responsibility of facilitating the implementation of the new curriculum.

Moreover, the data collected lacks any reference from teachers on their responsibility to address the student as a whole taking into account the emotional and the social needs, an aim that is explicitly stated in the new curriculum. Teachers still seem to be overemphasizing students' academic needs at the expense of all other needs and this is justified by the lack of necessary time needed to cover all the material included in the curriculum's syllabus. Teachers explain that they do not have enough time to teach students all the lessons in their textbooks and this leads to ignoring students' other needs especially the needs of slow learners.

Therefore, although the new curriculum, which is based on the theory of social constructivism, aims to introduce innovations to the teaching-learning process with an emphasis on enriching the learning environment with experiential learning, as opposed to theoretical learning, and on student-centred learning, as opposed to teacher-dominated teaching, the majority of the teachers in this study still seem to adhere to the traditional model of teaching and learning even though they are committed to teaching the new content introduced by the new curriculum. Here it becomes imperative to question the legitimacy of investing a

substantial amount of the limited resources of the country in a reform plan that did not lead to any substantial change. A country which is in dire need to rebuild and re-establish itself after 20 years of civil war that rendered it fragile in all domains: the social, the economical and the political.

However, one of the most interesting paradoxes revealed by the analysis of the data collected is related to the stated aim of the new curriculum to approach education in a manner that would foster principles of free expression and democracy, as opposed to authoritarian principles. Teachers who participated in this study recurrently express their frustration with the over evaluative approach of their superiors, such as the local authority inspectors, the subject coordinators and the school administrators. Their description of their relationship with these personnel reflects a high level of disempowerment and anxiety and seems to depict their work environment as unsafe for risk taking or for experimenting with alternative methods of teaching. The result is a context that fosters adherence to authority and that acts as an obstacle to the development of critical thinking. This raises the question of: how can teachers foster principles of free expression and democracy in their classrooms while they are working in a system that is characterised by authoritarianism and lack of freedom of expression?

Since it was one of the aims of this study to investigate ways that would help teachers to develop their reflective thinking in the context of changes introduced by the new curriculum, later phases were designed to involve teachers in what the literature describes as activities that foster reflection (Kottkamp, 1990). Although, to start with, teachers' comments lacked reflection that could be identified as technical, practical or critical, eventually, teachers' reflections developed and there were incidents of reflection at the technical and the practical levels (Van Manen, 1977); teachers started to question their classroom practices and to question these practices' impact on students' learning. Another way to describe this development could be done according to the Framework for Reflective Pedagogical Thinking (Sparks-Langer, Simmons, Pasch, Colton and Starko, 1990). As discussed in chapter 4, the framework distinguishes among seven levels of reflection, where level 1 is the lowest with no description provided and level 7 is reflection that includes explanations with moral, ethical

or political issues. In the initial phases of this research, teachers expressed their concerns in simple, lay persons' terms, but eventually the majority of the teachers started to explain their difficulties and their concerns in relation to tradition or to their personal preference, i.e. teachers' reflections showed a development from level 2 to level 4 according to the framework.

This development in reflective thought could be considered as minimal, but, at the same time, any development could be regarded as an indication that even in highly authoritarian educational systems, where teachers regard themselves as technicians rather than professionals, there are ways that could help teachers to develop their reflective and self-evaluative skills. However, whether this development is a result of the accumulative effect of the activities or whether it is a result of a specific kind of activity, i.e. a result of theory based reflection and peer observation, is yet to be investigated.

7.3 Using Action Research and Professional Development in Lebanon

After the above summary of the general findings of this study, it is important to discuss in more detail the use of action research to foster professional development among primary school teachers in Lebanon. This will add a layer of understanding to the issues related to using this approach and to the barriers that are to be expected in the Lebanese context and in similar contexts.

As mentioned earlier, a major assumption underpinning this study was that teachers needed to go through a process of conceptual change before they could implement the new curriculum as it is intended to be and before they could develop the teaching practices that would allow for this implementation. Furthermore, action research seemed to integrate a number of aspects which could allow for this process of change. These aspects include developing understanding of existing practices with their underpinning beliefs and conceptions, reflecting on practice, relating reflection to action and developing teachers' belief in themselves and their ability to effect change in their practices and in their educational contexts.

However, implementing action research in this specific context was not as straight forward as it had seemed to be at the outset and there were major barriers that hindered its progress. Accordingly, in the process of conducting this research I have been able to develop a number of insights as to how to introduce action research in the Lebanese educational context and my interactions with the teachers helped me to adopt a new perspective on action research and teacher development that took into account their perspectives.

To begin with, action research presupposes that teachers reflect or think critically. This presupposition could be due to the fact that reflective approaches –a major component of action research- are rooted in the Western culture and this has led some researchers who have implemented action research projects in developing countries to question the appropriateness of these approaches in their research contexts (O’Sullivan, 2002). However, I still believe in reflective practice as a major avenue for professional development and sustainable change, but, at the same time, given the context of this research, I now question the effectiveness of a limited experience with a few interviews and reflection activities on equipping teachers with thinking skills that are necessary for further inquiry into their practices.

In the Lebanese context, and in similar contexts, it would seem more effective to start with a focused process of action and reflection before embarking on a full-fledged action research project. For example, teachers could start with a selected incident or event from a classroom and then be encouraged to probe it extensively and to look at it from different perspectives. This kind of exercise will not only provide for practice in critical analysis, but also for practicing with analysing vignettes from classrooms of teachers whom they do not know which is a condition necessary to reduce the emotional and social pressures that are present when analysing one’s own class or a colleague’s class. Therefore, initially, reflection could be practiced in an impersonal arena to aid teachers to focus on their thinking processes without being threatened by interpersonal and intrapersonal issues.

Another area that needs to be addressed more explicitly before implementing an action research project in the Lebanese context would be the area of teachers' research skills. While teachers in Western countries are required to go through teacher training courses, such as the PGCE in the United Kingdom, teachers in Lebanon are only required to have a degree in the subject area that they teach.

Although one might argue that not all teachers in Western countries acquire research skills from teacher training courses, in general, there is a teaching culture that tends to be more research oriented and the effort needed to develop research skills among these teachers is probably less than the effort needed to develop such skills among teachers in a Lebanese context. Therefore, it would seem crucial to integrate in the design of an action research study steps that would also allow for the development of teachers' research skills. An example of this is presented in *Responding to Student Diversity Teacher's Handbook* (Bartolo, Janik, Janikova, Hofsass, Koinzer, Vilkiene, Calleja, Cefai, Chetcuti, Ale, Mol Lous, Wetso, and Humphrey, 2007) which is a resource that provides materials such as reading excerpts, video clips and activities which could aid the teacher in developing his/her reflective practice and action research skills.

Another major area that needs to be addressed in the design and the implementation of an action research project in the Lebanese context is the social and political context in which it is taking place. As mentioned earlier, the educational system in Lebanon is characterised by an inflexible hierarchy and an authoritarian structure; this could form a major challenge for the implementation of action research which is based on the values of egalitarianism and democracy.

This kind of social and political context could affect both the teachers' ability to reflect and their ability to take action that is guided by their reflection. When teachers work in cultures that reinforce adherence and 'punish' actions which appear to challenge one's superiors then teachers become more reluctant to question the different aspects of their contexts and find it easier to follow instructions. This reduces the possibility for teachers to develop their reflective thinking in the natural way in which it is supposed to develop. Again, this adds another reason for integrating explicit exercises that aim at developing the

teachers' reflective thinking into the design of an action research project in this context.

Moreover, if and when teachers develop their reflective thinking skills, another issue that needs to be addressed is their ability to implement and experiment with the suggested actions that resulted from their reflections. For example, in this study teachers were initially reluctant to use cooperative learning activities because these activities raise the level of noise in their classrooms and, as a result, they are reprimanded by the floor supervisors and the school principals. Teachers need a safe and supportive environment in which they are encouraged to think freely and to experiment and take risks. Otherwise, there will be little chance for the development of a reflection-action culture which is a necessity for the kind of teacher development that is targeted by action research.

Therefore, it would also seem necessary to involve supervisors, subject coordinators, school inspectors and principals from the initial stages of an action research project. This will ensure that they get introduced to values of action research and that they experience first hand the importance of a supportive and safe environment for the development of reflective thinking and the action-reflection cycles. Eventually, this would increase the chances for the emergence of more egalitarian relationships among the 'supervisors' and their 'subordinates' and would ease the political pressures that work against the development of an action research project.

7.3.1 Implications for the role of the facilitator: Furthermore, in the process of carrying out this research, I became more aware that my extensive preparations and professional judgements needed to be interrogated through systematic critical reflection in order to facilitate the teachers' reflective thinking and I gradually became more aware that there can be no set rules for the role of the facilitator but there could be some guidelines that govern it. The above discussion of the need for prerequisite skills for teachers and for a conducive social and political context dictated a rearrangement of the priorities of my role in the implementation of an action research project in the Lebanese context.

According to Brown, Henry, Henry, and McTaggart (1988), there is a list of roles that need to be played by the action research facilitator. These include being a catalyst or a change agent, a critic of the process, a teacher of action research, a group recorder, a source of personal support and a resource person. However, in retrospect, I realise that at different phases of the study and in accordance with the needs of the participants at a certain stage in the research process, the facilitator needs to be more engaged in playing one role at the expense of the other roles. This is especially true at the initial phases of the research when there is a need to set the stage for the subsequent phases.

In the context of this study, my role as a facilitator was dominated by playing the role of teacher of reflective thinking. I was mostly engaged in explaining the rationale of the study, in planning for activities that would aid teachers through the process of reflective thinking, in encouraging teachers to question their classroom practices, and in probing the underlying assumptions which governed these practices. Simultaneously, I acted in a supportive and encouraging manner especially when the teachers were experiencing doubt and confusion about their practices. Accordingly, I believe that in this context only when teachers acquire the skills of reflective thinking can the facilitator play the role of working through the cycles of planning, acting, observing and reflecting. Then when the teachers gain experience in this kind of research process and acquire the necessary skills for it, the researcher can assume the more implicit role of the facilitator, i.e. the role of encouraging reflection, providing motivation and support and taking responsibility for organisational matters. Therefore, the facilitator here needs to play a more directive role in the initial stages of the research and gradually recede into a more of a supportive role.

Embedded in this process of change in the facilitator's role is the notion of empowerment. Since the final aim of an action researcher is to empower teachers and to aid them to become researchers of their own practice, then it is the facilitator's task to "(help) practitioners to get where they want to get, not (to get) them to where the researchers think they should get to" (Kosmidou & Usher, 1991, p.28). This task is not easy to accomplish especially when the participating teachers have little or no knowledge or experience in this area. Therefore, the

facilitator needs to start by helping the teachers to acquire the necessary skills and knowledge for their research and then to help them articulate where and what they want to get to. Through this process the facilitator has the very difficult task of gauging the degree of 'directiveness' of his/her intervention according to the needs of the teachers. At the same time, the facilitator needs to be aware of the final goal, the empowerment of the teachers, in order to check against slipping into the role of the "person running the show"; otherwise, all efforts towards participants' empowerment will be futile. Therefore, facilitators in this context need to be continuously engaged in a process of introspection and reflection through a second-order research process; this will help the facilitator to gradually reduce the power of differentials construed by the facilitator-participant relationship and to build a more egalitarian partnership which are two necessary conditions for enhancing the role of the teachers in the research process and in their professional development leading to teacher empowerment.

Therefore, the facilitator also goes through a process of fundamental shift in his/her beliefs, values and feelings about teacher development and through this process there will be change in his/her practice which could lead to sustainable change in the teachers' practices. This is what Carr and Kemmis (1986, p.33) refer to as praxis: "...informed action which, by reflection on its character and consequences, reflexively changed the 'knowledge-base' which informs it". In the previous chapter, Chapter 6 (under the section of "The Researcher's Conceptual Change Process), I discuss in detail the thinking process that led to changes in my belief system in relation to reflective thinking, action research and teacher professional development. This process of action and reflection was documented in my analytical memos and was the backbone of the second-order action research. Here, I examined my thinking in relation to facilitating an action research project with teachers in primary schools in Lebanon and my main concern was how my reflections affected my decision making process and my process of learning and its effect on the outcome of the study.

7.3.2 Reflections on the role of the facilitator: Looking back at the process, I now realise that my reflections developed from the technical, to the practical and then to the critical. To start with my main concern was the strategies which I

need to use in order to encourage teachers to question their practices. Then my reflections were more focused on teachers' developing their reflective skills in order to self-examine their practices. However, as the study progressed, I started to interrogate the socio-political context and its influence on teachers' reflective thinking and professional development. As a result of this progression in reflection, I gained insights that have led to a change in my understanding of reflection and action research in particular and teacher professional development in general. These insights can be categorized into three main themes: the theme of power in an action research project in Lebanon, the theme of my own professional growth and development, and the theme of reflective practice in the Lebanese educational context.

Theme (1), the issue of power: In relation to the issue of power in this research, it is clear that the original impetus came not from the teachers themselves but from outsiders (me, as the researcher, the new curriculum, advocates and implementers of the educational reform) and since the participating teachers were without any previous research experience, it was not possible for them to set their own research questions (Somekh, 2006). Accordingly, my original plan was to engage teachers in a process of self-understanding of their teaching practices without identifying a specific question or set of questions which would be the base of their research. I intended to engage teachers in a process of "progressive focusing" as described by McCormick and James (1988) hoping that the questions would emerge eventually.

A major concern for me from the outset of designing this research was that I should be neither too structured nor too directive in my design and approach. Both my academic and social backgrounds were regarded by me as a setback in this area. I had an MA in Educational Psychology from one of the most prestigious universities in Lebanon and I had worked for 15 years in what was regarded as the most privileged school in the city in which I lived. The school was owned by the Lebanese Prime Minister and was run by his sister who was also a Member of Parliament and the Chairperson of the Committee for Education in the Lebanese Parliament. Although this background is regarded by many in my community as an advantage, in relation to this research and to my

genuine desire to do research that was governed by the principles and values of action research, I regarded it as a hindrance because the teachers saw me as an expert with good connections. It is this perception that influenced many of my decisions during the course of the study. Since it is one of the principles of action research to keep the relationship between the researcher (the outsider) and the participants (the insiders) an egalitarian one and because I believed that the participating teachers were the most powerful and the most cognisant in relation to the educational context and the changes being introduced, I refrained from giving my opinion or giving feedback of any sort; in the spirit of action research, I believed that if teachers were given the space, time and support they needed they will be the ones to effect change in the schools. However, now, looking back at the research process, I feel that maybe this attitude on my side might have reduced the effectiveness of my role as a facilitator for change which might be a factor in the lack of any major change in the participating teachers' reflective practice.

Moreover, all through the process of the research I was aware that the way that the participating teachers see teaching and the way that I see teaching created two images of teaching that were different. While I thought of teaching as a profession, they regarded it as a technique and while my orientation was on the process theirs was on the product. So the question that kept me in check all through the process of the research was: How far is it possible for the teacher educator or the facilitator to refrain from imposing his/her beliefs about teaching and learning on the participants in a professional development project? And who or what decides which beliefs about teaching and learning are more 'worthy', the teacher or the teacher educator? More specifically, if I, as a teacher educator, believe in the constructivist approach (which is the underpinning principle of the new curriculum) to learning, how fair is it for me to impose it on teachers who have not had a chance to explore it or to experiment with it?

In spite of all this chaos and confusion on my part, I realise now that the process was inherently an evolving one and in trying to create a collaborative atmosphere, through out the research, I believe that I was neither a leader nor an authority figure. Rather, I was a researcher, while simultaneously facilitating and

participating in an action research experience. These distinctions were not always entirely clear or easy to accomplish and, eventually, I realised that in reality the research process was mainly led by the participating teachers' needs and it was their development that was setting the research agenda.

Theme (2), my professional growth and development: In addition to the issue of power, a second theme emerged through the second-order action research: this was my own professional growth and development. As mentioned earlier my analytical memos showed a development in my level of reflection and since writing in journals is one way for people to 'converse with themselves' (i.e. to reflect on their practice) engaging in these memos created an especially powerful means for exploring my beliefs, attitudes and perceptions of events. Since I deliberately connected reflection to action, in an attempt to understand and effect change, I experienced a shift in my own consciousness and a shift in my questions and perspectives.

In the initial phases of the research, my role was 'technical' in nature (Elliott, 1993; Louden, 1992), mainly paying attention to the 'doing' of action research. In time, my concerns began to shift from following the "rules" of action research, to a combination of adopting and adapting from the theory of action research in a way that most suited the context of my research. With the change in my perspective on how to implement an action research project, there was also a change in my perspective on my role in this project and, simultaneously, a change in my assumptions, feelings, beliefs and actions.

Although I feel that I have learnt a great deal along this process, what I find most interesting is the unanticipated and unplanned learning. I wanted to gain knowledge in the area of teacher professional development and now I find that I have learnt most about myself both as a teacher and as a teacher educator. As I examine the process of research and its evolution, I realise that at the outset of the study I had brought with me my previous experiences as a teacher receiving training and as a teacher trainer. This experience was supplemented by my readings and research on the theory and practice of action research which seemed to provide an answer for all my frustrations during my previous experiences.

Action research allowed teachers to go through a process of self-examination and context investigation before setting goals for change in a bottom-up approach. This was an alternative approach that could deal with all the barriers which I had faced and experienced in my career. It seemed to be the sought after alternative that could provide for solutions of the problems of traditional teaching training approaches and promised to be more effective than the imposed top-down approach which was a source of dissatisfaction and disappointment. Accordingly, now I understand how my perception of action research, as the answer to the problems that I had been facing in my previous experience with teacher professional development, could have been the main reason behind choosing it as the framework for this research.

However, now I realize that every action research process is unique and every research context is original and complex. It could be misleading to believe that the researcher, no matter how much preparation he/she has gone through, can anticipate all the problems and setbacks which will arise during the course of the research. Accordingly, the researcher in an action research project needs to enter with a mind frame characterized by openness and flexibility and be prepared to revise the design of his/her research on a regular basis guided by an explicit and extensive process of action and reflection.

Theme (3). reflective practice: The third theme that was identified from the second order action research is the means by which I was learning about myself, the particular research I was dealing with and action research in general. Recording my thoughts and feelings helped to interrogate the research process, the characteristics of the participants, and the different social and political pressures that influence the educational context and, as a result, I was able to reconstruct my understanding of action research in relation to the particular context I was dealing with.

I prepared for and designed this research with somewhat naïve enthusiasm and with little attention to the specific characteristics of those involved in the research and the educational context of the research. However, as the research proceeded I became gradually aware of the needs and attributes of those involved

and the characteristics of the context we were interacting in. I became more aware of the teachers' backgrounds and experiences and what these implied in the area of professional and personal needs. At the same time, I became more aware of the social and political structure in which the teachers were operating and understood its influence on their perceptions and feelings.

Although I can not claim a full understanding of the teachers and the context they are working in, I believe that through engaging in a process of thought and action, which is governed by praxis which is "the practical implications of critical thought, continuous interplay between doing something and revising our thoughts about what ought to be done" (Noffke, 1995), I became more aware of what the teachers were thinking and feeling and how their thoughts and feelings were influenced by the educational structure. This awareness created a more solid ground for my consequent actions and will be a source of reference for any further research that I carry out on teacher professional development in Lebanon.

In this section, I have looked in detail at the issues related to using action research to encourage teacher development in primary schools in Lebanon. Given the uniqueness of the Lebanese educational system with the particular characteristics of its teachers and the introduction of the new curriculum, I believe that this research contributes to the field of teacher professional development in Lebanon by providing a new approach to this area. I am not aware of any research in Lebanon that has used such an approach and I think that the findings and implications of this research provide a solid basis which could be built on by future research in this area and with this approach.

7.4 Implications for Teacher Professional Development

This research mainly provides evidence for the inadequacy of educational change that does not incorporate within its plan a strategy for teacher development that enhances teachers' reflective practice and that works towards profound conceptual change.

Since conceptual change is necessary to provide compatibility between the teachers' conceptions about learning and the principles of the reform introduced,

teachers need to be engaged in a process that allows them to investigate their conceptions, evaluate these conceptions' effectiveness on student learning and then autonomously decide on areas that need revision and that ultimately need to be changed. This approach to teacher development cannot be achieved through piecemeal workshops and training session. Teachers need to be given the time and the opportunity to go through this process and to arrive at new convictions in relation to teaching and learning; this might increase the chances for teachers' commitment to change.

Therefore, schools and educational authorities that want to ensure the development of teaching practices need to place teacher development through a process of conceptual change at the top of their priority list (Berkey et al., 1990). Moreover, since this process needs time and effort from all parties involved in the educational system, teachers need to be redirected in setting their priorities too. They need to be encouraged to give equal importance to the demands of daily routines and to their personal and professional development. This could be done through fostering a culture that gives equal value to being efficient in terms of correction and preparation and to investing time and effort in investigating theories of learning and experimenting with alternative teaching practices (Sparks- Langer et al., 1990; Stone, 1994). More specifically this could be done through integrating explicit opportunities for reflection into the school day with opportunities that allow for regular discussions on teaching and learning issues with colleagues (Muijs & Harris, 2006).

This approach to educational improvement and development will also yield results in developing teachers' self-efficacy and teacher empowerment. Knowledge and reflective practice can contribute to teachers' belief in themselves and in their ability to impact students' learning (Ashton and Webb, 1986; Bandura, 1997; Brookfield, 1995; Halliday, 1998; Schon, 1987).

Moreover, the above approach to professional development will yield better and more efficient results if it is supported by a trustful and safe environment. Since reflective practice involves exposing ones thoughts and anxieties, this could lead to feelings of vulnerability. In order to try to help teachers to overcome these

feelings and to persevere through a process of conceptual change, they need to be supported by an environment that is characterised by collegiality and trust (Colton and Sparks-Langer, 1993; Day, 1998; Hatton & Smith, 1994).

7.5 Implications for Educational Policy

To be able to provide the above conditions for teachers to develop and to create a culture that nurtures collegiality and trust, schools and educational authorities need to be supported and encouraged by the appropriate educational policy.

To start with, policy makers also need to go through a process of reprioritizing. They need to recognize the important impact that teachers have on educational reform. This recognition then needs to be translated into policy that encourages teachers to engage in an ongoing process of professional development (Bogler & Somech, 2004); this process could incorporate teacher evaluation and other control schemes that are necessary to ensure the development of the educational system (Darling-Hammond, 1990, 1997). Therefore, teacher evaluation should become a subcategory of teacher development rather than being used as an instrument that threatens teachers and creates an atmosphere of distrust.

Moreover, teachers need to be involved from the initial stages of policy development. This is important for two reasons: first teachers are in daily contact with students and their practical experience could prove to be very useful input for the planners of reform and for the advocates of change; especially that teachers can provide valuable insight on what students need to learn and how students can learn best. Secondly, if teachers are involved from the initial stages of the policy making process, they will be more likely to develop ownership for the changes introduced and this in turn will lead to higher levels of commitment on their side, a crucial factor for the success of reform (Hargreaves & Evans, 1997; McLaughlin, 1997).

Policy makers also need to recognize the importance of effective communication among all parties involved in the educational system. Teachers need to be listened to as much as they need to listen. If teachers are given the opportunity to voice their concerns and if they feel that these concerns are taken into

consideration by the authorities, they will feel less marginalized and more empowered. This will eventually lead to developing teachers' sense of professionalism and will impact their commitment to education and to the educational system they belong to (Smit, 2005). A practical way to achieve this is through encouraging teachers to get involved in research projects related to their work and their contexts. Policy makers can devise rules and regulations that both release teachers from less effective activities, such as routine meetings and mundane paperwork, and encourage them to engage in activities that would develop their research related skills, such as participating in teacher-researcher working parties, and in training in the use of research techniques for data collection and data analysis (McKernan, 1991). This will equip teachers with skills that will allow them to engage in a rigorous examination of their practices in the light of alternative teaching practices and, accordingly, help them to make informed decisions that could lead to more effective and sustainable change.

Another important area for policy makers to consider is the development of teacher status. According to Hargreaves (1994), reform planners give little attention not only to teachers' affective and cognitive needs, but also to the cultural and socio-economic conditions under which they work. Teachers need to be feel that their work is valued and that they are worthy of respect and trust in order to develop their professional efficacy which in turn will reflect on their achieving, maintaining and improving their effectiveness (Day et al. 2006). Policy makers, therefore, not only need to provide opportunities for teachers to develop professionally, to have a voice and to belong to professional communities, they also need to enhance teachers' economic status through a thorough revision of teachers' salaries, promotion scales and other privileges. This would help teachers to develop pride for their careers and to feel appreciated and, at the same time, could reduce some of the tension that teachers have to deal with on a daily basis.

7.6 Implications for Research in Teacher Professional Development

The literature on teacher professional development clearly reflects a paradigm shift in the field. There is now a common belief that teachers cannot change their teaching practices through traditional methods, i.e. through direct instruction by

outsiders, but need to go through a process that involves them in defining and shaping the problems of their practice (Darling-Hammond, 1997; Lieberman, 1995; Ponte, 2005). This shift has simultaneously influenced the approach to research in the field of teacher professional development. Since teachers will not change if they are told to change then there is a need to identify the most efficient and effective ways that help teachers to go through a process of change; moreover, since teaching, like learning, is a highly complex and individualistic process, any approach that tries to decipher this process needs to account for its complexity and particularity.

Today, there is growing belief that action research, in its different forms, is a method that can help researchers to identify ways for more effective professional development, since it allows for the integration of investigation and development within a research process that takes into account the characteristics of a particular teaching-learning context and that promises rigour and robustness.

However, for action research to arrive at its aspired goals there are certain conditions that need to be present and certain obstacles that need to be overcome. Although these conditions and obstacles have been discussed by researchers in relation to educational contexts in the West (McKernan, 1991; Peters, 2004; Ponte, 2002, 2005; Ponte, Ax, & Beijaard, 2004), they seem to apply in other less democratic contexts, such as in developing countries, but with a need for adjustments in priorities and emphasis.

To start with, since action research is a series of cycles of reflection and action, teachers need to first develop their reflective skills before they can be expected to engage in action. According to Peters (2004) one of the conditions that influence the success of action research is “The development of reflective skills that enabled participants to identify changes in their thinking and practice, and critique their own and others’ practice in the light of explicit theories and beliefs” (p. 552). Providing for this condition seems to be a major challenge in educational systems where teacher reflection seems to be hindered by an “impoverished educational background” and by working within a “structural power of a centralised education authority” (Walker, 1994, p. 67). This could imply that for action research to succeed in such contexts there is a need to

deliberately integrate in the research plan means and methods that would aid teachers to first develop "...simple, non-systemic forms of reflection before they are able to carry out fully fledged action research" (Ponte, 2002, p. 618). This kind of skills development needs to be formulated in the light of the participating teachers' conditions: the social, political and intellectual, and needs to be regarded as a prerequisite for teachers to progress along the reflection-to-research continuum.

The second condition necessary for facilitating action research could be regarded as a crucial result of the first condition discussed above. If teachers are able to develop their reflective skills, this might feed into developing a set of attitudes and beliefs that could act as a driving force that encourages them to move along the reflection-to-research continuum. Teachers need to believe that they can affect change in themselves and that this will eventually lead to change in their classrooms and probably in their bigger contexts: the school and the educational system as a whole. This is another challenging condition to be met, but if teachers are aided to develop their knowledge in relation to their practice and if they experiment and succeed with reflection and action on a small scale, eventually, they will feel more empowered and will become encouraged to identify and address other constraints and dilemmas in their contexts. Therefore, the objective is to help teachers to develop the necessary attitudes that could foster action research, yet the means to develop these attitudes is through engaging in action research. This interplay between objective and means is referred to by Ponte (2002) who also states that "...it is not possible to break down action research into separate 'bits' of knowledge, skills or attitudes, and then 'train' teachers in it one by one: facilitators must let teachers carry out and master action research as an integral whole" (p. 420). The implication here is that researchers need to acknowledge that the complexity of action research is not in the procedural and methodological aspects of carrying out action research, but "...in the fact that teachers (have) to gradually master different actions and skills simultaneously, actions and skills that (are) new to them" (Ponte, 2002, p. 420).

However, in developing countries the most difficult condition to be met for the facilitation of action research is a cultural and political context that is conducive

to teacher professional development of the type discussed above. In a context characterised by “teacher isolation, a school culture that works against raising questions (and) a technical view of knowledge for teaching” (Cochran-Smith & Lytle, 1992, p. 304) teachers cannot be expected to engage in full fledged action research. Such contexts “contribute to a teacher corps, especially in primary schools, unwilling to challenge authority, and a dominant view subscribed to by teachers themselves as well as by the education authority of teachers as technicians” (Walker, 1994, p. 67); the result is a teacher corps that resists engaging in research that demands reflection and action and that diligently abides by implementing the official syllabus. The implication here is that researchers need to realize that the scope of action research in such contexts depends “on the extent to which the cultural and political context leaves scope for teachers’ professional autonomy and professional judgement” (Ponte, 2005, p. 292). Hence, to consider whether a project is ‘good’ action research it needs to be gauged against the political and cultural context in which the research is carried out.

7.7 Limitations

In this study both anticipated and unanticipated factors have contributed to reducing the chance for implementing a complete cycle of action research in the traditional sense, i.e. a cycle that includes all of the phases: reconnaissance, planning, action and evaluation of action.

From the study’s onset, I was aware that teachers are overloaded with the tasks of their daily routines; hence, it was expected that participating teachers were going to be pressured by, and not very welcoming to, any activity that was demanding in terms of time and effort. This expectation from my side made me reluctant to introduce activities that could have proven useful in terms of development, such as asking teachers to read articles, or being more persuasive towards journal writing, or even towards attending group discussions. All of these activities would have proven quite useful especially in relation to the professional needs of the teachers who seem to lack theoretical knowledge related to theories of learning and who have little opportunity for reflection individually and with colleagues.

Another limitation to the progress of the study was the distribution of the participating teachers in three schools. Although this provided me with access to different settings and helped me realize that teachers' perceptions of the reform and the problems that they were facing with implementing the new curriculum were quite general, it also limited the possibility of encouraging a culture of reflection and action in the schools. Commuting from one school to another and trying to divide my time among the three schools left little time to engage in longer discussions with the teachers and in fostering a culture of collegiality and support within each school. Being on site for longer periods of time would have allowed me to build a more supportive relationship with the teachers and would have increased the opportunities of encouraging teachers and other school personnel (such as principals and coordinators) to discuss the needs of teachers in terms of support and resources; this could have led to a more common vision on these issues.

Another area that seems to have influenced the outcomes of the study was approaching it with a belief that what yielded results in other contexts will yield similar results in the Lebanese context. Teachers in this study were inexperienced in terms of reflection and research and were uninformed in terms of theoretical knowledge. Accordingly, it seems that teachers would have benefited from a more structured approach to the study, especially at the initial phases. Hence, a series of workshops on theories of learning or on action research methods and techniques could have proven useful to prepare teachers to engage more influentially in the phases of action research. Teachers seem to be in need of guidelines and structure, as tools for empowerment, before they could make use of research that is underpinned by the principles of democracy and emancipation.

7.8 Implication for Future Research

The above limitations could provide platforms for future research, especially in educational contexts similar to the Lebanese one. For example, future research could examine the means of developing a culture of reflection and action in schools in Lebanon. Of course this kind of culture cannot be forced into existence, or to be bureaucratically imposed, but needs to develop gradually through experimenting and practicing.

Another area of research could be to investigate the effect of including school principals, subject coordinators and local authorities' inspectors, along with teachers, as participants in an action research project. This could provide insight on the relationship between teachers and their superiors and could increase the chances of communication among these groups. Hence, communication could lead to seeing the issues and the problems in the educational system from the point of view of others; this could prove useful to developing a more cohesive team that directs its effort to a common vision.

It would also seem useful to investigate the effect of introducing teachers explicitly to action research and training them in the techniques of action research (such as problem framing, data collecting and data analysis) on the outcomes of engaging in an action research project. This training could provide the necessary skills for teachers to pursue a full fledged action research project and could lead to a kind of professional development that enhances teachers' self-efficacy and feelings of empowerment.

Last but not least, a longitudinal study that examines the methods and the time needed to develop teachers' skills to become reflective practitioners could provide the necessary input for future educational reform in Lebanon. The findings of such a study could set the grounds for a new approach to reform that incorporates the practical needs of the "bottom" and works its way up to feed into the vision of the "top".

7.9 Final Reflections

In retrospect, I realize that my learning during the different stages of this study was affected by my understanding of "what a teacher is" and "what a teacher does" along with my values in relation to education. These informed my process of decision making and decision taking processes at each stage but at the same time they were being shaped and framed by the social and educational context in which the research was taking place.

Although the results of the study are much less than the aspirations that I had at the outset, I still believe that there is a significant role for teachers to play and

that this role can be developed and enhanced through an action research approach to professional development. This is due to the fact that this study allowed me to experience first hand the inadequacy of other fragmented and piecemeal approaches to teacher development and made me realize the importance of empowerment and emancipation for professional development, two areas that action research can help develop.

A final point of reflection is the way that the teachers might have perceived me and how this could have impacted the way they responded during the interviews and their level of involvement in the research. As I mentioned in chapter one, for 15 years, I taught in one of the most prestigious schools in Saida which is a small city and where there is more opportunity for people to know of and about others, especially if they work in the same field. The school that I worked in was owned by Rafic El Hariri (who was then the Prime Minister of Lebanon but was assassinated in February, 2004) and was, and still is, run by Bahia El Hariri, Rafic El Hariri's sister who is a Member of Parliament and Head of the Parliamentary Committee for Education. Through my work in the Hariri school I developed a professional relationship with Bahia El Hariri and took part in many projects that the Hariri Foundation was initiating in the city. The aim of these projects was to engage students in activities such as drama, art and summer camps that would help to develop their sense of citizenship and their belief in themselves and in their country. Taking part in these projects, and being the project manager for a few of them, created opportunity for me to meet with many teachers from different schools and on more than one occasion. These factors might have contributed to the way the teachers perceived me and this might have had an impact on their readiness to take part in the research and on the way that they discussed their work and the new curriculum.

Although, in the initial stages the teachers might have perceived me as someone that is "connected to people in the government", I believe that through the course of the research, the teachers and I developed a professional and a personal relationship which may have been the driving force for many of them to engage in activities such as journal writing and peer observation which were demanding in terms of time and effort. This relationship was achieved through

demonstrating to the teachers that I genuinely wanted to support them and through interacting with them on an egalitarian basis. As a result, many of these teachers are still in contact with me and we still meet to discuss students, teaching and learning. Therefore, it could be concluded that the majority of the participating teachers, who could be regarded as a representative sample of the bigger body of teachers, are ready to learn; however, they need the support, the encouragement and the opportunity to do so. In the present conditions of the Lebanese educational system subject coordinators and local authority inspectors could play a major role in providing teachers with the support and encouragement that they need to develop professionally; this is an area that would be worth investigating in future studies.

I realize that beliefs are not enough to bring about change, but they need to be accompanied by much work in terms of planning, implementation and evaluation. Moreover, I realize that this kind of work needs to be supplemented by conducive social, political and economical factors and it is in this area where my greatest concern for the future of teacher development, in particular, and of education, in general, in Lebanon lies. Although it is widely agreed upon that our hope for a better future is better education, the fear is that other overwhelming factors in terms of economical and political conditions will play a role in undermining this conviction. However, to end with a hopeful note, I will echo the advice that is usually given to teachers: we need to learn to overcome our fears and our doubts and delve into action and reflection or else no change will ever be brought about.

REFERENCES

- Acheson, K.A. and Gall, M.D. (1992) *Techniques in the Clinical Supervision of Teachers*, New York: Longman.
- Adelman, C. (1993) Kurt Lewin and the origins of action research, *Educational Action Research* 1 (1), pp. 7-23.
- Ainscow, M., Booth, T. and Dyson, A. (2006) *Improving Schools, Developing Inclusion*, London: Routledge.
- Allington, R.L. (2005) Crafting state educational policy: the slippery role of educational research and researchers, *Journal of Literacy Research* 31, pp. 457-482.
- Argyris, C. (1980) *Inner Contradictions of Rigorous Research*, London: Academic Press.
- Argyris, C., Putnam, R. and Smith, D. (1985) *Action Science*, San Francisco: Jossey-Bass.
- Argyris, C. and Schon, D. (1974) *Theory in Practice: Increasing Professional Effectiveness*, London: Jossey-Bass. Argyris, C. and Schon, D. (1978) *Organizational Learning: A theory of action perspective*, Reading: Addison-Wesley.
- Ashton, P. T. and Webb, R. B. (1986) *Making a Difference: Teachers' Sense of Efficacy and Student Achievement*, New York: Longman.
- Backman, K. and Kyngas, H. (1999) Challenges of the grounded theory approach to a novice researcher, *Nursing and Health Sciences* 1, pp. 147-153.
- Bateson, G. (1972) *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution and Epistemology*, San Francisco: Chandler.
- Baker, L. and Brown, A.L. (1984) Metacognitive skills and reading. In P.D. Pearson (ed.) *Handbook of Reading Research*, New York: Longman.
- Bandura, A. (1997) *Self-Efficacy: The Exercise of Control*, New York: W.H. Freeman.
- Bandura, A. (1977) *Social Learning Theory*, London: Prentice-Hall.
- Bartolo, P.A., Janik, I., Janikova, V., Hofsass, T., Koinzer, P., Vilkiene, V., Calleja, C., Cefai, C., Chetcuti, D., Ale, P., Mol Lous, A., Wetso, G.M. and Humphrey, N. (2007) *Responding to Student Diversity Teacher's Handbook*, Malta: University of Malta.

- Bertrando, P. (2000) Texts and context: narrative, postmodernism and cybernetics, *Journal of Family Therapy* 22, pp. 83-103.
- Berkey, R., Curtis, T., Minnick, F., Zeitlow, K., Campbell, D. and Kirschner, B. W. (1990) Collaborating for reflective practice: voices of teachers, administrators, and researchers, *Education and Urban Society* 22 (2), pp. 204-232.
- Bogler, R. and Somech, A. (2004) Influence of teacher empowerment on teachers' organizational commitment, professional commitment and organizational citizenship behaviour in schools, *Teaching and Teacher Education* 20 (3), pp. 277-289.
- Borko, H., Elliot, R. and Uchiyama, K. (2002) Professional development: a key to Kentucky's educational reform effort, *Teaching and Teacher Education* 18, pp. 969-987.
- Blanton, L. (2002) Seeing the invisible: situating L2 literacy acquisition in child-teacher interaction, *Journal of Second Language Writing* 11, pp. 295-310.
- Brookfield, S. (1995) *Becoming a Critically Reflective Teacher*, San Francisco: Jossey-Bass.
- Brown, L., Henry, C, Henry, J. and McTaggart, R. (1988) Action research: notes on the national seminar. In S. Kemmis and R. McTaggart (eds) *The Action Research Reader* (3rd Ed), Australia: Deakin University Press.
- Burbank, M. and Kauchak, D. (2000) An alternative model for professional development: investigations into effective collaboration, *Teaching and Teacher Education* 19, pp. 499-514.
- Burrell, G. and Morgan, G. (1985). *Sociological Paradigms and Organisational Analysis : elements of the sociology of corporate life*. Aldershot : Gower.
- Carr, W. and Kemmis, S. (1986) *Becoming Critical: Education, Knowledge and Action Research*, London: Falmer.
- CERD, (1995) *The Educational Reform Plan*, Beirut: CERD.
- CERD, (2006) personal communication.
- Chan, K.W. and Elliot, R.G. (2004) Relational analysis of personal epistemology and conceptions about teaching and learning, *Teaching and Teacher Education* 20, pp. 817-831.
- Chomsky, N. (1986) *Knowledge of Language: Its Nature, Origin, and Use*, New York: Praeger.

- Clark, C.M. and Peterson, P. L. (1986) Teachers' thought process. In M. C. Wittrock (ed) *Handbook of Research on Teaching*, New York: McMillan.
- Cochran-Smith, M. and Lytle, S.L. (1992) Communities for teacher research: fringe or forefront? *American Journal of Education* 100(3), pp. 298-324.
- Cochran-Smith, M. (2002) Reporting on teacher quality: the politics of politics, *Journal of Teacher Education* 53(5), pp. 379-382.
- Cohen, L. and Manion, L. (1980) *Research Methods in Education*, London: Croom Helm.
- Colton, A. B. and Sparks-Langer, G. M. (1993) A conceptual framework to guide the development of teacher reflection and decision making, *Journal of Teacher Education* 44 (1), pp. 45-54.
- Corey, S. (1953) Action research in education, *Journal of Educational Research* 47, pp. 375-380.
- Crotty, M. (1998) *The Foundations of Social Research: Meaning and perspectives in the research process*, London: Sage.
- Darling-Hammond, L. (1990) Instructional policy into practice: "The Power of the Bottom over the Top", *Educational Evaluation and Policy Analysis* 12 (3), pp. 339-347.
- Darling-Hammond, L. (1997) School reform at the crossroads: confronting the central issues of teaching, *Educational Policy* 11 (2), pp. 151-166.
- Darling-Hammond, L. and McLaughlin, M.W. (1995) Policies that support professional development at an era of reform, *Phi Delta Kappan* 76 (8), pp. 597-605.
- Darling-Hammond, L. and Youngs, P. (2002) Defining "highly qualified teachers": what does the "scientifically-based research" actually tell us, *Educational Researcher* 3, pp. 13-25.
- Davies, B. (1996) *Power/ Knowledge/ Desire: Changing School Organization and Management Practices*. Canberra: Department of Employment, Education and Youth Affairs.
- Day, C. (1998) Working with the different selves of teachers: Beyond comfortable collaboration, *Educational Action Research* 6 (2), pp. 255-275.
- Day, C. (1999) *Developing Teachers: The Challenge of Life Long Learning*, London: Falmer.
- Day, C. and Leitch, R. (2001) Reflective processes in action: mapping personal contexts for learning and change,

Day, C., Stobart, G., Sammons, P. and Kington, A. (2006) Variations in the work and lives of teachers: relative and relational effectiveness, *Teachers and Teaching: theory and practice* 12 (2), pp. 169-192.

Dewey, J. (1933) *How We Think: A Restatement of the Relation of Reflective Thinking to the Educative Process*, New York: Prometheus Books (original book published in 1910).

Dickens, L. and Watkins, K. (1999) Action research: rethinking Lewin, *Management Learning* 30(2), pp. 127-140.

Dinkelman, T. (2000) An inquiry into the development of critical reflection in secondary student teachers, *Teaching and Teacher Education* 16, pp. 195-222.

Eagly, A. H. and Chaiken, S. (1993) *The Psychology of Attitudes*, London: Harcourt.

El Amine, A and Bakdash, K. (2002) *Evaluation of the Teacher Training Program Project*, Beirut: The Lebanese Association for Educational Studies.

Elliot, J. (1991) *Action Research for Educational Change*, Buckingham: Open University Press.

Elliot, J. (ed) (1993) *Reconstructing Teacher Education*, London: Falmer Press.

Elliott, J. J. (1993) The relationship between 'understanding' and 'developing' teachers' thinking. In J. J. Elliott (ed) *Reconstructing Teacher Education, Teacher Development*, London: Falmer Press.

Farrell, J. P. (2000) Why is education reform so difficult? Similar descriptions, different prescriptions, failed explanations, *Curriculum Inquiry*, 30(1), pp. 83-103.

Feather, N. T. (1969) Attribution of responsibility and valence of success and failure in relation to initial confidence and task performance, *Journal of Personality and Social Psychology* 13(2), pp. 129-144.

Fenwick, G. (1997) *Sustained Silent Reading in Theory and Practice*, Liverpool: Liverpool John Moores University.

Frank, C. and Rinvoluceri, M. (1991) *Grammar in Action: Awareness Activities for Language Learning*, New York: Prentice Hall.

Frank, M. (1999) Beyond the rhetoric of problem-based learning: emancipatory limits and links with andragogy, *Nurse Education Today* 19(7), pp. 548-555.

- Frankel, R. and Devers, K. (2000) Qualitative research: a consumer's guide, *Educational for Health* 13 (1), pp. 113-123.
- Freire, P. (1972) *Pedagogy of the Oppressed*, New York: Herder and Herder.
- Fullan, M. (2000) The return of large-scale reform, *Journal of Educational Change* 1, pp.5-28.
- Fullan, M. and Hargreaves, A. (eds) (1992) *Teacher Development and Educational Change*, London: Routledge-Falmer.
- Fuller, F. (1969) Concerns of teachers: a developmental conceptualisation, *American Educational Research Journal* 6(2), pp. 207-226.
- Gibbs, G. (1995) *Learning in Teams: A Tutor Guide*, Oxford: The Oxford Centre for Staff Development.
- Glaser, B. G. (1978) *Theoretical Sensitivity: Advances in the Methodology of Grounded Theory*, California: The Sociology Press.
- Glaser, B. G. and Strauss, A. L. (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research*, New York: Aldine de Gruyter.
- Goleman, D. (1995) *Emotional Intelligence*, London: Bantam Books.
- Gore, J. and Zeichner, K. (1991) Action research and reflective teaching in pre-service teacher education: a case study from the United States, *Teaching and Teacher Education* 7(2), pp. 119-136.
- Gough, A. and Sharpley, B. (2005) Toward effective teaching and learning: stories of primary schools' environmental science interest and action, *Educational Action Research* 13 (2), pp.191-212.
- Gravett, S. (2004) Action research and transformative learning in teaching development, *Educational Action Research* 12(2), pp.259-272.
- Gregoire, M. (2003) Is it a challenge or a threat? A dual-process model of teachers' cognition and appraisal during conceptual change, *Educational Psychology Review* 15(2), pp. 147-179.
- Griffiths, V. (2000) The reflective dimension in teacher education, *International Journal of Educational Research* 33, pp. 539-555.
- Grossman, P., Wineburg, S. and Woolworth, S. (2001) Toward a theory of teacher community, *Teachers College Record* 103 (6), pp. 942-1012.
- Haggarty, L. and Postlethwaite, K. (2003) Action research: a strategy for teacher change and school development? *Oxford Review of Education* 29 (4), pp. 423-448.

- Halliday, J. (1998). Technicism, reflective practice and authenticity in teacher education, *Teaching and Teacher Education* 14 (6), pp. 597-605.
- Hargreaves, A. (1989) *Curriculum and Assessment Reform*, Milton Keynes: Open University Press.
- Hargreaves, D. (1994) The new professionalism: the synthesis of professional and institutional development, *Teaching and Teacher Education* 10(4), pp. 423-438.
- Hargreaves, D. (1998) A road to the learning society, *School Leadership and Management* 17(1), pp. 9-21.
- Hargreaves, A. (2000) Editor-in-chief introduction: representing educational change, *Journal of Educational Change* 1, pp. 1-3.
- Hargreaves, A. and Evans, R. (1997) *Beyond Educational Reform: Bringing Teachers Back In*, Buckingham: Open University Press.
- Hashweh, M. Z. (2003) Teacher accommodative change, *Teaching and Teacher Education* 19(4), pp. 421-434.
- Hativa, N. (2000) Teacher thinking, beliefs, and knowledge in higher education: an introduction, *Instructional Science* 28, pp. 331-334.
- Hargreaves, A. and Fullan, M. (1998) *What is Worth Fighting For in Education*, Buckingham: Open University Press.
- Hatton N. and Smith, D. (1994) Reflection in teacher education: towards definition and implementation, 11(1), pp. 33-49.
- Henson R. K. (2001) The effects of participation in teacher research on teacher efficacy, *Teaching and Teacher Education* 17, pp. 819-836.
- Hewson, M.G., Hewson, D. W. and Jensen, N. M. (1989) Reflection in residency training in the general internal medicine clinic. Paper presented at the annual meeting of the American Education Research Association in San Francisco.
- Hill, L. (2004) Changing minds: developmental education for conceptual change, *Journal of Adult Development* 11 (1), pp. 29-40.
- Ho, A. S. P. (2000) A conceptual change approach to staff development: a model for programme design, *The International Journal for Academic Development*, pp. 30-41 (<http://www.tandf.co.uk/journals>).
- Ho, A., Watkins, D. and Kelly, M. (2001) The conceptual change approach to improving teaching and learning: an evaluation of a Hong Kong staff development programme, *Higher Education* 42, pp. 143-169.

Hofer, B. K. and Pintrich, P. R. (1997) Personal epistemology: the psychology of beliefs about knowledge and knowing (electronic resource: <http://www.netlibrary.com/urlapi.asp?action=summary&v=1&bookid=63468>)

Hoffman, L. (1992). A reflexive stance for family therapy. In S. McNamee and K. J. Gergen (eds.) *Therapy as Social Construction*, London: Sage.

Holt-Reynolds, D. (2000) What does the teacher do? Constructivist pedagogies and prospective teachers' beliefs about the role of a teacher, *Teaching and Teacher Education* 16(1), pp. 21-32.

Holton, B. (1987) *Cooperative Learning: An Overview*, Nottingham: University of Nottingham School of Education.

Hopkins, D. and Levin, B. (2000) Government policy and school development, *School Leadership and Management* 20 (1), pp.15-30.

Hopper, P. (1987) Emergent grammar, *Berkley Linguistic Society* 13, pp.139-157.

House, E. R. (1980) *Three perspectives on innovation- the technological, political and cultural*, Washington: National Institute of Education.

Howes, A. (2001) School level action research- creating critical space in school communities, *Improving Schools* 4(2), pp. 43-48.

James, P. (1996) Learning to Reflect: A Story of Empowerment, *Teaching & Teacher Education* 12(1), pp. 81-97.

Jaworski, B. (1998) Mathematics Teacher Research: Process, Practice and the Development of Teaching, *Journal of Mathematics Teacher Education* 1, pp. 3-31.

Jenkinson, M. D. (1973) Ways of teaching. In R.C. Staiger (ed.) *The Teaching of Reading*, Paris: UNESCO.

Johnson, D. and Johnson, R. (1994) *Learning Together and Alone*. 4th ed., Boston: Allyn and Bacon.

Johnson, D. W., Johnson, R. T., and Johnson Holubec E. (1991) *Cooperation in the Classroom*, Edina, MN: Interaction Book Company.

Joyce, B. and Weil, M. (1986) *Models of Teaching*, London: Prentice Hall.

Jurdak, and El Amine, A. (2001) *Student Achievement Project*, Beirut: the Lebanese Association for Educational Studies.

Kelchtermans, G. (2005) Teachers' emotions in educational reform: self-understanding, vulnerable commitment and micro-political literacy, *Teaching and Teacher Education* 21, pp. 995-1006.

Kemmis, M. S. (1981) Action research in retrospect and prospect. In S. Kemmis and R. McTaggart (eds) *The Action Research Reader* (2nd Ed), Australia: Deakin University Press.

Kemmis, M. S. and McTaggart, R. (eds) (1982) *The Action Research Planner*, Australia: Deakin University Press.

Khaniya, T. and Williams, J. H. (2004) Necessary but not sufficient: challenges to (implicit) theories of educational change: reform in Nepal's primary education system, *International Journal of Educational Development* 24, pp. 315–328.

Kim, B. (2001) Social constructivism. In M. Orey (ed.), *Emerging perspectives on learning, teaching, and technology* (electronic resource: <http://www.coe.uga.edu/epltt/SocialConstructivism.htm>).

Knefelkamp, L. L. (1981) Developmental instructions. Unpublished manuscript, University of Maryland.

Kolb, D. A. (1984) *Experiential Learning: Experience as the Source of Learning and Development*, London: Prentice Hall.

Kolmos, A. (2002) Facilitating change to a problem-based model, *The International Journal for Academic Development*, <http://www.tandf.co.uk/journals>

Kosmidou, C. and Usher, R. (1991) Facilitation in action research, *Interchange* 22 (4), pp. 24-40.

Kottkamp, R. B. (1990) Means of facilitating reflection, *Education and Urban Society* 22 (2), pp.182-203.

Korthagen, F. A. J. (1993) Two modes of reflection, *Teaching and Teacher Education* 9 (3), pp. 317-326.

Korthagen, F. and Lagerwef, B. (1996) Reframing the relationship between teacher thinking and teacher behaviour: levels in learning about teaching, *Teaching and Teacher Education* 2(2), pp.162-190.

Kraft, N. (2002) Teacher research as a way to engage in critical reflection: a case study, *Reflective Practice* 3(2), pp. 175-189.

Leiberman, A. (1995) Practices that support teacher development, *Phi Delta Kappan* 76(8), pp.591- 596.

- Leitch, R. and Day, C. (2000) Action research and reflective practice: towards a holistic view, *Educational Action Research* 8(1), pp. 179-193.
- Levin, B. (1995) Using the case method in teacher education: the role of discussion and experience in teachers' thinking about cases, *Teaching and Teacher Education* 11 (1), pp. 63-79.
- Lewin, K. (1948) *Resolving Social Conflict: Selected Papers on Group Dynamics*, G. W. Lewin (ed), New York: Harper and Row.
- Lewin, K. M. and Stuart, J.S.(2003) Insights into the policy and practice of teacher education in low-income countries: the multi-site teacher education project, *British Educational Research Journal* 29(5), pp. 691-707.
- Lincoln, Y. S. and Guba, E.G. (1985) *Naturalistic Inquiry*, London: Sage.
- Liston, D. P. and Zeichner, K. M. (1991) *Teacher Education and the Social Conditions of Schooling*. New York; London: Routledge.
- Little, J.W. (1990) The persistence of privacy: autonomy and initiative in teachers' professional relations, *Teachers College Record* 91(4), pp. 509-536.
- Little, J. W. (1999) Teachers' professional development in the context of secondary school reform: findings from a three-year study of restructuring schools. Paper presented at the annual meeting of the American Educational Research Association, Montreal.
- Lofman, P., Pelkonen, M., Pietila, A.M. (2004) Ethical issues in participatory action research, *Scand J Caring Sci* 18, pp. 333-340.
- Losito, B. Pozzo, G. and Somekh, B. (1998) Exploring the labyrinth of first and second order inquiry in action research, *Educational Action Research* 6 (2), pp. 219-240.
- Louden, W. (1992) Understanding reflection through collaborative research. In A. Hargreaves and M. G. Fullan (eds) *Understanding Teacher Development*, New York: Teachers College Press.
- Maxwell, J. A. (1996) *Qualitative Research Design: An Interpretive Approach*, London: Sage.
- McAlpine, L. and Weston, C. (2000) Reflection: issues related to improving professors' teaching and students' learning, *Instructional Science* 28, pp. 363-385.
- McCormick, R. and James, M. (1988) *Curriculum Evaluation in Schools*, London: Croom Helm.
- McKernan, J. (1991) *Curriculum Action Research: A Handbook of Methods and Resources for the Reflective Practitioner*, London: Kogan Page.

- McLaughlin, M. (1997) Rebuilding teacher professionalism in the United States. In A. Hargreaves and R. Evans (eds) *Beyond Educational Reform: Bringing Teachers Back In*, Buckingham: Open University Press.
- McLaughlin, M. W. and Mitra, D. (2001) Theory-based change and change-based theory: going deeper, going broader, *Journal of Educational Change* 2, pp. 301-323.
- McLaughlin, M. W. and Talbert, J. E. (2001) *Professional Communities and the Work of High School Teaching*, Illinois: University of Chicago Press.
- McNiff, J. (2002) *Action Research: Principles and Practice*, London: Routledge Falmer.
- McTaggart, R. (1991) Principles for participatory action research, *Adult Education Quarterly* 41(3), pp. 168-187.
- Miles, M.B. and Huberman, A. M. (1994) *Qualitative Data Analysis: An Expanded Source Book*, California: Sage.
- Morgan, G. and Smircich, (1980) The case for qualitative research, *Academy of Management Review* 5 (4), pp. 491-500.
- Muijs, D. and Harris, A. (2006) Teacher Led School Improvement: Teacher Leadership in the UK, *Teaching and Teacher Education* 22 (8), pp. 961-972.
- Nias, J. (1998) Why Teachers need their colleagues: A developmental perspective. In A. Hargreaves, A. Leiberman, M. Fullan, and D. Hopkins (eds.) *International Handbook of Educational Change Part II*, Netherlands: Kluwer.
- Noffke, S. (1994) Action research: towards the next generation, *Educational Action Research* 2 (1), pp. 9-21.
- Official Newspaper, (1997) *The Lebanese Official Newspaper*, Beirut: Lebanon Publishing House.
- Orland-Barak, L. (2004) What I have learned from all this? Four years of teaching an action research course: insights of a 'second order', *Educational Action Research* 21(1), pp. 33-57.
- Osei, G. M. (2006) Teachers in Ghana: issues of training, remuneration and effectiveness, *International Journal of Educational Development* 26, pp. 38-51.
- O'Sullivan, O. (2000) Understanding spelling, *Literacy -Oxford* 34 (1), pp. 9
- O'Sullivan, M. C. (2002) Action research and the transfer of reflective approaches to in-service education and training (INSET) for unqualified and

- under qualified primary teachers in Namibia, *Teaching and Teacher Education* 18, pp. 523-539.
- Peters, J. (2004) Teachers engaging in action research: challenging some assumptions, *Educational Action Research* 12 (4), pp. 535-555.
- Peters, M. and Robinson, V. (1984) The origins and status of action research, *The Journal of Applied Behavioural Science* 20(2), pp. 113-124.
- Piaget, J. (1977) *The Development of Thought: Equilibration of Cognitive Structures*, New York: Viking Press (original work published in 1975).
- Piaget, J. (1932) *The Language and Thought of a Child*, London: Routledge.
- Pintrich, P. R., Marx, R. W. and Boyle, R. A. (1993) Beyond cold conceptual change: the role of motivational beliefs and classroom contextual factors in the process of conceptual change, *Review of Educational Research* 63, pp. 167-199.
- Polit, D.F. and Hungler, B.P. (1993) *Essentials of Nursing Research: Methods appraisal, and utilization*, Philadelphia: J.B. Lippincott Co.
- Ponte, P. (2005) A critically constructed concept of action research as a tool for the professional development of teachers, *Journal of In-service Education* 31 (2), pp. 273-295.
- Ponte, P. (2002) How teachers become action researchers and how teacher educators become their facilitators, *Educational Action Research* 10 (3), pp. 399-423.
- Ponte, P., Ax, J. and Beijaard, D. (2004) Don't wait till the cows come home: action research and initial teacher education in three different countries, *Teachers and Teaching* 10(6), pp. 591-621.
- Posner, G. J., Strike, K. A., Hewson, p. W. and Gertzog, W. A. (1982). Accommodation of a scientific conception: toward a theory of conceptual change, *Science Education* 66, pp. 211-227.
- Posser, M. and Trigwell, K (1999) *Understanding Learning and Teaching: The Experience in Higher Education*, Buckingham: Open University Press.
- Prawat, R. S. (1992) Teachers' beliefs about teaching and learning: A constructivist perspective, *American Journal of Education* 100(3), pp. 354-395.
- Pryor, J. (1998) Action research in West African schools: problems and prospects, *International Journal of Educational Development* 18 (3), pp. 219-228.

- Ramsden, P. (1992) *Learning to Teach in Higher Education*, London: Routledge.
- Rangel, E. and Thorpe, S. (2004) Schooling for the future in Mexico: challenges for basic education and human resource development policy, *International Journal of Educational Research* 41, pp. 564–573.
- Ravitch, D. and Vinovskis, M.A. (1995) *Learning from the Past: What History Teaches us about School Reform*, Baltimore: Johns Hopkins University Press.
- Reason, P. (1998) Three approaches to participative inquiry. In N.K. Dezin and Y. S. Lincoln (eds) *Strategies of Qualitative Inquiry*, London: Sage.
- Reason, P. and Rowan, J. (1981) *Human Inquiry: A Sourcebook of New Paradigm Research*, Chichester: Wiley.
- Reed, Y., Davis, H. and Nyabanyaba, T. (2002) Investigating teachers' 'take-up' of reflective practice from an in-service professional development teacher education programme in South Africa, *Educational Action Research* 10 (2), pp. 253-274.
- Riley, K. (2000) Leadership, learning and systemic reform, *Journal of Educational Change* 1, pp. 29-55.
- Rogers, C. (2002) Defining reflection: another look at John Dewey and reflective thinking, *Teachers College Record* 104(4), pp. 842-866.
- Schifter, D. and Simon, M. A. (1992) Assessing teachers' development of constructivist view of mathematics learning, *Teaching and Teacher Education* 8(2), pp. 187-197.
- Schommer, M. (1990) Effects of beliefs about the nature of knowledge on comprehension, *Journal of Educational Psychology* 82(3), pp. 498-504.
- Schommer, M. (1995) Epistemological development and academic performance among secondary students, *Journal of Educational Psychology* 85(3), pp. 406-411.
- Schon, D. (1983) *The Reflective Practitioner: How Professionals Think in Action*, New York: Basic Books.
- Schon, D. A. (1987) *Educating the Reflective Practitioner: Toward a New Design in Teaching and Learning in the Professions*, San Francisco: Jossey-Bass.
- Schunk, D. H. (1996) Goal and self-evaluative influences during children's cognitive skill learning, *American Educational Research Journal* 33, pp. 359-382.

- Scott, S. (2003) Innovative use of teaching repertoire: a study in transfer of complex strategies into classroom practice by novice teachers, *European Journal of Teacher Education* 26(3), pp. 365-377.
- Shkedi, A. (2000) Educating reflective teachers for teaching culturally valued subjects: evaluation of a teacher-training project, *Evaluation and Research in Education* 14(2), pp. 94-110.
- Short, P. M. (1994). Defining teacher empowerment, *Education*, 114 (4), pp. 488-492.
- Shulman, L.S. (1986). Those who understand: Knowledge growth in teaching, *Educational Researcher*, 15 (2), pp. 4-14.
- Shulman, L.S. (1987) Knowledge and teaching: foundations of the new reform, *Harvard Educational Review* 57(1), pp. 1-32.
- Smit, B. (2005) Teachers, local knowledge, and policy implementation: a qualitative policy-practice inquiry, *Education and Urban Society* 37 (3), pp. 292-306.
- Somekh, B. (2006) *Action Research: A methodology for change and development*, Buckingham: Open University Press.
- Somekh, B. and Thaler, M. (1997) Contradictions of management theory, organisational cultures and the self, *Educational Action Research* 5 (1), pp. 141-160.
- Sparks- Langer, G., Simmons, J., Pasch, M., Colton, A. and Starko, A. (1990) Reflective pedagogical thinking: how can we promote it and measure it?, *Journal of Teacher Education* 41 (4), pp. 23-32.
- Sparks-Langer, G. and Colton, A. (1991) Synthesis of research on teachers' reflective thinking, *Educational Leadership* March, pp. 37-44.
- Stahl, S. A. and Fairbanks, M. M. (1986) The effect of vocabulary instruction: a model-based meta-analysis, *Review of Educational Research* 56 (1), pp. 72-110.
- Stenhouse, L. (1975) *An Introduction to Curriculum Research and Development*, London: Heineman Education.
- Stone, E. (1994) Reform in teacher education: the power and pedagogy, *Journal of Teacher Education* 45 (4), pp. 310-318.
- Strike, K. A. and Posner, G. J. (1992) A revisionist theory of conceptual change. In R. A. Duschl and R. J. Hamilton (eds) *Philosophy or Science, Cognitive Psychology and Educational Theory and Practice*, Albany: State University of New York Press.

- Stuart, J. and Kunje, D. (1998) Action research in developing African education systems: is the glass half full of half empty?, *Educational Action Research* 6 (3), pp. 377-393.
- Stuart, J., Morojele, M. and Lefoka, D. (1997) Improving our practice: collaborative classroom action research in Lesotho. In M. Crossely and G. Vulliamy (eds) *Qualitative Educational Research in Developing Countries*, London: Garland.
- Tigchelaar, A. and Korthagen, F. (2004) Deeping the exchange of student teaching experiences: implications for the pedagogy of teacher education of recent insights into teacher behaviour, *Teaching and Teacher Education* 20, pp. 665-679.
- Tillema, H. H. (1994) Training and professional expertise: bridging the gap between new information and pre-existing beliefs of teachers, *Teaching and Teacher Education* 10 (6), pp. 601-615.
- Tillema, H. H. (1995) Changing the professional knowledge and beliefs of teachers: a training study, *Learning and Instruction* 5(4), pp. 291-318.
- Tillema, H. H. (1998) Design and validity of a portfolio instrument for professional training, *Studies in Educational Evaluation* 24(3), pp. 263-278.
- Tillema, H. H. (2000) Belief change towards self-directed learning in student teachers: Immersion in practice of reflection-on-action, *Teaching and Teacher Education* 16, pp. 575-591.
- Torrance, H. and Pryor, J. (2001) Developing formative assessment in the classroom: using action research to explore and modify theory, *British Educational Research Journal* 27(5), pp. 615-631.
- Trigwell, K. and Prosser, M. (1999) *Understanding learning and teaching: the experience in higher education*, Buckingham: Open University Press.
- Tyack, D. and Cuban, L. (1995) *Tinkering toward Utopia: A Century of Public Reform*, Massachusetts: Harvard University Press.
- Valli, L. (2000) Connecting teacher development and school improvement: ironic consequences of a pre-service action research course, *Teaching and Teacher Education* 16, pp. 715-730.
- Valverde, L. (1982) The self-evolving supervisor. In T. Sergiovanni (ed) *Supervision of Teaching*, Alexandria: Association for Supervision and Curriculum Development.
- Van Manen, M. (1977) Linking ways of knowing with ways of being practical, *Curriculum Inquiry* 6, pp. 205-228.

- Van Manen, M.(1995) On the epistemology of reflective practice, *Teachers and Teaching: theory and practice* 1(1), pp. 33-50.
- Van Veen, K., Slegers, P. (2006) How does it feel? Teachers' emotions in the context of change, *Journal of Curriculum Studies* 38(1), pp. 85-111.
- Vygotsky, L. (1934/1978) *Mind in Society: The Development of Higher Psychological Processes*, Massachusetts: Harvard University Press.
- Walker, M. (1994). Professional development through action research in township primary schools in South Africa, *International Journal of Educational Development* 14 (1), pp.65-73.
- Westheimer, J. (1998) *Among School Teachers: Community, Autonomy and Ideology in Teachers' Work*, New York: Teachers College Press.
- Wijesundera, S. (2002) School improvement: an action-based case study conducted in a disadvantaged school in Sri Lanka, *Educational Action Research* 10(2), pp. 169-187.
- Wood, E. and Bennett, N. (2000) Changing theories, changing practice: exploring early childhood teachers' professional learning, *Teaching and Teacher Education* 16, pp. 635-647.
- Woodhead, C. (1995). Education- The illusive engagement and the continuing frustration, *Times Educational Supplement* 1st Annual Lecture to HM Chief Inspectors.
- Woolfolk, R. L. (1993) Hermeneutics, social constructionism and other items of intellectual fashion: intimations for clinical science, *Behaviour Therapy* 23(2),pp. 213-233.
- Zeichner, M. K. and Liston, D.P. (1987) Teaching student teachers to reflect, *Harvard Educational Review* 57(1), pp. 23-48.
- Zeichner, M. K. and Liston, D.P. (1991) Traditions of reform in US teacher education, *Journal of Teacher Education* 41(2), pp. 3-20.
- Zeichner, K. (1987). Preparing reflective teachers: An overview of instructional strategies which have been employed in pre-service teacher education, *International Journal of Educational Research* 11 (5), pp. 565-575.
- Zeni, J. (1998) A guide to ethical issues and action research, *Educational Action Research* 6 (1), pp. 9-19.

APPENDIX A
SUMMARY OF DATA COLLECTED

SUMMARY OF DATA COLLECTED

School/ Phase	School (A)	No./ School	School (B)	No./ School	School (C)	No./ School
	<i>teachers</i>	2	<i>teachers</i>	4	<i>teachers</i>	6
Phase 1	Interview	2	Interview	4	Interview	6
Phase 2	Interview after observation	2	Interview after observation	4	Interview after observation	6
Phase 3	Meeting write-up	1	Meeting write-up		Meeting write-up	
Phase 4	Interview while watching video	2	Interview while watching video	4	Interview while watching video	6
Phase 5	Written Reflections	2	Written Reflections	4	—	
Phase 6	—		—		Feedback after peer observation	3
Total	<i>Interviews</i>	6	<i>Interviews</i>	12	<i>Interviews</i>	18
	<i>Written Reflections</i>	2	<i>Written Reflections</i>	4	<i>Feedback sessions</i>	3
	<i>Meeting write-up (common to all schools)</i>	1				

APPENDIX B

LIST OF INTERVIEWS/ FEEDBACK SESSIONS/ TEACHERS' WRITTEN REFLECTIONS

LIST OF INTERVIEWS/ FEEDBACK SESSIONS/ WRITTEN REFLECTIONS

Number- MP3/ Cassette No. / Journal No.	Duration in minutes	Teacher's Name	School Name/ Code
1- 19	24:34	Rudayna	A مدرسة الشهيد
2- 18/20	6:21/ 29:39	Munifa	A مدرسة الشهيد
3- 22	20:11	Safa	C البهاء
4- 23	20:53	Noura	C البهاء
5- 24	30:16	Bahia	B الإصلاح
6- 25	24:24	Amal	B الإصلاح
7- 26	22:26	Tagreed	C البهاء
8- 27	23:09	Mona	C البهاء
9- 28	21:00	Samira A	B الإصلاح
10- 29	33:27	Samira B	B الإصلاح
11- 30	19:25	Hiba	C البهاء
12- 31	19:25	Sereen	C البهاء
13- 32	20:37	Nesreen	B الإصلاح
14- 38 A/ Observ.	12:50	Tagreed	C البهاء
15- 39 A/Observ.	16:56	Mona	C البهاء
16- 40 A/Observ.	03:54	Nesreen	B الإصلاح
17- 41 A/ Observ.	11:05	Munifa	A مدرسة الشهيد
18- 42 A/Observ.	04:38	Bahia	B الإصلاح
19- 43 A/Observ.	14:35	Bahia (cont.)	B الإصلاح
20- 44 A/ Observ.	11:13	Rudayna	A مدرسة الشهيد
21- 45 A/Observ.	06:16	Amal	B الإصلاح
22- 46 A/Observ.	12:57	Sereen	C البهاء
23- 47 A/ Observ.	05:53	Noura	C البهاء
24- 48 A/Observ.	07:24	Hiba	C البهاء
25- 50 D/ Video	27:11	Noura	C البهاء
26- 51 D/ Video	19:42	Tagreed	C البهاء
27- 52 D/ Video	08:49	Nesreen	B الإصلاح
28- 53 D/Video	20:03	Samira B	B الإصلاح
29- 54 D/Video	18:11	Safa	C البهاء
30- 55 D/Video	20:03	Hiba	C البهاء
31- 56 D/ Video	15:09	Mona	C البهاء
32- 57 D/Video	23:10	Amal	B الإصلاح
33- 58 D/Video	19:12	Sereen	C البهاء
34- 59 D/Video	16:22	Rudayna	A مدرسة الشهيد
35- 60 D/Video	21:30	Dolli	B الإصلاح
36- Peer Observ.-1	28	Hiba(A) and Sereen(B)	C البهاء
37-Peer Observ. -2	25	Tagreed(A) and Safa(B)	C البهاء
38- Peer observ. -3	26	Mona(A) and	C البهاء

		Noura(B)	
39- Written Refl. 1	-	Bahia	الاصلاح B
40- Written Refl 2	-	Samira B	الاصلاح B
41- Written Refl 3	-	Samira A	الاصلاح B
42- Written Refl 4	-	Amal	الاصلاح B
43- Written Refl. 5	-	Fatima	مدرسة الشهيد A
44- Written Refl. 6	-	Munifa	مدرسة الشهيد A

APPENDIX C
CODES AND THEMES

CODES AND THEMES

Descriptive Codes	Interpretive Codes	Themes
<ul style="list-style-type: none"> 1- Group work 2- Grammar 3- Dictation 4- Vocabulary 5- Silent Reading 6- Fun/ Interesting 7- Wider exposure 8- Student involvement 9- Extensive curriculum 	<p style="text-align: center;">Teacher Perception of New Curriculum</p>	<p>Teachers as Learners</p>
<ul style="list-style-type: none"> 10- Length of workshops 11- Aspects learnt 12- Areas that still need more training 13- Difficulties in implementation 	<p style="text-align: center;">Training Workshops</p>	
<ul style="list-style-type: none"> 14- Technical reflection (VM) 15- Practical reflection 16- Critical reflection 17- Cosmetic reflection 18- Routine reflection 19- Technical reflection (ZL) 20- Dialogue reflection 	<p style="text-align: center;">Teacher Reflection</p>	

<p>21- lack of self-esteem 22- Lack of theoretical background 23- Blaming others</p>	<p>Personal Factors that Impede Reflection</p>	
<p>24- Evaluative remarks 25- Feeling unsafe</p>	<p>Role of the Inspector, coordinator, & Principle</p>	<p>Social and Professional Contexts</p>
<p>26- Lack of Resources 27- Lack of opportunity for peer discussions 28- Lack of time and means for to search for innovations in pedagogy</p>	<p>Opportunities and Means for Professional Development</p>	
<p>29- Lack of basic skills 30- Lack of parental support 31- Impact of socio-economical background</p>	<p>Student Attributes</p>	

APPENDIX D
SAMPLE SUMMARY SHEET

Summary Sheet

Type: Interviews

Date: October 2004

Number of teachers: 12

Site: Schools A, B, C

1- Main issues and theme:

- Some teachers were more ready to talk than others; the confidentiality issue seemed quite important.
- There seems to be tensions between coordinators and inspectors on the one side and the teachers on the other.
- Teachers' responses lack real reflection; many blamed the system for the lack of implementation of new curriculum.
- No indication of learning theories and their influence on the new approach.

2- Summary of information on target questions:

- Teachers seemed to see the new curriculum as a burden, but at the same time they seem to be impressed by certain aspects: interesting, fun, more student involvement etc.
- The first set of interviews did not show reflection in teachers' responses. Responses were mainly to explain why they can not implement things like spelling, silent reading, group work etc.

3- Targets for next step:

- Need to design activities that would foster reflection.
- Need to try to find out how far teachers link their practices to learning theories.
- Need to provide the opportunity for teachers to realize their implicit theories!!!

4- General comments and notes:

Very little reflection when analysed according to Van Manen's hierarchy. There must be something in the literature that refers to what the teachers were engaged in: Blaming, not taking responsibility, being some how defensive!!!

APPENDIX E

SAMPLE ANALYTICAL MEMOS

SAMPLE ANALYTICAL MEMOS

October 28th, 2004

After listening to the first set of interviews it seems that teachers have a common concern: how is possible NOT to teach dictation and NOT ask students to read aloud in class. This could be an indication of teachers' beliefs in relation to learning. They seem to be finding it unwise or ineffective to teach without "memorization". This seems to be an influence of the traditional way to teaching that most teachers still believe in.

Dictation: Students are asked to memorize the way words are written as opposed to learning or understanding the spelling rules that decide how a word is to be written.

Reading aloud: Teachers usually ask one student to read a passage aloud and then another to read it again and so on, until every student has had a chance to read. According to the teachers the inspectors and coordinators have made it explicit that this procedure is to be avoided in classes because it is boring and ineffective. Teachers also seem to adhere to this practice because they think it is the best way to teach students to read. This could be another demonstration of how teachers still believe that memorization is important for learning; by repeating the reading passage over and over students will memorize it and maybe not need to learn phonetic skills.

Of course there will always be a need for memorization; however, there are also other ways for learning which could be more interesting and more effective. The point here is that are teachers aware that for students to learn there are alternative strategies and techniques to engage students in rehearsing new concepts or new knowledge? Do teachers realise how boring it is just to repeat the same thing over and over? Do they really think about whether their students are enjoying learning or is it just not a major concern for them?

Another issue that has surfaced is teacher reflection. Teachers have been expressing their concern about the "abolition" of dictation and reading aloud. Could this be considered as technical reflection? But they also express that they do not think students will learn how to read and write without these exercises, so they are also considering the effect of their practices on student learning; hence, there is also practical reflection. However; they are only considering one aspect of students: the cognitive, with no reference to the emotional or social aspects. Is this because this is how they define their role as teachers: teach them to read and to write (the rest of the student is not our problem!!).

APPENDIX F

SAMPLE TRANSCRIPT WITH PRELIMINARY CODING

INTERVIEW (1)

Monday September 20, 2004

Reference: MP3-19

Rudayna – El Shaheed Marouf Saad Intermediate School (SMSIS)

Rudayna is the second grade English teacher at the SMSIS. She teaches English to 3 sections.

T: here we are applying the new curriculum.. it is going on very well with the students...but the difference is that here it takes a lot of time and not everything you can apply a hundred percent...I mean for example, if we wanted to do group work, let us say in reading, I get very tired, I divide the paragraphs among the groups... each group has to read one paragraph, then we have to coordinate.. you have to tell the others what you read... it is very difficult ... **GROUP WORK**

They first draw the pictures in their copy books and write the words and then when I need to enter a grade in my marking book, I see if they have learnt the words; I give them a worksheet with the pictures and ask them to write the words. This I do later, I first start with missing letters, the first letter and the last letter... **VOCABULARY / MEMORIZATION/GRADES**

...like grammar there is no grammar... how can a student write if he does not know the basic things in grammar ... like this is the way we write this sentence...they should at least know the helping verbs...when to add “s” to the verb ... subject verb agreement... this is a singular verb it takes “s” and this is a plural verb it does not ... this is a pronoun...you need to focus on the pronouns and they (the new curriculum) does not...teachers of the higher grades are finding difficulties with their students because they do not know grammatical rules...for example they cannot use pronouns properly... they do not know how to... I emphasize grammar to be honest... I think it is very important; I photocopy grammar exercises from the old books and we do them together in the classroom... I find that very important. **GRAMMAR**

...no ... I really do not think I need any more workshops, I really feel that I have understood the new curriculum and I do not need any more workshops. **WORKSHOPS**

...I try not to think about what the inspector says when she comes to my class ...I work the way I see best... I feel that my students learn well and their English is very good...I see the way they interact with me and I am happy...the old way is very important with our students...**INSPECTOR/ OLD CURRICULUM +**

... I sometimes try to make some activities for the students... Likegiving them words with missing letters or how they say....um....um...what is the word for it.....umm.....we give them a word with the letters scrambled and they have to rearrange the letters... but I do not feel that is enough; once a week I give them dictation to study at home.. **DICTATION/ MEMORIZATION/ ACTIVITIES**

.... I might integrate both methods.. I have been teaching for a long time.. I started teaching when I was 17 years old... I graduated from the American school in Saida and they employed me right away... and then I went to university... actually I have not stopped teaching... **TEACHING EXPERIENCE**

... we should get posters, for our classes.... We cannot keep making these unattractive ones... I have no skill in drawing... what should I do... I know that some teachers ask the Art teacher to help them, but I do not want to do that... how many times can I ask her to help me ...once, twice then she will get fed up ...it the school's responsibility... they have to get us posters and large pictures and anything that would make the students pay more attention... **RESOURCES/ PEER RELATIONSHIPS**

The new curriculum is very long... some teachers say that the teachers' guide has many activities in it... I know that students enjoy activities, but how will I finish all that the inspector and the school principle expect me to finish and have activities in my class too... we either play or we learn... **NEW CURRICULUM - / INSPECTOR/ MISCONCEPTIONS**

... the new curriculum has some negative aspects and some positive aspects, but it all depends on the type of students that you have... I have taught in a private school... the difference is that there...umm... everything is provided for ... whatever you need from visual aids you find available and the students are different... Because the parents are different... **RESOURCES/ PRIVATE vs PUBLIC/ STUDENTS/ PARENTS**

...in the writing class...I write the topic on the board and I stick a poster on the board, then they will write from the poster.. then we work on vocabulary... they will give me words and we will make a web on the board... but for them to give vocabulary in a group it is very difficult so what I do is: they give me the words and I work with them to choose the related words; then I ask them to use the words in sentences related to the poster then we collect the sentences that are related to each other... with this method I had to put a lot of effort until the end of the year then they were able to write a paragraph and then they were able to write according to the topic ... but it was very tiring for me I put a lot of effort until we could get to this **WRITING/ NEW METHOD**

yes... these days we do not have a student that is stupid... there isn't....I always say there isn't a stupid student ...he might use his intelligence in other ways for example in mischief but that does not mean that he is stupid... all this new generation is intelligent because if you see them in the other classes ...for example in the PE class or in the Art class might be doing wellthere isn't a stupid student but there are students that do not want to learn... **STUDENTS' ATTRIBUTES**

APPENDIX G

FLOW CHART OF THE COGNITIVE–AFFECTIVE MODEL OF CONCEPTUAL CHANGE (Gregoire, 2003)

