Dealing with Curriculum Change

How teachers perceive recent curriculum changes and the strategies they employ to cope with such change

Michelle Cresdee

Murdoch University, Western Australia

December 2002
I declare that this thesis is my own account of my research and contains as its main content work that has not previously been submitted for a degree at any other tertiary education institution.

Michelle Cresdee
PREFACE

My interest in this topic grew from what I had experienced working in a very ‘traditional’ country school which chose to ignore the implementation of the Curriculum Framework, assuming the changes would ‘go away’. As a new teacher, ready for a challenge, I found this attitude extremely frustrating. This experience was juxtaposed with a move to a new and ‘innovative’ school where change was a normal part of teaching, where teachers were encouraged and supported in taking on change with the aim of improving the quality of education for students. This process of talking to teachers of different backgrounds and experiences has widened my perspective as to the motives and viewpoint of those less enthusiastic about change.
ACKNOWLEDGEMENTS

First and foremost my thanks goes to all those in the ‘Woodlands’ district involved in the study. My deepest gratitude is extended to the teachers and principals who welcomed me into their schools, allowing me to be stimulated by a group of exceptional teachers.

Thanks also to all the wonderful staff at my own school who have supported and encouraged me throughout the course of this research. Your approach to teaching has been an inspiration to me.

To my supervisor, Lucy Jarzabkowski, thank you for always being happy to hear from me, for always having an encouraging word for me, and for recognising that I would put enough pressure on myself to do my very best.

Thanks to my friend, Melanie Arundale, who has provided valuable advice and invaluable periods of relaxation over the course of this study.

Finally, but most importantly, thank you to my husband, Shane, who has shown more patience and support over the past year than I thought possible from one mere mortal. Thank you for helping me to keep everything in perspective.
CONTENTS

List of Figures ................................................................. viii
List of Tables ................................................................. ix
Abstract ........................................................................... x

Chapter 1: Introduction ..................................................... 1
  1.1 Introduction ................................................................. 1
  1.2 Statement of the Issue .................................................. 1
  1.3 The Significance of the Issue ......................................... 2
  1.4 Background to the Study ............................................. 3
  1.5 The Research Questions ............................................. 6
  1.6 Limitations and Delimitations of the Study ..................... 6
  1.7 Organisation of the Thesis ......................................... 7

Chapter 2: Review of Literature .......................................... 8
  2.1 Introduction ................................................................. 8
  2.2 Curriculum Change and Educational Reform .................. 8
    2.2.1 Nature of Change .................................................... 8
    2.2.2 Curriculum Change in Australia ............................... 9
  2.3 Teacher Perceptions and Responses to Change ............... 12
    2.3.1 Teacher Characteristics ........................................ 12
    2.3.2 Teacher Responses to Change ................................. 13
  2.4 Supporting Curriculum Change ................................... 16
    2.4.1 Fostering Curriculum Change ................................. 16
    2.4.2 Professional Development ..................................... 20
  2.5 Conceptual Model ...................................................... 27
  2.6 Conclusion .................................................................... 28
# Chapter 3: Methodology

3.1 Introduction........................................................................... 29

3.2 Mixed Mode of Study............................................................... 29

3.3 Population............................................................................. 30

3.3.1 Target Population............................................................... 30
3.3.2 Defined Population............................................................. 31
3.3.3 Sampling Frame................................................................. 32

3.4 Phase One: The Interviews..................................................... 32

3.4.1 Negotiating Access to the District......................................... 32
3.4.2 Networking: Curriculum Improvement Manager................... 33
3.4.3 Negotiating Access to the Schools......................................... 35
3.4.4 Interview Schedule............................................................ 38
3.4.5 Interview Process............................................................... 38

3.5 Phase One: Analysis of the Interviews.................................... 41

3.5.1 Content Analysis of the Interviews........................................ 41
3.5.2 Document Analysis............................................................ 48

3.6 Phase Two: The Questionnaires............................................ 49

3.6.1 The Sample........................................................................ 49
3.6.2 Questionnaire Development............................................... 50
3.6.3 Questionnaire Distribution................................................ 53

3.7 Ethical Considerations......................................................... 54

3.8 Conclusion............................................................................. 54

# Chapter Four: Results............................................................. 55

4.1 Introduction........................................................................... 55

4.2 Quality of the Data............................................................... 56

4.2.1 Coding and Data Entry....................................................... 56
4.2.2 Reliability and Validity....................................................... 59

4.3 Questionnaire Results.......................................................... 60

4.3.1 Sectors Influencing Major Curriculum Change.................... 60
LIST OF FIGURES

Figure 1  Conditions fostering the implementation of large-scale innovation programs ..........................................................19
Figure 2  Model of factors impacting on curriculum change ...................... 27
Figure 3  Major themes that emerged from the interviews .....................41
Figure 4  Sectors introducing major curriculum change (Combined data).60
Figure 5  Attitude towards curriculum change (Combined data)..............63
Figure 6  Extent of taking on change (Combined data) ..........................65
Figure 7  Confidence in attempting new initiatives (Combined data) .......67
Figure 8  Success with previous initiatives (Combined data) ..................68
Figure 9  Level of confidence compared with level of success ................69
Figure 10 Attitude towards change compared with extent of change ........69
Figure 11 Types of support accessed by teachers (Combined data) ..........73
Figure 12 Levels of usefulness for different means of support
(Combined data) ........................................................................78
Figure 13 Perceptions of action research (Combined Data) ....................81
Figure 14 Factors impeding curriculum change (Combined Data) ..........84
Figure 15 Revised model of factors impacting on curriculum change ......92
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Summary of schools participating in interview phase</td>
<td>36</td>
</tr>
<tr>
<td>Table 2</td>
<td>Interview participants profile</td>
<td>39</td>
</tr>
<tr>
<td>Table 3</td>
<td>Summary of schools selected for questionnaire phase</td>
<td>49</td>
</tr>
<tr>
<td>Table 4</td>
<td>Current school context- innovative versus non-innovative schools</td>
<td>57</td>
</tr>
<tr>
<td>Table 5</td>
<td>Sectors introducing major curriculum change</td>
<td>61</td>
</tr>
<tr>
<td>Table 6</td>
<td>Attitudes towards curriculum change</td>
<td>64</td>
</tr>
<tr>
<td>Table 7</td>
<td>Extent of taking on curriculum change</td>
<td>66</td>
</tr>
<tr>
<td>Table 8</td>
<td>Confidence in attempting new initiatives</td>
<td>70</td>
</tr>
<tr>
<td>Table 9</td>
<td>Success with previous initiatives</td>
<td>72</td>
</tr>
<tr>
<td>Table 10</td>
<td>Types of support accessed by categories</td>
<td>75</td>
</tr>
<tr>
<td>Table 11</td>
<td>Level of usefulness for different types of support (mean and standard deviation)</td>
<td>79</td>
</tr>
<tr>
<td>Table 12</td>
<td>Attitudes towards action research</td>
<td>82</td>
</tr>
<tr>
<td>Table 13</td>
<td>Impediments to curriculum change</td>
<td>85</td>
</tr>
</tbody>
</table>
ABSTRACT

The current study attempted to identify conditions that affect the manner in which Western Australian primary school teachers perceive recent curriculum changes; the types of support they access; and the relative usefulness of this support. Based on preliminary findings in the first phase of this study and the research literature it was expected that teacher self-efficacy, teacher characteristics such as age and years of teaching, and school context such as the level of ‘innovativeness’ would prove to be influential in the process of implementing new initiatives. A model expressing the relationships between these concepts was developed and evaluated in the second phase of this study. This study is important for two reasons. It focused on Western Australian primary school teachers, whereas most previous research focused on high school teachers, and it explored ways to help teachers deal with future changes instead of simply identifying their responses to changes. It is therefore hoped that the education system will be more informed and better able to provide appropriate support for teachers when faced with future reforms.

The study was conducted in two parts. The purpose of phase one was to become familiar with the current circumstances of teachers in relation to curriculum change. By focusing on the attitudes and behaviours of teachers from ‘innovative’ schools it was thought more could be learned than in schools that maintain the status quo. Qualitative methods of semi-structured interviews, informal observations and the analysis of websites and school documents were utilised throughout this phase. The second phase of the study employed a quantitative approach, based on the findings of the first phase, specifically a process of questionnaire construction and distribution throughout the defined population.
A number of cautious conclusions have been made within the limits of this study. Firstly, the most useful type of professional development for teachers involves teachers interacting with each other. Teachers need time to discuss issues and share their successes. However, Action Research as a means of professional development is currently under utilised. It was discovered that most teachers were positive towards curriculum change, yet an overwhelming workload has proved a formidable barrier to new initiatives. In addition, most teachers will modify initiatives to meet the needs of their students and to fit in with their existing orientations. Consequently, school structures need to become more flexible to encourage teachers to engage in innovative practices. Interestingly, the self-efficacy of a teacher influences the way they perceive and cope with curriculum change, however teacher characteristics, such as age and the number of years teaching, did not yield substantially different results when teachers were categorised along these dimensions. School context, as defined by the level of ‘innovativeness’, did produce differential results in terms of teacher attitudes and responses to curriculum change, and the type of professional development accessed. Finally, schools may need to involve parents and the wider school community in the school level decision-making processes if they truly are to become ‘learning communities’.
CHAPTER ONE: INTRODUCTION

1.1 Introduction
In an attempt to improve education, policymakers around the world have introduced a relentless myriad of reforms to every aspect of the teaching and learning process. These initiatives have more often than not resulted in very little lasting educational improvement. The real impact it would seem has been felt by teachers who are expected to take up these curriculum challenges. How teachers perceive these changes and respond to the initiatives has direct implications for the fate of the reforms and ultimately the quality of education afforded students. In the hope of facilitating real educational change, the focus in recent times has moved towards gaining a greater understanding of how teachers perceive curriculum change, the teaching context in which they operate, and the most effective way of supporting them.

1.2 Statement of the Issue
The intention of the current study is to facilitate real educational improvement by contributing to the understanding of these issues. Specifically, this study aims to:

1. Investigate how specific teacher characteristics and school context influence teachers’ perceptions of recent curriculum changes.

2. Investigate how specific teacher characteristics and school context influence the type of support accessed and the type of support considered most useful.

The definition of ‘curriculum change’ employed here, was constructed based on interview responses in the first phase of this study and literature in the field of curriculum research: “Changes to the content presented, skills developed and the teaching and learning strategies implemented by teachers in their classroom.”
1.3 The Significance of the Issue

The purpose of this study is to determine how primary school teachers in a specific Western Australian education district perceive recent curriculum changes; the types of support they access; and the relative usefulness of this support. It was predicted each of these areas would be influenced by teacher characteristics and current school context. This study is important for two reasons. It focuses on Western Australian primary school teachers, whereas most previous research focused on high school teachers, and it looks at ways to help teachers deal with future changes instead of simply identifying their responses to changes. In this way the system will be more informed and better able to provide appropriate support when faced with future reforms. Previous means of managing change are no longer appropriate in this volatile world (Fullan, 1999).

Researchers in the education field have identified teacher characteristics that affect teacher responses to change, from teacher age and sex, the number of years they have been teaching, and educational background, to specific features of their school context. While most studies of this nature have been inconclusive, some researchers claim various characteristics are better predictors than others. In the same way, as traditional methods of ‘in-servicing’ teachers have become notoriously ineffective in terms of their long term impact, researchers have invested a great deal of energy into identifying more successful types of professional development activities to help teachers cope with ongoing curriculum change. Again, while no definitive answers have been reached some general guidelines for effective support have been proposed. The goal of this study is to bring together these fields of inquiry.
The teacher characteristics under investigation include teacher age and the number of years teaching. In addition, by looking at the relationship between previous success and current levels of confidence in implementing new initiatives, an argument will be made for the influence of teacher self-efficacy on responses to change. Similarly, school context in regards to the level of perceived ‘innovativeness’ will be examined in terms of teacher perceptions and responses to change. A growing body of literature supports this concept of ‘innovative’ schools. While other studies have delved into these areas, this study attempts to look at a rarely investigated group of individuals, Western Australian primary school teachers. Over the past few years this group of teachers has been faced with the implementation of the ‘Curriculum Framework’. This document encompasses issues of teaching and learning principles and the introduction of overarching learning outcomes. This challenging reform is in various stages of implementation throughout Western Australian schools. By identifying the relative significance of these characteristics on teacher perceptions and responses to change, and clarifying the type of professional development considered most useful by teachers, those responsible for educational reform can make more informed decisions and better support those accountable for implementing those changes.

1.4 Background to the Study

Sources of major curriculum change

Curriculum change can be introduced from various sources, including individual teachers, team or block collaboration, whole school planning, the principal and administration team, parents and the school council, the district education office, and importantly, the Education Department of Western Australia. Some sources are far more effective in their attempt to introduce change than others.
Existing Teacher Perceptions, Attitudes and Behaviours

It is expected that teacher perceptions of change and how they respond to these changes will be influenced by specific factors; teacher characteristics, teacher self-efficacy, and school context. Teacher characteristics such as age and the number of years teaching are expected to influence teacher perceptions and the type of support employed by teachers to cope with reform. Older teachers are expected to be less receptive to change (e.g. Marker & Mehlinger, 1992). The more years teaching the less receptive teachers will be to change (e.g. Huberman, 1989, cited in Datnow, 2000; Fullan, 1991; Marker & Mehlinger, 1992). ‘Self efficacy’ theory states the extent to which a person believes they can accomplish a goal is related to “the effort expenditure and the level of accomplishment of that person” (Bandura 1977, 1982, cited in Landy, 1989, p411). Therefore it is expected teacher attitudes towards curriculum changes will depend on the self-efficacy of the individual teacher. Those who have experienced a high level of success with past changes will have greater confidence in applying new reforms than those who have had little or no success previously (Fullan, 1991; Cavanagh and Dellar, 2001) It is expected the more negatively teachers feel towards ‘changes’ the less they will implement these innovations, and further, the less they will undertake professional development activities. In addition, Fullan (1991) suggests that the culture of a school or school context, “can shape an individual’s psychological state for better or for worse” (p77), making them more or less ‘change-oriented’. It is expected that teachers in more ‘innovative’ schools will be more enthusiastic towards change. In addition, it is expected that teachers in ‘innovative’ schools will collaborate more and are more actively involved in curriculum decision-making at a school level (Geijsel et al. 2001).
Impediments to change

There are factors that impede the efforts of teachers to deal with curriculum change, such as school organisation; teacher workload; level of funding for professional development; amount of professional development in specific areas; amount of school resources; time available to attend professional development; class size and/or class composition; personal understanding of the changes; and personal motivation to implement changes. Some of these barriers are more influential than others and may appear at different times throughout the implementation process. Fullan (1991) suggests that the implementation process consists of “putting into practice an idea, program, or set of activities and structures new to the people attempting or expecting to change” (p65).

Means of Support

Some forms of professional development are more readily available to some teachers than others. In addition, the ‘most useful’ type of support will depend on the characteristics of the teachers and the school context.

Resulting Teacher Perceptions, Attitudes and Behaviours

The overall impact of a specific curriculum change on teachers can be illustrated by their perceptions, attitudes and behaviour. Each of the aforementioned factors influences how a change will be perceived by teachers and subsequently dealt with. To enhance our understanding of this process we must look at each of these factors individually and in relation to each other.
1.5 The Research Questions

The specific research questions to be addressed in this study are as follows:

1. What type of support are Western Australian primary school teachers accessing to deal with curriculum change?

2. What type of support do Western Australian primary school teachers perceive as most useful in dealing with curriculum change?

3. What are Western Australian primary school teachers' general attitudes towards curriculum changes?

Each of these questions will be considered in relation to the teacher characteristics and school context described.

1.6 Limitations and Delimitations of the Study

While this study attempts to bring together several constructs related to school improvement and the professional development of teachers, it provides only a snapshot of present circumstances of one specific group of teachers. This study does not offer an in-depth illustration of all teachers or follow the changing circumstances of teachers over an extended period of time. In fact the entire research component of this thesis took place over a single five-month period.

In addition, the focus of the current study is on teacher perceptions and does not claim to provide objective measures of performance or outcomes. While this approach does provide a unique perspective in terms of the subjective viewpoint of this group of teachers it may not provide a true picture of the current state of affairs. Likewise, the scope of this study is limited to the specific teacher characteristics and school context constructs discussed previously.
In no way is this study attempting to present all relevant and influential factors impacting on teacher perceptions, attitudes and behaviour towards curriculum change, it attempts only to contribute to the growing body of literature in this field.

1.7 Organisation of the Thesis

Chapter Two begins with a brief review of curriculum change and educational reform literature, followed by an overview of research into teacher perceptions and responses to change. It concludes with some recent views on supporting teachers through the process of curriculum change and the introduction of a Conceptual Model to be used throughout the current study. Chapter Three presents the rationale for employing a mixed methodological approach and a description of the population of interest in this study. The interview methods and analysis procedures utilised in the first phase of the study are explained, as is the process of questionnaire construction and distribution employed in the second phase. The chapter concludes with a consideration of a number of ethical issues. Chapter Four evaluates the relative quality of the quantitative data and presents a summary of the questionnaire results. These results are analysed and discussed in Chapter Five in terms of the research questions and conceptual model presented previously. The final chapter offers possible implications of this study, including significant findings, the value of the research, methodological reflection, and areas for future research.
CHAPTER TWO: REVIEW OF LITERATURE

2.1 Introduction

In this chapter a range of literature will be presented that addresses the issue of curriculum change and educational reform. Specifically, the Australian context will be examined and the concept of ‘innovative schools’ will be introduced. Next the matter of teacher perceptions and reactions to change will be considered. Questions associated with supporting curriculum change will also be addressed. In particular, activities such as teacher collaboration, professional reflection, and action research will be discussed. Finally, a Conceptual Model based on this review of the literature and relating to the research questions discussed in Chapter One, will be presented.

2.2 Curriculum Change and Educational Reform

2.2.1 Nature of Change

Pressure to Change

The aim in recent times is to become more efficient with fewer resources, by way of scientific breakthroughs and technological achievements. Education is no different. Researchers and academics have aspired to identify essential components of the teaching and learning process with the aim of improving the education system and more efficiently achieving current societal goals. The fundamental structure of schools today show little difference from those of the past despite long term efforts to reform education. Inevitably, the pressure to change falls on the shoulders of teachers who are faced with growing expectations and declining resources. By acknowledging the demands placed on teachers and identifying the type of support they believe is required in the process of curriculum change the likelihood of real and lasting educational change is much greater.
Educational Change

The purpose of educational change “is to help schools accomplish their goals more effectively by replacing some structures, programs and/or practices with better ones” (Fullan, 1991, p15). There are different types of curriculum change: those involving small changes easily assimilated with teachers’ former practices, more substantial changes that need to overcome teachers’ prior beliefs, and those requiring a conceptual shift in the way teachers think about teaching (Wideen & Pye, 1994). Each level of change is progressively more difficult to implement.

2.2.2 Australian Curriculum Change

Australian Trends in Education

Australian education is no stranger to ‘fads’. With predictable regularity innovations are introduced into schools and summarily abandoned, bringing little lasting improvement to education (Karaolis, 1997). Instead, a sense of fragmentation has developed as new policies “are introduced before previous ones are adequately implemented” (Fullan, 1999, p27). During the mid 1960’s Australian education underwent tremendous changes corresponding with population and cultural changes (Rodwell, 1998). The late 1960’s and early 1970’s saw education become more progressive with a focus on social justice (Barcan, 1996). In the seventies, Australian education experienced a conservative backlash towards a ‘back to basics’ approach (Collins, 1995). By the mid 1980’s there was a growing focus on post-compulsory schooling and work requirements (Collins, 1995). Dissatisfaction with schooling in the late eighties and early nineties saw responsibility for curriculum development again taken from teachers and returned to the so-called ‘professionals’ in the field (Kemmis & McTaggart, 1993).
A recent trend towards economic rationalism has seen education being strongly influenced by economic policy (Barcan, 1996). The focus is on managerial efficiency and improving economic performance rather than on educational needs (Karaolis, 1997). The emphasis is on “doing more with less, focusing on outcomes and results and managing change better” (Down et al. 1999, p11). Borne out of this economically driven agenda is the notion of school-based decision-making. This has resulted in greater emphasis on localised curriculum management (Williams et al. 1994) and provides a more efficient means to fund education. While this may appear to empower schools, indirect control by the central government is maintained through guidelines and fiscal incentives (Skilbeck, 1990).

**Approaches to Educational Reform**

Historically a fidelity approach to reform, which required teachers to implement plans as intended by curriculum writers (Snyder et al, 1992), has dominated the Australian educational landscape. During the 1950’s and 1960’s, ‘teacher-proof’ materials were the tools used to stimulate curriculum change (Remillard, 1999). Subsequent observations suggested they were often not applied as intended but instead were adapted to meet student needs. Eventually it was acknowledged that teachers required materials that inspired teaching rather than prescribed it (Eisner, 1979). More recently, mutual-adaptation and interactive reform strategies have encouraged an era of greater professionalism for teachers (Holt, 1979). No longer is a consultative mechanism, where advice is sought but rarely heeded, sufficient. Instead, participation and collaboration are the new goals (Down et al, 1999). As Bailey stated, “so much more could be done if researchers, policymakers and administrators worked with teachers rather than on them” (2000, p113).
**Teaching Conditions**

The failure of past reforms has forced researchers to look more closely at the work of teachers and the classroom context (Cranston, 2000). Lortie (1975, cited in Fullan, 1982) presents an ominous picture of teaching conditions. He identified an ongoing frustration with the lack of time, and a demanding environment in which teachers’ deal with crowded classrooms and management problems. This ‘classroom press’ (Huberman, cited in Down et al. 1999) leaves little opportunity for teachers to reflect on current actions and subsequently improve practice. Therefore, it has been suggested that effective educational change cannot happen until improvements in teachers’ conditions occur (Fullan, 1991).

**Innovative Schools**

“The ability of schools to remain vital and important institutions depends on their ability to understand and cope with the changing world around them” (Levin & Riffel, 2000, p178).

Clearly some schools do manage change better than others (Ridden, 1991). Recently, Gunter (2001) developed a list of factors essential for effective schools, including the features of a learning organisation. While Hargreaves (2000) is reluctant to apply the concept of a learning organisation directly onto educational institutions, he did propose schools be considered learning communities, where responsibility for student success is shared between school community members (Cavanagh & Dellar, 2001). Consequently, some schools have come to be known as ‘innovative’ or ‘lighthouse’ schools. Innovative schools are constantly looking for ways to improve (Ridden, 1991). In these schools change is not considered an additional burden on teachers but rather a ‘normative imperative’ (Holt, 1979).
While they do not necessarily adopt every initiative (Fullan, 1999), 'innovative' schools do tend to be more experimental (Snyder et al. 1992). High-innovation schools tend to foster more collaboration among teachers and there seems to be greater teacher participation in decision-making processes than in low-innovation schools (Geijsel et al. 2001). Through widespread participation and leadership the school community becomes more committed to the success of shared educational goals (Lucas, 1991). It has been suggested that these schools, unfortunately, have difficulty sustaining their innovative approach and regress into more conventional practices (Fink, 2000). Numerous case studies have produced valuable insights into the practices of teachers from innovative schools.

2.3 Teacher Perceptions and Responses to Change

2.3.1 Teacher Characteristics

Given the failure of past educational initiatives it is not surprising teachers are sceptical about the prospect of more reforms. However many teachers do acknowledge the need for change (Richards, 1995). Researchers have subsequently attempted to identify the characteristics of teachers that make them amenable to change and effective in its implementation. Their findings have been inconsistent (Fullan, 1982). Some writers claim differences exist between beginner and experienced teachers, and also differences among teachers according to age (Marker & Mehlinger, 1992). Specifically, Huberman (1989, cited in Datnow, 2000) suggests veteran practitioners are more likely to resist change. The years of teaching experience and the level of education has yielded varying results (Fullan, 1982). Some researchers have declared gender is an even more significant characteristic than age (Datnow, 2000).
It is generally argued however, that teachers’ school district and school conditions *do* impact on their attitudes and ability to cope with change (Fullan, 1991). Similarly, a teacher’s sense of efficacy is considered a particularly strong trait related to successful innovation implementation (Fullan, 1991).

In an attempt to synthesize these findings, Cavanagh and Dellar (2001) proposed a number of constructs within a ‘teacher framework’ that foster a culture of school innovation. These constructs include collaboration, collegiality, mutual empowerment, parental involvement, school wide planning, teacher self-efficacy, teachers as learners, and transformational leadership. Several of these constructs will be dealt with in more detail in the following sections.

**2.3.2 Teacher Responses to Change**

*Innovation Fatigue*

Teacher responses to reforms are influenced by past experiences and current circumstances. In particular, the rise of ‘innovation fatigue’ (Kemmis & McTaggart, 1993) is the result of decades of relentless but ineffectual reforms. Edwards (1999) provides an example of negative attitudes harboured towards the Education Department by a group of Victorian teachers, in which a hostile environment was created through school closures, staff cuts and the introduction of work contracts. Such distrust has led to a situation where teachers do not take change seriously until policymakers “demonstrate through actions that they should” (Fullan, 1991, p74). The dilemma for policymakers is that while teachers are sceptical of reforms that do not make the classroom a focus, they are also wary of changes that threaten classroom autonomy (Flett & Wallace, 2001).
The Risks of Change

Considerable risk accompanies any change a teacher chooses to implement and not surprisingly, many teachers are fearful of impending changes (Williams et al. 1994). In addition to extra time and energy required to attempt something new, there is the possibility the change might ultimately be badly developed or under resourced (Fullan, 1991). As the ‘ultimate consumer’ of reforms (House, 1974), teachers are concerned reforms may fail and they will be held accountable (Wideen & Pye, 1994). By shifting their orientation or implementing new strategies teachers are vulnerable to criticism (Cuban, 1992). On the other hand, by dismissing initiatives based solely on these fears they risk ignoring the potential benefits of many innovations (Flett & Wallace, 2001).

Decision Making

As long as teachers continue to be excluded from formal policy development it is important they scrutinise the legitimacy and validity of those reforms presented to them (Edwards, 2000). In these times of managerialism, where economic not educational interests drive mandates, teacher resistance may be a thoughtful alternative to blind compliance (Fullan, 1991; Edwards, 2000). It is often easier, however, to label teachers unwilling to take on changes as ‘stubborn’ or ‘inflexible’ rather than recognise they have a legitimate cause for resistance (Rodwell, 1998). Considering the number of teaching ‘fads’ throughout the history of Australian education it is not surprising, and moreover it is encouraging, that teachers would subject innovations to stringent tests of usefulness and feasibility before implementation. The question for all teachers should be “how will this improve the experience of school for my kids?” (Down et al. 1999, p24).
Response Continuum

How teachers respond to mandated curriculum change could be represented by a continuum with complete opposition at one end and complete compliance at the other. The majority of teachers, however, will be somewhere between the extremes (Edwards, 2000). Edwards (2000) has identified two categories of initiatives that influence teacher responses. The first was what teachers perceived as unavoidable features of reform that required adoption. The second were aspects of the reform perceived as discretionary and open to modification. Given that teachers do enjoy considerable freedom over the enacted curriculum (Elmore & Sykes, 1992), frequently they will modify mandates to fit the needs of students and their own teaching orientation (Rathjen, 2001). Moreover, teachers will often need to adapt policies “to suit the amount of time and expertise available in the workplace” (Elmore & Sykes, 1992, p194).

While this process of adaptation does ensure wider use of the innovation, it is also likely to lose its effectiveness if changed dramatically (Fleischer & Lindstrom, 1987). According to Edwards (1999, 2000), the way in which teachers adapt policies is also dependent on the stage of implementation. At the planning stage teachers integrate features as required (‘cut and paste’). At the teaching stage, teachers tend to continue their established practices with selective additions (‘duck and weave’). At the reporting stage, teachers manipulate changes to appease superiors (‘smoke and mirrors’). It would seem changes are relatively easy to adopt in theory as long as they do not have to be implemented in practice (Fullan, 1982).
Change Dilemmas

In a recent study of a Victorian secondary school, Flett and Wallace (2001) looked at teacher responses to the introduction of a major systemic initiative. Over a period of three months, intensive observations and interviews were conducted with three male science teachers. The data was analysed using three change dilemmas. Flett and Wallace argued the way these dilemmas are resolved by the teacher influences the actual change occurring in classrooms. In addition to descriptive accounts based on participant recollection of events, the authors presented observations in the form of vignettes to effectively represent a ‘typical day’ in each classroom. They concluded that participants were reluctant to relinquish classroom autonomy and resented even school-based decisions that impacted on classroom practices. They discovered most changes were focused at a structural level with relatively little impact at the classroom level. They also found teachers would assimilate changes into their usual practices and were extremely reluctant to make any significant changes. This study provides an interesting perspective on teachers’ responses to change.

2.4 Supporting Curriculum Change

2.4.1 Fostering Curriculum Change

Before addressing factors constraining or facilitating change, it is useful to consider a number of underlying assumptions about ‘curriculum change’. Firstly, curriculum change is not easy. It requires changing people and this requires ‘readiness’ (Ridden, 1991). Secondly, curriculum change is a process, not a single event (Fullan, 1991; Fung, 2000). It is developmental and requires ongoing support (Ridden, 1991). As such, it may be difficult to recognise the completion of a change. Lastly, each change is unique and is influenced by many factors (Ridden, 1991).
Traditional views of curriculum assumed implementation failure was the fault of teachers who lacked an understanding, the skills, or generally the motivation to conform (Snyder et al. 1992). Contemporary views on curriculum reform propose a closer examination of the context of teaching and the role of the teacher within the decision-making process. Specifically, it has been suggested many reforms lack the resources required for effective implementation. It is believed a lack of consultation with teachers results in a low level of ownership and commitment (Richards, 1995). It is also thought that within the context of schools there is often a lack of leadership and only limited flexibility of structures (Richards, 1995). In addition, teachers are often confronted by a fragmented curriculum in which initiatives compete for implementation, contributing to an insurmountable workload (Richards, 1995). Ironically, teachers are expected to work harder to bring about improvements while simultaneously being more restricted and less supported (Bascia & Hargreaves, 2000).

**Involving Teachers**

The concept of involving teachers in the curriculum development process is not new. ‘The Eight Year Study’ by Giles, McCutchen and Zechiel in 1942, investigated the ‘inputs’ teachers considered essential in order to build a curriculum (see Snyder et al. 1992). More than half a century later, the Eltis Report (1995, cited in Karaolis, 1997) presented a very similar message. Essentially, educational change must be based on comprehensive research and developed through collaboration with a broad range of education professionals. An additional aspect is the need to pilot changes in schools in a way that enhances the professionalism of teachers (Karaolis, 1997). Through intimate knowledge of their students and school context, teachers are poised to make an invaluable contribution to school improvement (Kirk & MacDonald, 2001).
Teacher Characteristics and Implementation

A recent Canadian study by Miller and associates (2000) explained how teachers reacted to the introduction of the Common Curriculum. Two schools, one ‘innovative’ and one ‘less innovative’ were selected with the help of central office personnel. In-depth, unstructured interviews were the main source of data later categorised as old story, present story and new story. It was reported, while most responses were ‘present’ or ‘new’ story, some participants were still working from an ‘old’ story framework and resented the introduction of the initiative. The ‘present’ story was characterised by collaboration and school level professional development. Although none of the schools had fully achieved the ‘new’ story, many teachers were exploring whole school collaboration, and teachers as ‘leaders’ and as ‘learners’. While this categorisation proved a useful tool in describing responses to curriculum mandates, it falls short in explaining why some individuals react in one way and others in a different way.

Factors Affecting Change

Fullan (1991) has proposed a model categorising the factors that affect the implementation of curriculum reforms based on the characteristics of the innovation, the local characteristics, and factors external to the local system, such as the government. A more recent model of conditions fostering the implementation of innovation programs has focused on the local level characteristics identified by Fullan (1991), expressly from a teacher perspective (Geijsel et al. 2001).
This model considers the impact of *transformational leadership*, operationalised by the level of ‘vision’, ‘individualised consideration’ and ‘intellectual stimulation’ perceived by teachers, on three different contributing factors: *feelings of uncertainty*, *participation in decision-making* and *professional development activities*. It is suggested these factors will contribute to the extent of implementation by teachers. Implementation success is operationalised by *changes in teachers’ practices* and *changes in teachers’ attitudes*.

While this research model is still in its infancy, Geijssel and associates (2001) have reported some encouraging findings in their study of a large-scale innovation program in Holland. Their focus was on teacher perceptions of conditions fostering implementation. All variables were operationalised as questionnaire items. Most correlations were found to be significant and in the expected directions.
Firstly, there was a small positive impact of professional development activities on teachers’ implementation of the initiative. Secondly, feelings of uncertainty negatively influenced the implementation of the initiative. Thirdly, there was a small indirect effect of teachers’ involvement in decision-making on implementation. Finally, transformational leadership did have a positive effect on implementation. Geijsel and associates suggested future research might consider the perceptions of students and proposed a focus on teachers’ demographics for explaining differences in the data.

2.4.2 Professional Development

Approaches to Professional Development

Educational change requires that teachers learn something new. This in turn necessitates some degree of development either personally or, more often, professionally (Fullan, 1991). Professional development is the process of acquiring new knowledge, skills and values to improve the quality of professional services (Kvakman, 1999, cited in Geijsel et al. 2001). The question of whether such development is influential to the ultimate success of an innovation remains unresolved (Kvakman, 1999, cited in Geijsel et al. 2001), however a great deal has been written regarding the types of support available and their relative effectiveness. Two different approaches within the literature can be identified, a life cycle approach and a structural approach (Kremer-Hayon & Zuzovsky, 1995). The lifecycle approach emphasises significant periods that occur during a teaching career, whereas the structural approach focuses on the cognitive changes experienced by teachers, such as self-concept.
'Do more with less'

Recent research from the Australian Education Union ACT Branch identified 'workload' as a major issue for teachers. They claim as governments have cut costs they have also placed unrealistic expectations on schools and teachers. Schools are once again told to 'do more with less' (Keely, 2002). Perhaps if more funds are not an option in this day of economic rationalism, where efficiency is often prized above educational goals, then those responsible for the support of teacher development must also learn to 'work smarter'. As suggested by Holt (1979), "a little of the right sort of help goes a very long way" (p151). The aim of this study is to identify the kind of support that is considered most useful by teachers.

For a long time the prevailing approach to teacher professional development was the 'empty vessel' notion (Wideen & Pye, 1994), based on the assumption teachers were deficient and policymakers knew what was best (Bailey, 2000). The impact of most 'in-servicing' was poor (Wideen & Pye, 1994). As a result, a new approach began to surface (Miller et al. 2000). While key types of support remain essentially the same, their relative effectiveness is now being more critically explored (e.g. Kruger et al. 1991; Williamson, 1991; Gardner, 1996). Results have been inconsistent, however some tentative conclusions can be drawn. One-shot workshops are not very effective; although it is essential teachers receive support at early stages of implementation to address specific concerns (Fullan, 1991). While demonstrations of new skills are important for initial implementation success, conceptual understandings must also be addressed for continued use (Fullan, 1991). Also, while teachers claim they learn best from other teachers, interaction is relatively infrequent (Fullan, 1991). Finally, what teachers consider 'useful' varies markedly between individuals (Snyder et al. 1992).
Given these seemingly insurmountable obstacles, how can we ensure teachers are given appropriate and effective support in attempts to cope with curriculum change? Fullan (1991) has developed a list of guidelines to help provide more effective support for teachers. He suggests successful support provides a variety of formal and informal components, including peer-based interaction, external consultants, one-to-one assistance, and network meetings. Above all, professional development should "become a natural part of the work setting" (p344). Recently, five major components of effective training have been identified through a meta-analysis conducted by Joyce and Showers (1995, cited in Joyce et al. 1999). These components, very similar to the guidelines proposed by Fullan (1991), include the presentation of theory, employment of modelling and demonstrations, the practice of skills under simulated conditions, structured feedback, and coaching for classroom application.

**Leadership**

Lately it has been suggested that we must look towards multiple leadership roles within schools. This 'teachers-as-leaders' agenda has implications for professional development activities (Cranston, 2000). In particular, teachers will need to take more control over their own learning agenda, becoming a 'self-regulating profession' (Hargreaves & Fullan, 1998). While some have criticised this as a manipulation of teachers (Gunter, 2001), others agree that only by encouraging teachers to become independent can they become fully professional (Rawlinson & Donnan, 1978). Unfortunately, given the daily pressures of teaching, there is little opportunity to engage in the active reflection required for professional growth (Wideen & Pye, 1994). If practitioners are expected to implement changes it is essential time be created through reductions to other aspects of their work (Mansell, 2000).
Time

The greatest single factor reported in the literature affecting professional development is the need for ‘time’. This is not a new concept. In the 1960’s, the Australian Chief Inspector of Secondary Schools R. A. Reed, encouraged schools to introduce non-teaching ‘curriculum days’ designed to allow time for staff to discuss and plan local curriculum (Marsh & Prideaux, 1993). ‘Curriculum days’ have since become an important part of the school improvement process allowing for greater collaboration between teachers (Bishop & Mulford, 1999). The ‘computer-assisted instruction’ study (House, 1974) also illustrates this point. It was claimed that while teachers were initially influenced by attitudes and behaviours of fellow practitioners, whether they implemented the technology depended on whether they were provided with release time to develop it.

Need for Information

Another area of support, which is now gaining greater attention, is the need for an information-rich environment. If Australia is to become a ‘smarter’ nation it is essential Australian educators keep informed of the world’s best practice (Jennings, 2001). Sources may include research articles in educational journals, workshops and conferences, university links and courses, and importantly networks between schools and districts (Wideen & Pye, 1994). In this way, knowledge becomes a medium for new ideas and a stimulus for collaboration (Wideen & Pye, 1994), and in the process enhances the professionalism of teachers (Richards, 1995). Unfortunately, many teachers are unaware of the numerous journals pertaining to their profession. Alternatively, if they are accessible, teachers do not have the time to explore their contents (Burnaford, 1996a).
Collaboration

Collaboration has become a new focus for educational researchers. It is thought through partnerships and collegiality, teachers will be engaged in intellectually challenging professional development while at the same time overcoming the isolation of traditional classrooms (Wideen & Pye, 1994). Innovative teachers, it has been suggested, require interaction and support from colleagues, by way of ‘interpersonal safety nets’, to avoid exhaustion (Hargreaves & Fullan, 1998). Given the necessary time and resources many teachers are keen to undertake collaboration with their colleagues (Hobson, 1996b). It should be acknowledged however, some teachers do find the process of collaboration oppressive (Wideen & Pye, 1994) and resent the shift away from classroom autonomy. Obviously this transition will require a great deal of personal adjustment as traditional structures are removed in an attempt to become ‘learning communities’ (Lewis, 1998). Nevertheless, there is mounting agreement among teachers that the most meaningful professional development is that which provides opportunities to reflect on their own work and discuss issues with other teachers (Tafel & Fischer, 1996).

A Hong Kong case study by Fung (2000) illustrates the process involved in moving from traditional top-down teacher development to a collaborative approach. The aim was to increase teacher participation in the change process by involving them in curriculum decision-making. Fung reported positive outcomes, with an increased sense of empowerment for teachers and improved performance by students. Participants did however report a significant increase in workload and initial problems with class discipline. In spite of these negative effects, the overall impact of the collaborative approach to teacher development is encouraging.
Professional Learning and Reflection

Traditionally, teachers have not been encouraged to develop the conceptual tools necessary to fully understand the challenging field of education (Eisner, 1979). They were instead regulated out of the curriculum process. However, teachers are now required to make complex decisions regarding the ‘enacted curriculum’ (Tripp, 1994). Professional learning is now considered the “basic professional obligation of teachers themselves” (Hargreaves & Fullan, 1998, p53). Involvement in professional development activities that encourage teachers to challenge their educational platforms, and even involvement in research studies that require participants to articulate their views (e.g. Remillard, 1999), are essential for the professional growth of teachers. Cole and Knowles (1995) reported that talking to researchers about their teaching experiences helped some teachers to engage in an “ongoing reconstruction of their understandings” (p150). Such narrative inquiry is claimed to be a type of professional development for participants. It has also been suggested that teachers need to hear stories of other successful teachers (Herzog, 1995). In this way teachers can be inspired to try new approaches to teaching. Unfortunately, teachers wishing to undertake serious professional reflection, either independently or collaboratively, are constrained primarily by time (Wildman et al. 1990). Time out of the classroom is often taken up by administrative tasks, lesson preparation and student assessment, leaving little opportunity to undertake deep thinking about teaching issues (Wildman et al. 1990). While it is acknowledged teachers do think back over lessons and attempt to improve their practices, the underlying assumption is that critical reflection requires more systematic and informed analysis for real growth (Houston & Clift, 1990). Action research is a means of achieving such critical, professional reflection.
**Action Research**

As teachers are encouraged to become more involved in the work of academic researchers and curriculum designers, they risk becoming estranged from the classroom context (Elmore & Sykes, 1992). A move towards action research provides a compromise. Action research is based on the premise that teachers will identify their own educational problems in the classroom and endeavour to solve them (Wideen & Pye, 1994). This powerful means of professional development allows teachers to take control of their own improvement, while incorporating both theory and practice into their enacted curriculum (Wideen & Pye, 1994). The basic model of action research involves a 'spiral of cycles'; identifying a general idea, reconnaissance, planning, developing first action step, implementation, evaluation, revision of plan, and so on (Elliot, 1991). Such investigations of real issues undertaken by real teachers in real situations lend themselves to more practical and relevant findings (Hobson, 1996a). This approach to professional development supports the view that one-shot workshops are nothing more than short-term solutions to classroom problems (Burnaford, 1996b).

Critics of the action research movement have warned that teachers are simply being manipulated into more responsibility under the guise of 'emancipation' (Clandinin & Connelly, 1992). In addition, action research can be seen as quite threatening to practitioners, who are by the very nature of the process, required to change their teaching attitudes and behaviours (Holt, 1979). The assumption is made however, that those teachers who agree to undertake action research are prepared to change (Holt, 1979).
2.5 Conceptual Model

Based on this literature in the field of educational reform, the research model presented in Figure 2 was constructed in an attempt to organise the specific aspects of teacher characteristics and school context that impact on teacher perceptions, attitudes and behaviours during the process of curriculum change. This model is later revised in light of research findings throughout the course of this study.

Figure 2: Model of factors impacting on curriculum change
With this conceptual model as its foundation the current study was developed. Teacher perceptions of recent curriculum changes, the type of professional development activities accessed and valued, and the relative influence of specific teacher characteristics on responses to change were organised within this framework. In particular, this model helped to distinguish between those impediments to change arising prior to, as opposed to following, professional development activities.

2.6 Conclusion

This chapter has introduced a number of important issues in the field of educational change and school improvement, specifically the matter of ‘innovative schools’, teacher perceptions and reactions to change, and specific means of supporting teachers throughout the process of curriculum change. A Conceptual Model, to be used as a framework for this study, was also introduced. The next chapter will introduce the current study in terms of the mixed methodological approach taken, the population of interest, and a detailed description of the methods employed during phase one and two of the study.
CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter begins with an explanation of why a mixed methodological approach was taken during this research. Following this, a description of the target and defined population of interest is provided, along with the sampling frame employed. A detailed description of the qualitative methods employed during phase one and an analysis of these findings are then presented, followed by information regarding the quantitative methods employed in the second phase of the study. Lastly, a number of ethical issues encountered during the study are considered.

3.2 Mixed Mode of Study

A mixed mode of study, utilising both qualitative and quantitative approaches to research, allows for greater flexibility in the methods utilised than either approach alone. Furthermore, this amalgamation of techniques and procedures is now widely viewed among educational researchers as acceptable (Howe, 1992), acknowledging the strengths each approach offers (Neuman, 2000). In the context of the present study, these two approaches compliment each other by allowing the researcher to first explore emergent themes through semi-structured interviews and informal observations, which are then organized into a more structured investigation with a larger population. In this way the rigid dichotomy between the qualitative and quantitative models is overcome as each approach offers a unique perspective and style, which is easily combined to suit the researcher’s needs (Neuman, 2000).
The study was conducted in two parts over a five-month period. The purpose of phase one was to become familiar with the current circumstances of teachers in relation to curriculum change. By focusing on the attitudes and behaviours of teachers from ‘innovative’ schools it was thought more could be learnt than in schools that maintain the status quo (Wideen & Pye, 1994). Subsequently, the process of selecting schools for analysis, based on the assistance from district office staff, was closely aligned with the methods employed by Miller and associates (2000) in their Canadian study. Qualitative methods of semi-structured interviews, informal observations and the analysis of websites and school documents were utilised throughout the first phase. The second phase of the study was more closely associated with the quantitative approach used by Geijsel and associates (2001), which circulated questionnaires to a large number of teachers in Holland. This phase took place in October and November of 2002 and required questionnaire construction and distribution. It is expected that the triangulation of these different methods of data collection—document analysis, interviews, informal observations and questionnaires, will help to ensure the trustworthiness of interpretations (Glesne & Peshkin, 1992).

3.3 Population

3.3.1 Target Population

The population of interest was Western Australian primary school teachers, as relatively little research has been undertaken with this group. Specifically, Australian research has largely been drawn from educators in the eastern states (e.g. Lewis, 1998; Bishop and Mulford, 1999). A notable exception is a Western Australian study by Down, Hogan and Chadbourne (1999), which focused on the implementation of performance management in schools.
3.3.2 Defined Population

As this is a large target population, only government schools from a single education district made up the defined population. Relatively little research has been focused on groups of schools within a single district, "[t]he vast majority of research had focused on individual schools" (Fullan, 1999, p48). In addition, it is assumed that schools within a single district have access to similar professional development opportunities (Fullan, 1991). The focus is also exclusively on government schools, as they are required to take up Education Department initiatives, whereas adherence is often optional for non-government schools. Initially it had been planned to sample from the researchers’ own district, however, by approaching unfamiliar schools it was thought bias may be reduced, as “previous experiences with settings or peoples can set up expectations for certain types of interactions that will constrain effective data collection” (Glesne & Peshkin, 1992, p22).

In order to maintain anonymity, pseudonyms have been used for schools based on the names of native Western Australian marsupials. ‘Woodlands’ District was chosen as the defined population for several reasons. Firstly, as the study was concerned with curriculum reform, the district’s motto relating to change and quality education was pertinent. The district was also close in proximity to the researcher, reducing travel demands and expenses. In addition, several potential ‘gatekeeper’ options were available with several colleagues of the researcher having friends or relatives working in the district. This district is also relatively small in terms of the number of schools within its catchment compared to most other districts within the state. This allowed the possibility of achieving a higher proportion of the defined population as a sample.
There are only 45 schools, both primary and secondary, in the ‘Woodlands’ District as opposed to approximately 100 in the neighbouring ‘Sandy Plains’ District.

3.3.3 Sampling Frame

All public primary schools in the ‘Woodlands’ District were listed in the *West Australian Schools: Alphabetical List, Semester 2001* published by the Corporate Information Management Branch of the Education Department of Western Australia (EDWA). This was compared with the list of schools provided on the EDWA website for any updates. Of the 45 schools in the ‘Woodlands’ district, only 30 fitted the criteria. Educational support centres, junior primary schools, district high schools and middle schools were excluded from the sampling frame, as they do not cater for students from Pre Primary to Year 7.

3.4 Phase One: The Interviews

3.4.1 Negotiating Access to the District

Initially the Education Department of Western Australia (EDWA) was contacted for information regarding any formal procedure or application required at a district level before approaching individual schools. The researcher was advised to contact the Curriculum Improvement Manager (CIM) for the ‘Woodlands’ District who confirmed there was no requirement that schools be approached through the district office and that they needed to be approached directly.

The EDWA website (www.eddept.wa.edu.au) dedicated to the ‘Woodlands’ District was accessed before speaking to the CIM to gain a better understanding of the district, specifically the district office Curriculum Team and their functions.
These include:

- Assisting and advising on planning at the individual teacher or whole school level,
- Providing feedback and a sounding board for work in progress,
- Facilitating or supporting teachers in professional development workshops’
- Assisting in developing Commonwealth Literacy Program plans and School Development plans.

In particular, mention was made of the funding and support of action research projects in schools. This later became a focus for the research. With these functions and goals in mind an interview schedule for the CIM was developed (Appendix A).

3.4.2 Networking: Curriculum Improvement Manager

The aim in speaking to the CIM was to acquire an insight into how change had generally been received within the district. This person was responsible for directing a cluster of schools in curriculum improvement matters, providing resources and advice. The CIM was in a position to know how schools within the district are coping with current curriculum changes. It had originally been planned to speak to the District Director, however it was decided the CIM would be more informed of current curriculum operations of schools within the district. The CIM was also asked to recommend schools on the basis of their perceived ‘innovativeness’. Earl and Katz (2000) also enlisted this form of non-probability sampling in their study of curriculum changes by initially identifying participants through district administrators, as did Miller and associates (2000) in their Canadian study.
A meeting with the district CIM was organised over the telephone. At the initial face-to-face meeting the research plan was described and a formal interview was requested. A copy of the interview schedule was requested by the CIM to allow preparation of answers and a time was arranged for a subsequent interview. This interview proved extremely useful in gaining a sense of the district and of the professional development activities employed to support teachers in curriculum changes. The level of commitment to innovation and teacher support, from a range of activities such as workshops, conferences, networks and action research, was evident immediately. In addition, information was provided concerning an annual forum and Education Week celebrations used to highlight innovative practices around the district.

Critical to the research was the issue of ‘innovative schools’. While the CIM found it difficult to provide a specific criterion for an ‘innovative’ school, the type of actions which would identify such schools was described:

“...schools that put their hands up and say, 'well we're going to try something different'. They are risk takers and they just jump in and do it.” (CIM)

When specifically asked to identify primary schools within the district, which consistently demonstrate these ‘innovative’ qualities, the CIM was able to recommend several schools with specific reasons for the recommendation. This method of ‘networking’ (Glesne & Peshkin, 1992) was useful in identifying the type of schools required in the first phase of the research. The CIM was also keen to discuss the findings once the research had been completed.
A Year 2000 copy of the ‘Woodlands’ Education District: Successful Practice’ booklet, which assembles reports of all the funded action research projects undertaken within the district over the past year, was obtained. This booklet was useful in cross-referencing the schools that had been nominated as ‘innovative’ by the CIM, and also to gain a better understanding of the type of action research being undertaken within the district.

3.4.3 Negotiating Access to the Schools

Prior to contacting the selected schools advice was sought from the researchers’ current principal concerning the most appropriate method of approaching principals about assistance with the research. His advice was to make an appointment to speak to the principal to discuss the research and to request to attend a staff meeting to ask for volunteers. He suggested at the staff meeting the researcher should provide a short personal introduction, briefly present the research plan, request volunteers and offer one-hour relief time in reciprocation. This advice was followed with the exception of one school that required a letter requesting a meeting with the principal.

Based on recommendations from the CIM, five ‘innovative’ schools were approached to participate in the interview phase of the investigation. An introductory script was prepared and delivered to the reception staff with a request to speak to the principal. On some occasions the principal was contacted immediately, however on most occasions the researchers was informed that the principal would return the call later that day. Once contact was made with the principals, an introductory speech was delivered (Appendix B). Following this initial contact a written information letter (Appendix C) and letter of introduction (Appendix D) was distributed.
This served as a written reminder for the principals of the research and ‘cover story’ for the subsequent meeting (Glesne & Peshkin, 1992). Two schools declined to participate, stating they were already involved in a number of research investigations and did not want to over burden their staff. This was not surprising considering they had been identified as ‘innovative’ and would therefore be likely to be the subject of other research projects and be involved in a number of challenging school initiatives. What follows is a brief profile of each of the three ‘innovative’ schools that agreed to participate in the interview phase of the study.

<table>
<thead>
<tr>
<th>School name</th>
<th>Year of commencement</th>
<th>Total number of staff</th>
<th>Number of students</th>
<th>School level</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Tammar’</td>
<td>1972</td>
<td>28</td>
<td>316</td>
<td>5</td>
</tr>
<tr>
<td>‘Quenda’</td>
<td>1986</td>
<td>21</td>
<td>192</td>
<td>4A</td>
</tr>
<tr>
<td>‘Mala’</td>
<td>2001</td>
<td>34</td>
<td>409</td>
<td>5</td>
</tr>
</tbody>
</table>

(“School Profile System” website www.eddept.wa.edu.au as at September 2002)

**Table 1: Summary of schools participating in interview phase**

With the exception of one school (Tammar), the principals who agreed to participate arranged a time for the researcher to speak to the staff about the study and ask for volunteers. In the case of the other school, the principal opted to speak to staff he thought would be interested in participating and who were undertaking innovative changes, and arranged a time for me to meet with them. It was later discovered the two teachers he identified as ‘innovative’ were the teachers engaged in the ‘innovative’ teaching that was singled out by the CIM.
Of the three schools that agreed to participate, there were doubts as to the level of ‘innovativeness’ of one of the schools nominated (Quenda). When the researcher attended the staff meeting, the general perception was that is was a more traditional school. The teacher who volunteered to participate was not involved in any particularly innovative curriculum change, but had recently undergone a substantial shift in her role at the school and has required extensive professional development. This was considered sufficient grounds to include her in the interview phase of the study given the nature of the questions, i.e. responses to change and types of support accessed.

During a visit to Mala Primary School to request volunteers, the researcher was invited to attend an after-school staff meeting. Observations of this staff and their meeting were consistent with the features identified in ‘lighthouse’ school literature (Wideen & Pye, 1994; Geijsel et al. 2001). It was a new school (one year old) with a relatively young staff. They were involved in many ‘innovative’ programs, including Information Technology integration, collaborative teaching, gender and mixed aged groupings, and multiple intelligence teaching strategies. During the course of the staff meeting it was proposed a ‘Professional Reading’ area be developed which would include a lounge, bookcase and books with a focus on ‘teaching research’ to be included for professional reading and discussion. This is consistent with an ‘intellectually stimulating’ work environment (Geijsel et al. 2001). There was evidence of leadership from across the staff and widespread decision-making opportunities. In addition, there appeared to be a very collegial atmosphere within the group, relaxed and jovial. This would be an ideal school for a more in-depth case study of ‘lighthouse’ school behaviour and trends.
3.4.4 Interview Schedule

Based on the areas identified in the literature, a number of possible questions for the interview schedule were developed. Considering there would only be one opportunity to speak to each interviewee and an upper limit of one hour, it was necessary to ensure each question was broad enough to allow participants latitude to follow a particular train of thought, but specific enough to address the research questions (see Appendix E for Interview Schedule). A study by Earl and Katz (2000) addressed similar issues in terms of how teachers were dealing with curriculum change. Consequently these interview questions were taken as a guide. For example, questions regarding success and difficulties encountered by interviewees during the process of implementation, as suggested by Earl and Katz, were included.

3.4.5 Interview Process

Semi-structured interviews were conducted throughout August of 2002 with six teachers from three different schools within the selected district. To be included in the study, teachers needed to teach any year from Pre Primary to Year 7 and/or teach in a specialist area. Both full and part time teachers were encouraged to participate. One to three teachers from each nominated school, who were either recommended by their respective principals or volunteered after being approached in a staff meeting, were involved. This process of non-probability sampling allowed a combination of different teaching levels and levels of experience, older and younger teachers, and both male and female teachers. Interviews were conducted at the respective schools in either their own classrooms or private interview spaces. No significant interruptions occurred during any of the interviews. With the exception of a group interview of three participants at Mala, all other interviews were undertaken on a one-to-one basis.
Given the relatively brief time allowed for the interviews, it was essential a good rapport be developed with participants quickly. The most effective way to achieve this was through friendly and informal body language. The researchers’ appearance was appropriate for the occasion with neat, casual clothing that would be suitable for a teacher working in the school. Moreover, it was essential interviewees were reminded that as a teacher the researcher had also undergone curriculum change. This appeared to relax participants and they seemed happy to share their experiences with a ‘colleague’ rather than a ‘researcher’. By taking this ‘practitioner as researcher’ (Glesne & Peshkin, 1992) approach, it is believed interviewees were more candid with their responses. After the purpose of the study was explained in more detail and it was confirmed they were free to end the interviews at any time, each interview respondent was required to complete an informed consent sheet (Appendix F) and profile sheet (Appendix G), including sex, age group, years teaching, teaching level, educational background, and school size, which was included in later analysis.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Participants (N=6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>(2) Males, (4) Females</td>
</tr>
<tr>
<td>Age</td>
<td>(1) 20-25yrs, (1) 26-35yrs, (3) 36-49yrs, (1) 50+yrs</td>
</tr>
<tr>
<td>Years Teaching</td>
<td>(2) 0-5yrs, (1) 6-12yrs, (2) 13-19yrs, (1) 20+yrs</td>
</tr>
<tr>
<td>Teaching Level</td>
<td>(1) Junior, (3) Middle, (2) Senior</td>
</tr>
<tr>
<td></td>
<td>(1) Part-time (5) Full-time</td>
</tr>
<tr>
<td>School Size</td>
<td>(1) Level 4, (5) Level 5</td>
</tr>
</tbody>
</table>

**Table 2: Interview participants profile**
Respondents were asked if they would allow the use of a tape recorder throughout the interview to ensure accuracy (Glesne & Peshkin, 1992). All interviewees agreed to have their interview recorded. While an interview schedule based on the information needs was followed, on several occasions participants were encouraged to follow a particular line of discussion that was relevant to the study but not included in the list of questions. Interview timing was kept flexible but a maximum of one hour was set prior to commencement of the interviews. The interviews lasted for between twenty and forty minutes. Macmillan (2000), in his study on the impact of leadership succession on school culture and educational change, also reported interviews lasting from twenty to forty-five minutes. Interviews were transcribed and returned to participants for approval. Participants were encouraged to make modifications they deemed necessary before commencement of the interview analyses (Glesne & Peshkin, 1992).

After each interview, teachers were again offered an hour of relief in reciprocation for their time. The use of relief time as a ‘miscellaneous commodity’ communicates to interview respondents how important their time and cooperation are to the study (Glesne & Peshkin, 1992). Only two teachers took up this offer and times were arranged for within a week of the interviews. All interview participants and their schools, including the district CIM, were given a ‘thank you’ card that showed the researcher’s appreciation for their time and contribution.
3.5 Phase One: Analysis

3.5.1 Content Analysis of the Interviews

Each interview transcript was reread several times by the researcher. Issues were extracted and then organised into major themes (see Figure 3). Issues that made up each broad theme were later developed into questions for a self-response survey. A possible weakness at this point in the study, similar to that reported by Snyder and associates (1992), is that the researcher undertook single person coding of the interview transcripts without any statistical measures of intercoder reliability. While there is a risk the data could have been categorised differently (Holt, 1979), these categories were well supported by the literature and the conceptual framework described previously.

The following diagram represents the major themes that emerged from the interview phase of the study. Each theme is then presented with specific examples from the interviews.

![Diagram of the change process]

Figure 3: Major themes that emerged from the interviews
THE CHANGE PROCESS

A shift in the research focus from ‘centrally mandated curriculum changes’ to ‘curriculum changes’ more generally was necessitated through unexpected observations during the interview phase. The ‘innovative’ teachers interviewed were not talking about mandated reforms such as the Curriculum Framework or Student Outcome Statements as expected, they were far more aware of the specific shifts in teaching which have been required as a result of these documents. Topics such as collaborative teaching, integrated curriculum, gender and multi-age groupings, and student centred learning were the main concerns for this group of teachers.

Teacher 1  “We work in gender groups, and developmental groups and multi-aged groupings.”

Teacher 6  “Over the last two years it has been a change in emphasis towards cooperative learning...In order to facilitate that, we have had to be trained ourselves as part of the team to learn how to go about implementing some of those changes.”

It appears teachers in this district are beyond the initial conceptual shift required to implement the Framework and are far more engaged in applying this orientation to their teaching practices.

The interview participants were generally very positive towards curriculum change, some were even enthusiastic.

Teacher 3  “I was quite happy for the change, you know coming into this, because I was getting quite bored...I found a new enthusiasm for teaching...It’s interesting and different all the time. I love it!”
It was recognised however, that the change process might be more difficult for some teachers than for others.

Teacher 2  "...it's good because everything was new to us anyway because we were grads, first out basically, and since we've started from day one we haven't really had to make many changes to our teaching style and things like that..."

Teacher 5  "The mindset of coming from a school that wouldn't have even thought of doing that to a school that's doing it, and being in the old bracket. The older you get the harder it is to change."

These teachers acknowledged school-based decision-making as an influential factor in implementing curriculum change.

Teacher 1  "Because we work in teams, like senior block, middle block, junior block, you work out basically how you are going to structure your timetable... Each term we reassess what area of need and focus on that..."

Teacher 5  "It was basically [the principal's] idea. The actual staff developed it."

Teacher 6  "These changes came from reflection and doing some journal work and sitting down and saying what things worked really well and what things do we need to refine."

SUCCESSES

The greatest single success mentioned by the teachers interviewed was the ability to share their experiences with other teachers. This proved to be a very rewarding experience for this group of teachers.
Teacher 5  “I was actually able to share [the rubric] with someone else from another school...So that kind of success made me feel good. It’s actually changed my idea about doing it.”

DIFFICULTIES

Various difficulties were discussed, in particular issues of collaborative planning, trying something completely new and just getting started, school organisation, and the general teaching workload (Fullan, 1991).

Teacher 2  “I mean it’s easy planning with one person, but planning with six, and you’ve all got your different ideas, and everyone wants to put in all their ideas...”

Teacher 3  “That’s something else coming in here, everything is collaboratively based. It’s totally confusing, but you just get used to it. You fall into it.”

Teacher 4  “…we feel like we have been in a whirlwind...I haven’t done the activities before, I don’t know if they are going to work or not...So we have to adapt as we go...You are on tenterhooks...”

Teacher 5  “I found it, to get started incredibly hard...Until I had actually gone through working with my own class, and then I thought, ‘Well, it wasn’t that difficult’.”

Teacher 6  “Organisation is probably one of the biggest things...you start to do things a little bit differently, you start to allow a little bit more movement within the classroom, you start to utilise different areas around the cluster.”

Teacher 6  “It’s a bit up and down at times. It’s a challenge. The whole thing is a challenge...it’s a bit of a balance between all the things that go on in your day.”
SUPPORT AND PROFESSIONAL DEVELOPMENT ACTIVITIES

Collaboration was the key source of support identified by the interview participants.

Teacher 1  "Every PD day's focus has been collaboration..."

Teacher 2  "...we have had quite a bit on working in teams, working collaboratively..."

Teacher 5  "I couldn't have done anything without peer support...I suppose I'm lucky because I'm married to a teacher... All my friends are teachers. So you can also bounce things off there. That's the kind of support you need...There's always someone in a school...from the principal to the first year out in the school, there's always someone that you can find that is coming up with the same kind of problems that you've got..."

Teacher 6  "...I think the biggest resource has been our own expertise as a team. We have regular team meetings once a week where we get together and talk about the programme that we are doing, and the things that are going well."

Based on the interviews with both the teachers and the CIM an unexpected topic emerged as significant, that of action research as a means of professional development.

Teacher 5  "Money floats around for any kind of action research. So we put up a proposal...We went through the various steps, we recorded what we did, we wrote it up at the end and presented it."

Similarly, some of the teachers were enthusiastic about accessing websites on the Internet for ideas.
Teacher 1  “I've looked up heaps on the Internet...There's heaps, heaps about [collaborative teaching]...there's also some [websites] that have got teachers sending in their reflections about different things they have done. I find that quite interesting...”

Teacher 5  “...you can go to the Internet now and you can find so much on rubrics now which is all American based, put it in your own words, change it around, comes up quite well.”

Teacher 6  “You can go to the website and type in the situation and circumstances, or look at similar situations, and then look at what different responses you could do in those circumstances.”

While some teachers did mention workshops and external consultants, their attitudes towards this type of support were mixed.

Teacher 4  “I did attend a workshop...It was very informative for me...It was just one session. I probably would have liked more...There have been [other] courses run, but they have been on other days, and because I have a young family I have to pay for childcare etc. And it's my time and I am willing to give a bit, but not that much.”

Teacher 5  “Some of these consultants, in inverted commas, they charge big money, one out of four is usually quite good...I'm not very keen on people who try to be motivational speakers...Get down and tell me something I can use. None of this airy-fairy stuff.”

Teacher 6  “We did an extensive three-day workshop...on cooperative learning. [The external consultant] came in on a number of subsequent occasions to help us develop programmes...That's helped out.”
FUTURE SUPPORT NEEDS

The type of support most requested by this group of teachers was ‘time’. Time to visit other school and time to reflect.

Teacher 1  “It would be great to go over east or overseas to see how these sorts of things work.”

Teacher 4  “...I would have liked an hour a week to find out more about what I should be doing or how things should go. Even have a look at other schools at that time...”

Teacher 6  “...we definitely need time for relief...if you haven’t got time to go away and sit down and think about how it fits into your circumstance you will never ever really use it. You’ve got to have time to sit and reflect.”

MISCELLANEOUS COMMENTS

The interview participants acknowledged the need for teachers to be flexible as more curriculum change is inevitable, but also recognised that they need to be properly supported in their efforts.

Teacher 1  “You have to be able to adapt quickly to change.”

Teacher 4  “Well I have to say I’m quite proud of myself for being as adaptable and flexible as I am.”

Teacher 5  “If you are going to make me change, tell me how I am going to do it...Just don’t give me theory, I don’t want the theory. I just don’t use it.”

Teacher 6  “We tried to do too much in too short a time, because I think that is what you do when you take on something new... If we sustained the same pace that we did last year I think that burnout would have been a major factor.”
These findings were considered in relation to the conceptual model presented earlier (see Figure 1). Relevant themes were identified and developed into specific questions for the self-response surveys in the second phase of the study. Questionnaire development will be addressed in detail in following chapter.

3.5.2 Document Analysis

Originally it was intended to analyse the School Development Plans of each school participating in the interview phase of the study. It was thought these documents could provide insight into the school priorities and the professional development planned for the next five-year period. This course of action was not pursued as it was acknowledged formal plans are not always the best representation of what actually happens in the schools. It was deemed more valuable to ask teachers directly what type of initiatives were taking place in their current school. Similarly, rather than requesting to see teacher programmes, it was deemed more valuable to ask teachers to discuss their perceptions and their actions.

In addition to analysing interview content, the Parent Information Booklets from each school which participated in the interview phase and the ‘2000 Successful Practices’ Booklet published by the ‘Woodlands’ Education District each year to showcase the innovative practices from around the district, were analysed. The ‘Successful Practices’ booklet contained many individual case studies and written reports of action research activities in a range of areas within the district. The Parent Information Booklets provided insights into the school ethos and current priorities. In this way a better understanding of the school contexts in general, and specifically that of ‘innovative’ schools was gained.
3.6 Phase Two: The Questionnaires

3.6.1 The Sample

Schools asked to participate in the questionnaire phase of the study were randomly selected. All eligible schools within the district that had not been approached to participate in the interview phase were listed in alphabetical order. The schools were numbered 1 to 25. Six schools were randomly selected to participate in the questionnaire phase of the study using a random-numbers table (Neuman, 2000). An additional four schools were selected as alternative schools for those not willing to participate.

<table>
<thead>
<tr>
<th>School</th>
<th>Year of commencement</th>
<th>Total number of teaching staff</th>
<th>Number of students</th>
<th>School level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1978</td>
<td>15</td>
<td>266</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>1993</td>
<td>45</td>
<td>818</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>1986</td>
<td>21</td>
<td>335</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>1973</td>
<td>14</td>
<td>184</td>
<td>4A</td>
</tr>
<tr>
<td>5</td>
<td>1975</td>
<td>31</td>
<td>531</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>1988</td>
<td>21</td>
<td>370</td>
<td>5</td>
</tr>
</tbody>
</table>

From: www.eddept.wa.edu.au at September 2002

**Table 3: Summary of schools selected for questionnaire phase**

It was decided not to stratify the sample, as originally intended, as there did not seem to be any evidence to suggest the size of the school was a determining factor in a schools’ innovativeness or the level of perceived support for teachers. It was determined a more representative sample of the district would be achieved through random sampling. As it turned out, schools were randomly selected in the same proportion in terms of school size as those in the district, i.e. one Level 4 School, four Level 5 Schools, and one Level 6 School.
From the schools selected all teachers were invited to complete the questionnaire. This cluster sampling of all teachers within the selected schools, including specialist and part-time teachers, was thought to encourage a more representative sample of teachers across the district. Unfortunately, there is the risk that only certain types of teachers, for example ‘innovative teachers’, have chosen to respond to the survey.

3.6.2 Questionnaire Development

Preliminary Questionnaire

A preliminary questionnaire (see Appendix H) was developed and trialed with eight volunteers from three schools outside the defined population. It was predicted certain factors impact on the way teachers deal with changes to the curriculum. These variables include the type of support structures available to teachers, their attitudes towards changes and characteristics of teachers themselves, such as teaching level and experience, age and sex, and educational background. Central to the study was the extent to which each variable impacted on coping strategies. Despite this questionnaire being limited in both range and depth, preliminary findings were helpful in determining useful areas for further investigation. For example, it was discovered teachers had great difficulty with the concept of future support requirements (Neuman, 2000). Instead, it proved more valuable to ask what support they had previously accessed and to what extent those mechanisms had been useful. In addition, preliminary analysis identified coding conflicts that had not been anticipated. Consequently, additional codes were developed to allow for such variations in the data. Written responses were omitted from this analysis and later categorised on the basis of emergent themes. Based on this preliminary data changes were made for a trial questionnaire.
**Trial Questionnaire**

Based on the themes arising from the interviews, the research literature and data gathered from the preliminary questionnaire, a trial self-response survey was developed (Appendix I). Essentially it was 'a theoretical and empirical blend' (Snyder et al. 1992). This trial questionnaire was taken to an 'innovative' school in a district to which the researcher had access. Ten volunteers or 'facilitators' (Glesne & Peshkin, 1992) were sought for the trial to collect both sample data and feedback on questionnaire clarity, layout and suggestions for improvement. Pilot questions about the actual questionnaire were modelled after those suggested by Bell (1993), including 'In your opinion, has any major topic been omitted?' (Appendix J). While only one male participated in the trial, there was a wide range of ages, years teaching and teaching levels represented.

General responses to the questionnaire were positive. A number of suggestions were made regarding wording and based on these sample results some questions were later omitted. For example, all participants in this trial were from a Level 5 school, however one responded 'Level 3', one responded 'Level 4', only seven responded 'Level 5', and one responded 'Unsure'. The reliability of this question was deemed too low for inclusion. In addition, there is an absence in the literature regarding school size ('Level') as a contributing factor in attitudes towards curriculum change and the types of support accessed. Similarly, the first question asked respondents to indicate which of the curriculum changes listed they had undergone in the past five years. With the exception of 'Gender and multi-aged groupings' (30%), all other categories received at least 80% affirmative responses. As this question failed to provide differential or useful information it was subsequently omitted.
The question that required respondents to rate the relative usefulness of specific means of support proved to be very useful in terms of the sample data, however it was discovered some wording needed to be modified to facilitate more accurate completion. For example, ‘Undecided’ was changed to ‘Undecided/Depends on presenter’ and additional instructions were included on support that had not been accessed (‘Not Used’). As the application of action research as a means of professional development had been a focus in the study, it was removed from the checklist of ‘Means of support’ and written as a separate question including more details about ease of use and effectiveness. Most other questions were then streamlined to reduce the time for completion from approximately sixteen minutes to less than ten minutes.

**Revised Questionnaire**

After changes were made to the trial questionnaire a revised trial questionnaire was presented to three other teachers from the same school (Appendix K). These teachers were chosen because they were available and as friends of the researcher they were willing to provide constructive criticism. They checked for any problems with the revised format and to establish an approximate time for questionnaire completion. No problems were identified and the average time for completion was approximately seven minutes (7 minutes, 7 minutes, and 6 minutes). This was considered reasonable so that questionnaire completion would not be a burden to an already busy staff. The revised questionnaire was then submitted for University Ethics Committee consideration and approval.
3.6.3 Questionnaire Distribution

After approval had been attained from the University Ethics Committee, the six schools randomly selected were approached to participate in the questionnaire phase of the study. Principals were approached in the same way as in the interview phase of the study, first by telephone, then letters of introduction, followed by a brief meeting to discuss the research and the possibility of their school becoming involved. Two principals agreed to allow the researcher to speak at a staff meeting to request volunteers and arrangements were made to attend the next available meeting. Four principals suggested they present the questionnaires to their staff for consideration at a staff meeting and would advise the researcher of the response. This was suggested as an alternative to the researcher speaking to the staff directly because of the busy schedules of the schools. All interested teachers were provided with an envelope containing a questionnaire and stamped self-addressed envelope. To encourage participants to respond a reminder letter was sent to all participating schools after one week (Appendix L). After a further week, a box of chocolates, a ‘thank you’ card and additional questionnaires were distributed to all schools participating in the questionnaire phase to thank them for their support and encourage more responses. While applying a code number to each questionnaire would have allowed more individualised followed-up, it was decided not to enlist this process instead encouraging a greater perceived level of anonymity for respondents. It was explained to respondents that all responses would be completely anonymous, neither being identified by name nor by school.
3.7 Ethical Considerations

To avoid ethically compromising situations, a number of safeguards were undertaken. All interview participants were guaranteed anonymity and reassured that participation was voluntary and could be terminated at any time without consequence. No participants were subjected to stressful or unpleasant situations (Neuman, 2000). On the contrary, most participants commented that they had enjoyed the interview experience. All participants were fully informed of the aims of the study; no deception was employed at any stage (Neuman, 2000). Informed consent was secured from each interviewee prior to interview commencement and approval of each transcript was obtained before analysis of the data began. All questionnaires were anonymous, with no identifying information required. Pseudonyms were employed for all participants, including schools and the district involved. Audio recordings and transcripts have been secured to ensure confidentiality. All participants, either individually in the case of interview participants or collectively as with schools who participated in the second phase, have been offered a summary of the findings (Neuman, 2000).

3.8 Conclusion

This chapter has been concerned with the methodology employed throughout this study. It began with an explanation for using a mixed mode approach, identified the target and defined populations of the study, and then went on to describe the procedures followed during the investigation. Specifically, the interview procedure and an analysis of the interview findings were presented. Following this, the questionnaire construction and distribution process were explained. Lastly, a number of ethical issues were considered. The next chapter evaluates the relative quality of the quantitative data and presents a summary of the questionnaire results.
CHAPTER FOUR: RESULTS

4.1 Introduction
This chapter presents the questionnaire results from the second phase of the study. It begins with a statement regarding coding and data entry for the questionnaires, followed by an acknowledgement of the general quality of this quantitative data in terms of both reliability and validity. Results are then organised around the major topics addressed in the questionnaire, topics that were based on the literature and the conceptual model developed in Chapter Two.

1. Sectors Introducing Major Curriculum Change
2. General Feelings Towards Curriculum Change
3. Self-efficacy
4. Types of Support Accessed
5. Types of Support Considered Most Useful
6. Action Research
7. Impediments to Change

Data in each section is presented in relation to the Combined Data for all respondents, Teacher age (‘Under 50 yrs old’, ‘Over 50 yrs old’), Number of years teaching (‘Under 20 yrs teaching’, ‘Over 20 yrs teaching’), and School context (‘Innovative’, ‘Non-innovative’). Given the relatively low number of respondents, no formal statistical tests of difference are carried out, but instead interpreted descriptively by way of tables and graphs. Those findings referred to in the text are bolded in the tables to allow for easy reference. An analysis of this data can be found in the next chapter, ‘Chapter Five: Analysis and Discussion’.
4.2 Quality of the Questionnaire Data

4.2.1 Coding and Data Entry

After responses were coded and entered into the database, they were checked for errors in terms of miscodes and missing items. In addition, several questionnaires were randomly selected and their data were rechecked for accuracy. No errors were identified. However, eleven questionnaires were found to have some degree of missing data (11/54 = 20%). Seven respondents omitted demographic information, three respondents missed one or two individual responses, and one respondent failed to complete an entire page (‘attitude’, ‘extent take on change’, ‘confidence’, ‘success’, and ‘impediments to change’). Given the low rate of response, all of these respondents were included in the analysis, however those without demographics are not represented in the categories for which they failed to provide information.

School Context Factors

As discussed earlier, it is now widely acknowledged that some schools do manage change more effectively than others (Ridden, 1991). These ‘innovative’ or ‘lighthouse’ schools are thought to seek out new ways to improve the educational experiences of their students through greater experimentation (Snyder et al. 1992), more collaboration (Geijssel et al. 2001) and widespread participation and leadership among the school community (Lucas, 1991). Therefore, in an attempt to identify influential school context factors and in keeping with the conceptual model developed earlier, comparisons will be made between ‘innovative’ and ‘non-innovative’ schools.
Schools were coded *innovative* if respondents indicated ‘agree’ or ‘strongly agree’ to the statement ‘My current school in innovative’. Schools were coded *non-innovative* if respondents indicated ‘strongly disagree’, ‘disagree’, or ‘neither agree or disagree’ with the statement. As this is a subjective measure of ‘innovativeness’ on the part of respondents, these categories do need to be considered with some caution. However, based on theory related to ‘lighthouse’ and ‘effective’ schools, this response was compared with other predictors of ‘innovativeness’ included in the questionnaire, including ‘parental involvement’ and ‘ongoing staff development’ (Wideen & Pye, 1994), ‘leadership opportunities at all levels’ (Lucas, 1991), and ‘supportive principal/administration’ (Geijsel et al. 2001). On each of these measures the ‘innovative’ schools received consistently higher means than ‘non-innovative’ schools, as shown in Table 4, indicating some level of reliability for the categories.

<table>
<thead>
<tr>
<th>Type of school</th>
<th>Parental Involvement</th>
<th>Ongoing staff development</th>
<th>Leadership at all levels</th>
<th>Supportive Principal &amp; Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Combined data</strong></td>
<td>Mean = 3.0</td>
<td>Mean = 3.6</td>
<td>Mean = 3.4</td>
<td>Mean = 3.9</td>
</tr>
<tr>
<td>N=54</td>
<td>s.d. = 0.92</td>
<td>s.d. = 0.92</td>
<td>s.d. = 1.07</td>
<td>s.d. = 1.01</td>
</tr>
<tr>
<td><strong>Innovative</strong></td>
<td>Mean = 3.3</td>
<td>Mean = 4.0</td>
<td>Mean = 3.7</td>
<td>Mean = 4.2</td>
</tr>
<tr>
<td>N=31</td>
<td>s.d. = 0.9</td>
<td>s.d. = 0.7</td>
<td>s.d. = 0.8</td>
<td>s.d. = 0.7</td>
</tr>
<tr>
<td><strong>Non-innovative</strong></td>
<td>Mean = 2.6</td>
<td>Mean = 3.0</td>
<td>Mean = 2.8</td>
<td>Mean = 3.3</td>
</tr>
<tr>
<td>N=23</td>
<td>s.d. = 0.8</td>
<td>s.d. = 0.9</td>
<td>s.d. = 1.1</td>
<td>s.d. = 1.1</td>
</tr>
</tbody>
</table>

NB: 1.0=strongly disagree 3.0= neither agree nor disagree 5.0=strongly agree

**Table 4: Current school context- innovative versus non-innovative schools**
Teacher Characteristic Factors

Preliminary analysis revealed very low numbers of responses in some categories, due in part to missing data, which subsequently led to the combining of some groups. Specifically, the age group categories ‘20-25 years old’, ‘26-35 years old’ and ‘36-49 years old’ were collapsed into an ‘Under 50 years old’ group (n=34). This group was compared with the ‘50 years or more’ group (n=19).

Similarly, the number of years teaching categories ‘0 to 5 years teaching’, ‘6 to 12 years teaching’ and ‘13 to 19 years teaching’ were combined to form an ‘Under 20 years teaching’ (n=25) category. This group was later compared with the ‘20 years or more teaching’ group (n=23).

The year level taught by teachers were recategorised as ‘Junior’, ‘Middle’, ‘Senior’, ‘Specialist’, and ‘More than 2 levels’, as very few responses were received that fit the individualised categories ‘Junior/Specialist’, ‘Middle/Specialist’, ‘Senior/Specialist’, ‘Junior/Middle’ and ‘Middle/Senior’. Eventually, ‘Teaching Level’ was eliminated from analysis altogether as the number of responses for most individual groups was still deemed too small to warrant further analysis. Likewise, with only six male responses (11% of the sample), and one of those with considerable ‘missing data’, it is also inappropriate to comment on the data from this group. This creates a limitation in terms of generalisability with respect to gender. Considering previous research has suggested ‘gender’ as an even more significant characteristic than age in accounting for attitudes and the ability to cope with change (Datnow, 2000), this would appear to be an area requiring much further research.
4.2.2 Reliability and Validity

Response rates for mail surveys are notoriously low; often 10 to 50 percent is not uncommon (Neuman, 2000). For this reason several techniques to improve the response rate were employed in the present study, including stamped self-addressed return envelopes with each survey, sending two follow-up reminder letters, and not distributing the surveys during a major holiday period. In addition, questionnaires were neat, easy to read and within the four page limit suggested by Neuman (2000). Nevertheless, a low response rate is of some concern for the current study, with only 36% (54/150) of possible respondents returning a questionnaire within the time available. Further, only 80% (43/54) of questionnaires were returned fully complete (i.e. no missing data). Therefore, just over fifty respondents represented the approximately 750 primary teachers working within the selected district (defined population) and 7,500 primary teachers within the state (target population), resulting in considerable problems in terms of the representativeness of this data. It should be acknowledged that the questionnaire items were only subjected to minimal statistical analyses prior to distribution so there may be limitations related to reliability. However, by undertaking a series of pilot studies with teachers within the same target population a reasonable level of face validity has been achieved. Likewise, by adopting constructs identified in the literature (e.g. Geijsel et al. 2001) a reasonable level of concurrent validity has been ensured. On the whole however, the quality of these data have been compromised in terms of the overall reliability and validity of the study, making it difficult to generalise findings from this sample to the target population.
4.3 Questionnaire Results

4.3.1. Sectors Influencing Major Curriculum Change

Combined Data (n=54)

![Bar chart showing percentages of teachers who consider each sector influential.](chart)

**Figure 4: Sectors introducing major curriculum change (Combined data)**

From Figure 4, the most influential sectors in terms of the introduction of curriculum changes appear to be the ‘school’, the ‘principal/administration’ and ‘team/block collaboration’. School-based planning and decision-making emerge as the most significant origins for curriculum change. While the ‘Education Department of WA’ appeared to have a substantial impact, no doubt through the introduction of the Curriculum Framework, it was the school-based initiatives foremost in the minds of these teachers. This is consistent with the interview findings. Interestingly, no respondents acknowledged an influence by ‘parents/school council’ in the introduction of curriculum change. This is consistent with the perceived level of ‘parental involvement and support in the schools’ (mean=3.0, s.d.=0.92), indicating ‘neither agree nor disagree’.
<table>
<thead>
<tr>
<th>Categories</th>
<th>Yourself</th>
<th>Team or block</th>
<th>Whole school</th>
<th>Principal or administration</th>
<th>Parents or School council</th>
<th>District Office</th>
<th>Ed. Dept. WA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 50 yrs old</td>
<td>32.4%</td>
<td>73.5%</td>
<td>85.3%</td>
<td>76.5%</td>
<td>0.0%</td>
<td>35.3%</td>
<td>64.7%</td>
</tr>
<tr>
<td>N=34</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 50 yrs old</td>
<td>31.6%</td>
<td>63.2%</td>
<td>68.4%</td>
<td>73.7%</td>
<td>0.0%</td>
<td>63.2%</td>
<td>68.4%</td>
</tr>
<tr>
<td>N=19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Years Teaching</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 20yrs teaching</td>
<td>28.0%</td>
<td>68.0%</td>
<td>72.0%</td>
<td>76.0%</td>
<td>0.0%</td>
<td>32.0%</td>
<td>64.0%</td>
</tr>
<tr>
<td>N=25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 20yrs teaching</td>
<td>34.8%</td>
<td>69.6%</td>
<td>91.3%</td>
<td>87.0%</td>
<td>0.0%</td>
<td>69.6%</td>
<td>69.6%</td>
</tr>
<tr>
<td>N=23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>School Context</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘Innovative’</td>
<td>32.3%</td>
<td>80.6%</td>
<td>83.9%</td>
<td>87.1%</td>
<td>0.0%</td>
<td>54.8%</td>
<td>74.2%</td>
</tr>
<tr>
<td>N=31</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘Non-innovative’</td>
<td>30.4%</td>
<td>56.5%</td>
<td>73.9%</td>
<td>60.9%</td>
<td>0.0%</td>
<td>30.4%</td>
<td>52.2%</td>
</tr>
<tr>
<td>N=23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 5: Sectors introducing major curriculum change**

**Teacher Age**

The data in Table 5 seem to show no substantial differences in teachers’ perceptions of the sectors responsible for the introduction of major curriculum changes based on age, with the exception of the perceived influence of the District Office.
Years Teaching

The data in Table 5 seem to show no substantial differences in teachers' perceptions of the sectors responsible for the introduction of major curriculum changes based on the number of years teaching, with the exception again of the District Office.

School Context

The data in Table 5 seem to show several important differences in teachers' perceptions of the sectors responsible for the introduction of major curriculum changes based on school context. While little difference appear to exist between 'innovative' and 'non-innovative' schools in terms of individual contribution (as shown by the 'yourself' responses), important differences exist in the relative influence of school-based decision-making (as shown by the 'team/block' and 'principal/administration' responses). However, those teachers in the 'innovative' schools also consider both District Office and the Education Department quite influential.
4.3.2 General Feelings Towards Curriculum Change

Combined Data (n=54)

![Bar Chart: Attitude towards curriculum change (Combined data)]

**Figure 5: Attitude towards curriculum change (Combined data)**

From Figure 5 it would appear that most teachers are open to most curriculum changes, with approximately 5% resistant to change. Overall, more than 70% of respondents indicated a positive attitude towards change, that is ‘Open to most changes’ and ‘Enthusiastic towards change’.

63
### Table 6: Attitudes towards curriculum change

**Teacher Age**

From Table 6, very little difference was found in the proportions of ‘Under 50 years old’ and ‘Over 50 years old’ respondents who indicated they were ‘resistant to change’ or ‘enthusiastic towards change’ (the two extreme responses), however a substantial difference appeared to emerge with the other two responses. Older teachers were far more ‘cautious of change’ and more younger teachers were ‘open to change’.

**Years Teaching**

<table>
<thead>
<tr>
<th>School Context</th>
<th>Resistant to change</th>
<th>Cautious of change</th>
<th>Open to most changes</th>
<th>Enthusiastic towards change</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Innovative’</td>
<td>3.2%</td>
<td>16.1%</td>
<td>67.7%</td>
<td>12.9%</td>
</tr>
<tr>
<td>‘Non-innovative’</td>
<td>9.1%</td>
<td>31.8%</td>
<td>50.0%</td>
<td>9.1%</td>
</tr>
</tbody>
</table>
The previous finding, in terms of ‘cautious of change’ and ‘open to change’ was replicated by the number of years teaching. Contrary to expectation however, a far greater proportion (double) of teachers with more experience (‘Over 20 years teaching’) indicated they were ‘enthusiastic towards change’, as shown in Table 6.

School Context

From Table 6 it appears almost three times as many ‘non-innovative’ school respondents indicated they were ‘resistant to change’ than respondents from ‘innovative’ schools. Also, almost twice as many ‘non-innovative’ school respondents indicated they were ‘cautious of change’ than their ‘innovative’ school counterparts.

Combined Data

![Figure 6: Extent of taking on change (Combined data)](image)

As would be expected based on the previous results, Figure 6 suggests that most teachers take changes and adapt them (>70%), with no teachers ignoring initiatives totally (0%).
### Table 7: Extent of taking on curriculum change

#### Teacher Age

An important finding in relation to teacher age is that almost twice as many older teachers (‘Over 50 years old’) than younger teachers (‘Under 50 years old’) indicated they ‘adopt changes as presented’, as shown in Table 7. Most younger teachers (76.7%) indicated they ‘take some ideas and adapt them’.
Years Teaching

This data very closely mirrored that of teacher age with very little deviation in trends, as indicated by Table 7.

School Context

From Table 7, the school context classification did appear to produce differences. No teachers from 'innovative' schools indicated they 'only superficially' implemented changes as compared to nearly 10% of 'non-innovative' school respondents. In regards to the other responses, these mirrored the results found in the teacher age and years teaching categories that may indicate 'innovative' schools are made up of younger, less experienced teachers. On further analysis it was discovered the 'innovative' schools in this sample were made up of approximately even numbers of older (12/31) and younger (18/31) teachers and with more (14/31) and less (14/31) teaching experience (Note: One respondent from an 'innovative' school did not indicate age group, and three respondents failed to indicate number of years teaching).

4.3.3 Self-Efficacy

Combined Data

![Confidence in attempting new initiatives](image)

**Figure 7: Confidence in attempting new initiatives (Combined data)**

67
While almost half the combined sample were ‘somewhat confident’ of attempting new initiatives almost one third responded it ‘depends on the area’ of the initiative, as indicated in Figure 7.

![Figure 8: Success with previous initiatives (Combined data)](image)

As expected, this is mirrored by previous experiences of success; with more than half of the respondents indicating they had been ‘somewhat successful’ with past initiatives, and more than one quarter responding that it ‘depends on the area’, as shown in Figure 8. From preliminary analysis of this data it appears that ‘level of success with previous initiatives’ does influence a respondent’s subsequent ‘confidence in attempting new initiatives’.

The relationships between these measures have been illustrated in the following diagrams, ‘Figure 9: Level of confidence compared with level of success’ and ‘Figure 10: Attitude towards change compared with extent of change’.

68
Figure 9: Level of confidence compared with level of success

N.B.  
Response 1: Depends on the area  
Response 2: Very confident/successful  
Response 3: Somewhat confident/successful  
Response 4: Not at all confident/successful

This finding is consistent with previous research on ‘self-efficacy’ (Cavanagh & Dellar, 2001; Landy, 1989). Based on further statistical analysis of the combined data, it was found a correlation of 0.99(rho) exists between the level of confidence and the perceived level of success of these respondents. Given the small sample size, this correlation is most likely an artefact. There also seems to be a correlation between a respondent’s attitude towards change and the extent to which they take on change. Intuitively this makes sense and it is consistent with models proposing a teacher’s attitude does influence the implementation process (Geijsel et al. 2001; Fullan, 1991).

Figure 10: Attitude towards change compared with extent of change

N.B.  
Response 1: Resistant to change/Take on change not at all  
Response 2: Cautious of change/Take on change superficially  
Response 3: Open to change/Take on ideas and adapt  
Response 4: Enthusiastic towards change/Adopt changes as presented
**CONFIDENCE**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Confidence in attempting new initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Depends on area</td>
</tr>
<tr>
<td><strong>Teacher Age</strong></td>
<td></td>
</tr>
<tr>
<td>Under 50 yrs old</td>
<td>27.3%</td>
</tr>
<tr>
<td>N=34</td>
<td></td>
</tr>
<tr>
<td>Over 50 yrs old</td>
<td>26.3%</td>
</tr>
<tr>
<td>N=19</td>
<td></td>
</tr>
<tr>
<td><strong>Years Teaching</strong></td>
<td></td>
</tr>
<tr>
<td>Under 20yrs teaching</td>
<td>25.0%</td>
</tr>
<tr>
<td>N=25</td>
<td></td>
</tr>
<tr>
<td>Over 20yrs teaching</td>
<td>34.8%</td>
</tr>
<tr>
<td>N=23</td>
<td></td>
</tr>
<tr>
<td><strong>School Context</strong></td>
<td></td>
</tr>
<tr>
<td>‘Innovative’</td>
<td>29.0%</td>
</tr>
<tr>
<td>N=31</td>
<td></td>
</tr>
<tr>
<td>‘Non-innovative’</td>
<td>27.3%</td>
</tr>
<tr>
<td>N=23</td>
<td></td>
</tr>
</tbody>
</table>

**Table 8: Confidence in attempting new initiatives**

**Teacher Age**

From Table 8 it appears no substantial difference exists between the ‘confidence’ of younger or older respondents.
Years Teaching

From the data in Table 8, no substantial difference was observed in the level of ‘confidence’ on the basis of the number of years teaching, with one exception. Twice as many of the more experienced group (‘Over 20 years teaching) responded that they were ‘not at all’ confident in attempting new initiatives.

School Context

Large differences were found based on the school context, as shown in Table 8. Respondents from ‘Innovative’ schools appeared to be more than twice as likely to indicate they are ‘very confident’ than respondents from ‘Non-innovative’ schools. And three times as many respondents from ‘Non-innovative’ schools indicated that they were ‘not at all’ confident in attempting a new initiative.
### Success with previous initiatives

<table>
<thead>
<tr>
<th>Categories</th>
<th>Depends on area</th>
<th>Very successful</th>
<th>Somewhat successful</th>
<th>Not at all successful</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 50 yrs old</td>
<td>24.2%</td>
<td>18.2%</td>
<td>57.6%</td>
<td>0.0%</td>
</tr>
<tr>
<td>N=34</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 50 yrs old</td>
<td>21.1%</td>
<td>15.8%</td>
<td>63.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>N=19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Years Teaching</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 20yrs teaching</td>
<td>33.3%</td>
<td>16.7%</td>
<td>50.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>N=25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 20yrs teaching</td>
<td>17.4%</td>
<td>17.4%</td>
<td>65.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>N=23</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>School Context</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘Innovative’</td>
<td>25.8%</td>
<td>19.4%</td>
<td>54.8%</td>
<td>0.0%</td>
</tr>
<tr>
<td>N=31</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘Non-innovative’</td>
<td>22.7%</td>
<td>13.6%</td>
<td>63.6%</td>
<td>0.0%</td>
</tr>
<tr>
<td>N=23</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 9: Success with previous initiatives**

**Teacher Age**

From Table 9 it seems very little difference exists between the different age groups in terms of success with past initiatives. An interesting observation is that none of the respondents indicated they had been ‘not at all successful’.
Years Teaching

A greater percentage of respondents with more teaching experience (‘Over 20 years teaching’) indicated they had been ‘somewhat successful’ with past initiatives, whereas nearly twice as many of the less experienced respondents (‘Under 20 years teaching’) indicated their past success ‘depended on the area’ of the initiative, as illustrated in Table 9.

School Context

From Table 9, there appears to be no substantial differences in terms of ‘success’ based on school context.

4.3.4 Types of Support Accessed

Combined Data

![Bar chart showing percentages of different types of support accessed by teachers. The chart includes categories such as speaking with other teachers, released to reflect, practical strategies, etc.]

Figure 11: Types of support accessed by teachers (Combined data)
As shown in Figure 11, the types of support that appear to be accessed by most respondents (>80%) include ‘informally speaking to other teachers’, ‘team block meetings’, ‘one-off workshops’ and materials both commercially produced and those distributed by the Education Department of Western Australia. ‘Theory’ and ‘practical strategies’ were also identified as being accessed by most respondents. The types of support that appear to be accessed by the least number of respondents (<30%) included ‘interstate and international’ observational visits and ‘university postgraduate courses’.

Of particular interest is the experience with ‘reflection’ as a means of support. From Figure 11 it would seem schools are actively encouraging teachers to engage in meaningful and constructive ‘reflection’ as suggested by recent research literature (e.g. Jennings, 2001; Remillard, 1999). More than 60% of respondents have engaged in ‘personal reflection/professional journal’ and a similar number have been provided with ‘release time’ to reflect on changes and think about applications. It would be interesting to assess if this has been a recent shift in school priorities or a consistent practice.
| Categories          | Speaking to other teachers | Released from class to reflect | Theory about the change | Practical strategies | Observational visits (state) | Observational visits (school) | Websites | Network meetings | Personal reflections/journal | Team/block meetings | Three day workshops | One-off workshops | External consultant | Family and friends | School psychologist | District Office | University courses | Curriculum materials (EDP/AI) | Commonwealth resources | Professional Associations | Union |
|---------------------|-----------------------------|-------------------------------|-------------------------|----------------------|-----------------------|-------------------------------|----------------|------------------|-----------------------------|-------------------|-------------------|-----------------|---------------------|-----------------|-----------------|-----------------|------------------|-----------------------|------------------------|-----------------------------|
| **Teacher Age**     |                             |                               |                         |                      |                       |                               |               |                  |                             |                   |                   |                 |                     |                 |                 |                 |                  |                       |                        |                             |
| Under 50 yrs (old N=34) | 100 | 56 | 88 | 97 | 35 | 12 | 29 | 65 | 59 | 88 | 47 | 88 | 35 | 56 | 47 | 65 | 21 | 97 | 97 | 41 | 29 |
| Over 50 yrs (old N=19) | 95 | 68 | 95 | 89 | 42 | 16 | 58 | 68 | 79 | 100 | 74 | 100 | 53 | 68 | 53 | 84 | 37 | 100 | 89 | 68 | 37 |
| **Years Teaching**  |                             |                               |                         |                      |                       |                               |               |                  |                             |                   |                   |                 |                     |                 |                 |                 |                  |                       |                        |                             |
| Under 20 yrs (teacher N=25) | 100 | 52 | 92 | 96 | 44 | 12 | 40 | 60 | 68 | 88 | 48 | 88 | 40 | 64 | 52 | 56 | 20 | 96 | 96 | 40 | 28 |
| Over 20 yrs (teacher N=23) | 100 | 70 | 87 | 96 | 35 | 13 | 39 | 70 | 61 | 96 | 61 | 96 | 39 | 57 | 48 | 91 | 30 | 100 | 91 | 57 | 35 |
| **School Context**  |                             |                               |                         |                      |                       |                               |               |                  |                             |                   |                   |                 |                     |                 |                 |                 |                  |                       |                        |                             |
| Innovative’ (N=31)  | 100 | 71 | 94 | 97 | 48 | 23 | 65 | 77 | 74 | 100 | 74 | 100 | 52 | 68 | 68 | 90 | 39 | 100 | 94 | 61 | 35 |
| Non-Innovative’ (N=23) | 96 | 48 | 87 | 91 | 26 | 4 | 9 | 52 | 57 | 83 | 35 | 83 | 30 | 52 | 26 | 48 | 13 | 96 | 96 | 39 | 30 |

Table 10: Types of support accessed by categories
Teacher Age

From Table 10, it appears no substantial differences exist based on the age of respondents, except that double the percentage of older respondents (‘Over 50 years old’) had accessed websites as a means of support compared to the younger (‘Under 50 years old’) teachers.

Years Teaching

Similarly, from Table 10, no substantial difference seems to exist on the basis of the number of years teaching, except that almost double the percentage of ‘Over 20 years teaching’ respondents had accessed District Office sessions compared to ‘Under 20 years teaching’ respondents.

School Context

The most striking observation of these data is that respondents from ‘innovative’ schools seem to have accessed more types of support overall. In nearly every category of support, teachers from ‘innovative’ schools have a higher percentage of access, as shown in Table 10. Of particular interest is the percentage of teachers accessing ‘observational visits’ to other schools. Nearly half of respondents from ‘innovative’ schools have gone to other schools in the state compared with only one quarter of ‘non-innovative’ school respondents. Similarly, nearly 25% of respondents from ‘innovative’ schools have visited schools in other states or countries compared with less that 5% from the ‘non-innovative’ schools.
An equally dramatic difference is shown by the percentage of respondents from ‘innovative’ schools which access ‘websites’ as a means of support (65%) compared with those from ‘non-innovative’ schools (9%), as shown in Table 10. Perhaps a different emphasis is placed on the use of technology in their relative school contexts. Similarly, it has been suggested (Geijsel et al. 2001) that innovative schools are more collaborative; this is reflected in the proportion of respondents accessing ‘network meetings’ (‘innovative’=77%, ‘non-innovative’=52%) and ‘team or block meetings’ (‘innovative’=100%, ‘non-innovative’=83%) as a source of support.

From Table 10 it would appear other types of support disproportionately accessed by ‘innovative’ schools include ‘release time from class to reflect’, ‘3 day workshops’, ‘school psychologist’, ‘district office sessions’, and ‘university courses’.
4.3.5 Types of Support Considered Most Useful

**Combined Data (N=54)**

![Bar chart showing the levels of usefulness for different types of support](image)

NB: 1.0=strongly disagree, 3.0=neither agree nor disagree, 5.0=strongly agree

**Figure 12: Levels of usefulness for different means of support (Combined data)**

From Figure 12, it appears the most useful means of support (max=5.0) from those accessed by respondents were ‘practical strategies’ (mode=5.0) and ‘interstate and international visits’ (mode=5.0). Interestingly, the majority of respondents have not accessed the latter. Most respondents indicated that many of the other means of support were generally ‘useful’ (mode=4.0). The support considered least useful was the ‘school psychologist’ (mode=2.0), ‘university post graduate courses’ (mode=3.0) and ‘information regarding theory’ (mode=3.0). While consistent with previous findings, it has been suggested long-term changes are unlikely without a theoretical grounding in the curriculum change (Fullan, 1991).
| Categories                        | Speaking to other teachers | Released from class to reflect | Theory about the change | Practical strategies | Observational visits (state) | Observational visits (international) | Websites | Network meetings | Personal reflections/journal | Team/block meetings | Three-day workshops | One-off workshops | External consultant | Family and friends | School psychologist | District Office | University courses | Curriculum materials | EDWA | Commercial resources | Professional Associations | Union |
|-----------------------------------|-----------------------------|-------------------------------|-------------------------|----------------------|----------------------|-------------------------------|---------|-----------------|---------------------------|-------------------|---------------------|-----------------|----------------------|-------------------|-----------------|-----------------|------------------|----------------|---------------------|----------------------|-------|
| Teacher Age (mean; s.d.)          |                              |                               |                         |                      |                      |                               |         |                 |                            |                  |                     |                 |                      |                  |                 |                 |                 |                 |                     |                     |       |
| Under 50 yrs old N=34             | 4.3                         | 3.6                           | 2.6                     | 4.2                  | 4.2                  | 3.5                           | 3.2     | 3.3             | 4.0                        | 4.1               | 3.7                 | 3.8             | 3.5                 | 2.8              | 3.4             | 2.9             | 3.4              | 3.5             | 3.6                 | 2.6                 |       |
|                                  | 0.7                         | 1.2                           | 1.0                     | 0.9                  | 0.6                  | 1.7                           | 0.9     | 1.1             | 1.2                        | 1.0               | 0.6                 | 0.7             | 0.4                 | 0.8              | 1.2             | 1.0             | 1.0              | 1.2             | 1.0                 | 0.9                 | 1.1   |
| Over 50 yrs old N=19              | 4.2                         | 3.7                           | 3.1                     | 4.1                  | 3.5                  | 2.7                           | 2.8     | 3.3             | 4.1                        | 3.8               | 3.3                 | 2.5             | 3.9                 | 2.5              | 3.2             | 2.9             | 3.2              | 3.8             | 3.4                 | 3.6                 | 3.6   |
|                                  | 1.1                         | 1.3                           | 1.3                     | 1.0                  | 1.5                  | 1.7                           | 1.2     | 0.8             | 1.3                        | 0.9               | 1.1                 | 1.0             | 0.9                 | 1.0              | 1.4             | 0.9             | 1.0              | 0.9             | 1.3                 | 0.7                 |       |
| Years Teaching (mean; s.d.)       |                              |                               |                         |                      |                      |                               |         |                 |                            |                  |                     |                 |                      |                  |                 |                 |                 |                 |                     |                     |       |
| Under 20 yrs teach. N=25          | 4.2                         | 4.1                           | 2.5                     | 4.0                  | 4.3                  | 4.0                           | 3.1     | 4.3             | 3.2                        | 4.1               | 3.7                 | 3.7             | 3.7                 | 2.7              | 3.4             | 3.5             | 3.4              | 3.6             | 3.4                 | 3.2                 | 3.2   |
|                                  | 0.9                         | 1.0                           | 1.1                     | 1.0                  | 0.6                  | 1.4                           | 1.1     | 0.9             | 1.2                        | 1.1               | 0.6                 | 0.7             | 0.5                 | 0.7              | 1.1             | 1.1             | 0.5              | 1.2             | 1.0                 | 0.8                 | 0.8   |
| Over 20 yrs teach. N=22           | 4.5                         | 3.7                           | 3.1                     | 4.4                  | 3.8                  | 3.7                           | 3.3     | 3.9             | 3.6                        | 4.1               | 3.6                 | 3.1             | 3.6                 | 3.1              | 3.4             | 3.4             | 3.5              | 3.2             | 3.2                 | 2.9                 |       |
|                                  | 0.6                         | 1.3                           | 1.2                     | 0.8                  | 1.4                  | 1.9                           | 1.1     | 0.9             | 1.2                        | 0.1               | 0.6                 | 0.9             | 0.7                 | 1.0              | 1.3             | 1.0             | 0.8              | 1.0             | 1.3                 | 1.3                 |       |
| School Context (mean; s.d.)       |                              |                               |                         |                      |                      |                               |         |                 |                            |                  |                     |                 |                      |                  |                 |                 |                 |                 |                     |                     |       |
| "Innovative" N=31                 | 4.4                         | 3.9                           | 3.1                     | 4.6                  | 4.2                  | 3.7                           | 3.2     | 3.9             | 3.2                        | 4.2               | 3.5                 | 3.4             | 3.8                 | 2.7              | 3.4             | 3.0             | 3.4              | 3.9             | 3.6                 | 3.0                 |       |
|                                  | 0.7                         | 1.1                           | 1.2                     | 0.5                  | 0.8                  | 1.6                           | 1.1     | 1.1             | 1.0                        | 0.8               | 0.7                 | 0.6             | 0.9                 | 1.1              | 1.0             | 0.9             | 1.0              | 0.7             | 1.0                 | 1.0                 |       |
| "Non-innovative" N=23             | 4.2                         | 3.4                           | 2.4                     | 3.5                  | 3.3                  | 1.0                           | 2.5     | 3.9             | 3.4                        | 3.8               | 3.6                 | 2.7             | 3.5                 | 2.8              | 3.3             | 2.7             | 3.2              | 3.3             | 3.2                 | 3.0                 |       |
|                                  | 1.0                         | 1.4                           | 1.0                     | 1.4                  | 0.0                  | 1.5                           | 0.9     | 1.5             | 1.2                        | 1.0               | 0.9                 | 1.3             | 0.8                 | 1.6              | 1.0             | 1.3             | 1.3              | 1.1             | 1.2                 | 1.2                 |       |

Table 11: Level of usefulness for different types of support
(Mean; Standard Deviation)
Teacher Age

From Table 11, no substantial differences appear to exist between the perceived levels of usefulness of the different types of support on the basis of age, with the exception of ‘external consultant demonstrations’. Younger respondents tended to rate this support more useful (mean=3.8, s.d.=0.4) than older teachers (mean=2.5, s.d.=0.9).

Years Teaching

From Table 11, no substantial differences in the perceived usefulness of the different types of support were identified based on the number of years teaching.

School Context

The only substantial difference between respondents from ‘innovative’ and ‘non-innovative’ schools in regard to the support they consider most useful was the ‘interstate and international observational visits’, as shown by Table 11. While only one respondent from the ‘non-innovative’ schools had accessed this type of support, respondents from ‘innovative’ schools have rated it as one of the more useful (mean=3.7, s.d.=1.6). Aside from this observation, there was very little difference in the types of support considered useful when categorised by school context.
4.3.6 Action Research

Considering the current interest in action research as a means of professional development throughout the literature, it was surprising to find only 30% (16/54) of respondents had undertaken the action research process. The following results are based on the responses of participants that have undergone the action research process as a means of support.

Combined Data (N=16)

![Combined Data Graph](image)

NB: 1.0=strongly disagree, 3.0=neither agree nor disagree, 5.0=strongly agree

**Figure 13: Perceptions of action research (Combined Data)**

Very little can be concluded on the basis of these data given the small sample size (N=16), however a number of cautious observations can be made. From Figure 13 it appears most respondents agree that action research is 'useful' (mode=4.0) as a means of support in dealing with curriculum change. In addition, most respondents disagreed that the process was difficult (mode=2.0). While it seems the level of 'effectiveness' is ambiguous (mode=3.0), most respondents indicated they would 'like to undertake more' action research in the future (mode=4.0).
<table>
<thead>
<tr>
<th>Categories</th>
<th>Useful</th>
<th>Difficult</th>
<th>Effective</th>
<th>Like to undertake more</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 50 yrs old</td>
<td>Mean = 3.5</td>
<td>Mean = 2.9</td>
<td>Mean = 3.0</td>
<td>Mean = 3.0</td>
</tr>
<tr>
<td>N=11</td>
<td>s.d. = 0.7</td>
<td>s.d. = 0.8</td>
<td>s.d. = 0.6</td>
<td>s.d. = 1.0</td>
</tr>
<tr>
<td>Over 50 yrs old</td>
<td>Mean = 4.2</td>
<td>Mean = 2.2</td>
<td>Mean = 3.4</td>
<td>Mean = 3.2</td>
</tr>
<tr>
<td>N=5</td>
<td>s.d. = 0.4</td>
<td>s.d. = 1.0</td>
<td>s.d. = 1.0</td>
<td>s.d. = 1.3</td>
</tr>
<tr>
<td><strong>Years Teaching</strong> (missing data=2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 20yrs teaching</td>
<td>Mean = 3.8</td>
<td>Mean = 2.8</td>
<td>Mean = 3.0</td>
<td>Mean = 3.2</td>
</tr>
<tr>
<td>N=5</td>
<td>s.d. = 0.4</td>
<td>s.d. = 0.8</td>
<td>s.d. = 0.6</td>
<td>s.d. = 1.0</td>
</tr>
<tr>
<td>Over 20yrs teaching</td>
<td>Mean = 3.7</td>
<td>Mean = 2.6</td>
<td>Mean = 3.3</td>
<td>Mean = 3.2</td>
</tr>
<tr>
<td>N=9</td>
<td>s.d. = 0.8</td>
<td>s.d. = 1.0</td>
<td>s.d. = 0.8</td>
<td>s.d. = 1.1</td>
</tr>
<tr>
<td><strong>School Context</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘Innovative’</td>
<td>Mean = 3.8</td>
<td>Mean = 2.8</td>
<td>Mean = 3.1</td>
<td>Mean = 2.9</td>
</tr>
<tr>
<td>N=12</td>
<td>s.d. = 0.6</td>
<td>s.d. = 1.0</td>
<td>s.d. = 0.9</td>
<td>s.d. = 1.3</td>
</tr>
<tr>
<td>‘Non-innovative’</td>
<td>Mean = 3.3</td>
<td>Mean = 2.5</td>
<td>Mean = 3.3</td>
<td>Mean = 3.5</td>
</tr>
<tr>
<td>N=4</td>
<td>s.d. = 0.8</td>
<td>s.d. = 0.5</td>
<td>s.d. = 0.4</td>
<td>s.d. = 0.5</td>
</tr>
</tbody>
</table>

NB: 1.0 = strongly disagree, 3.0 = neither agree nor disagree, 5.0 = strongly agree

**Table 12: Attitudes towards action research**

**Teacher Age**

Surprisingly, approximately the same proportion in each age group had undergone the action research process (‘Under 50 years old’ 32%; ‘Over 50 years old’ 26%).

82
Years Teaching

Interestingly, a greater proportion of respondents who have been teaching for ‘Over 20 years’ (39%, 9/23) have taken part in action research than those who have been teaching for ‘Under 20 years’ (20%, 5/25). This is consistent with Burnaford’s (1996b) claim that teachers with more than 15 years experience prefer professional development activities more specific to their needs. Action research encourages this individualised approach.

School Context

It was also discovered that a higher proportion of teachers from ‘innovative’ schools (39%, 12/31) participated in action research than ‘non-innovative’ schools (17%, 4/23).

The data was useful in highlighting that few teachers in this study had at this time undertaken the action research process, it is therefore an area in which future research would be beneficial. Given the considerable effort involved in the process it would be valuable to assess its relative usefulness and effectiveness as a means of professional development.
4.3.7 Impediments to Change

Combined Data (N=54)

![Bar Chart]

*Figure 14: Factors impeding curriculum change (Combined Data)*

From Figure 14 it would appear the factors impeding change are led by ‘workload’ with most teachers (92.5%) indicating it was influential. Similarly, ‘school organisation’ (almost 70%) was also a significant factor. Interestingly, some teachers indicated their own ‘lack of motivation’ (15%) impedes the implementation of curriculum change. This finding is possibly related to the workload factor.
<table>
<thead>
<tr>
<th>Categories</th>
<th>School organisation</th>
<th>Workload</th>
<th>Insufficient funds for PD</th>
<th>Lack of PD in specific area</th>
<th>Lack of school resources</th>
<th>Limited time after school for PD</th>
<th>Class size/composition</th>
<th>Lack of personal understanding</th>
<th>Lack of personal motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher Age</strong> (missing data=1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 50 yrs old N=34</td>
<td>70%</td>
<td>94%</td>
<td>49%</td>
<td>55%</td>
<td>70%</td>
<td>67%</td>
<td>42%</td>
<td>21%</td>
<td>15%</td>
</tr>
<tr>
<td>Over 50 yrs old N=19</td>
<td>68%</td>
<td>90%</td>
<td>47%</td>
<td>47%</td>
<td>47%</td>
<td>42%</td>
<td>74%</td>
<td>16%</td>
<td>16%</td>
</tr>
<tr>
<td><strong>Years Teaching</strong> (missing data=6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 20 yrs teaching N=25</td>
<td>67%</td>
<td>92%</td>
<td>38%</td>
<td>50%</td>
<td>67%</td>
<td>58%</td>
<td>46%</td>
<td>17%</td>
<td>17%</td>
</tr>
<tr>
<td>Over 20 yrs teaching N=23</td>
<td>74%</td>
<td>91%</td>
<td>48%</td>
<td>44%</td>
<td>61%</td>
<td>52%</td>
<td>57%</td>
<td>22%</td>
<td>17%</td>
</tr>
<tr>
<td><strong>School Context</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'Innovative' N=31</td>
<td>74%</td>
<td>94%</td>
<td>42%</td>
<td>45%</td>
<td>68%</td>
<td>61%</td>
<td>58%</td>
<td>23%</td>
<td>10%</td>
</tr>
<tr>
<td>'Non-innovative' N=23</td>
<td>61%</td>
<td>87%</td>
<td>52%</td>
<td>57%</td>
<td>52%</td>
<td>48%</td>
<td>48%</td>
<td>13%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Table 13: Impediments to curriculum change
Teacher Age

From Table 13 it appears the most obvious difference in terms of impediments to change by teacher age is ‘class size and/or composition’. Almost twice the number of older teachers indicated this was a factor impeding change. On the other hand, a greater proportion of younger teachers indicated a ‘lack of resources’ and ‘limited time after school’ for professional development activities were factors preventing them from implementing changes.

Years Teaching

From Table 13 it appears no substantial differences emerged in the factors impeding change for the different level of teaching experience.

School Context

Few differences were observed when considering school context, as shown in Table 13. However, it was surprising that respondents from ‘innovative’ schools indicated ‘school organisation’ and ‘lack of school resources’ were impediments to change in a greater proportion than teachers from ‘non-innovative’ schools. This finding is counter-intuitive as it would be expected ‘innovative’ schools would develop a more flexible school setting to support initiatives as indicated by the ‘lighthouse’ literature.

4.4 Conclusion

This chapter has presented the questionnaire results from the second phase of the study. Each major topic addressed in the questionnaire has been presented in relation to four categories: the Combined data for all respondents, Teacher age, the Number of years teaching, and the School context. The following chapter provides an analysis of these data in terms of the research questions and conceptual model presented earlier.
CHAPTER FIVE: ANALYSIS AND DISCUSSION

5.1 Introduction

This chapter deals with the results presented in the previous section in relation to the literature and researcher expectations. It begins with a discussion of each of the research questions based on the questionnaire data, specifically the type of professional development activities currently being accessed by Western Australian teachers, the type of support they consider most useful and their general attitudes and responses to curriculum change. This is followed by a revision of the conceptual model presented previously. This conceptual model helps to explain the research question findings by addressing the issues of sectors introducing curriculum change, teacher characteristics and school context factors, and impediments to change. Finally, in light of these findings, the relative merits of the fidelity approach and more contemporary views on curriculum reform will be addressed.

5.2 Research Questions

5.2.1 Research Question One: What type of support are Western Australian primary school teachers accessing to deal with curriculum change?

Undoubtedly the type of support accessed by most respondents was ‘informally speaking to other teachers’. This is contrary to Fullan’s (1991) assertion that such interaction between teachers occurs relatively infrequently. Moreover, it seems ‘ongoing’ support throughout the implementation process, as recommended by researchers such as Fullan (1991) and Joyce and Showers (1995, cited in Joyce et al. 1999), is being informally provided by way of ‘team or block meetings’ and ‘network meetings’. Not surprisingly, this group of teachers considered both of these types of support among the most useful in terms of helping to deal with curriculum change.
This finding is consistent with literature concerning ‘collaboration’ as a means of support (e.g. Tafel & Fischer, 1996; Hargreaves & Fullan, 1998). Most respondents had also employed curriculum materials, either commercially produced or distributed by the Education Department, and undertaken ‘one-shot workshops’. Interestingly, these types of support are being widely accessed but not generally considered particularly useful.

Surprisingly, more than half the respondents had engaged in ‘reflection’ as a means of support, either by being released from class duties to think about changes or by making use of a professional journal. This finding is encouraging given recent support of this practice by education researchers in developing more critically reflective teachers (Wideen & Pye, 1994; Jennings, 2001).

The types of support accessed the least by respondents included ‘university postgraduate courses’ and ‘interstate and international visits’. Bearing in mind the already considerable workload of teachers and the somewhat impractical bent of most of these courses (Fullan, 1991), it is not surprising university courses are not widely accessed. This is a relevant point that universities should perhaps consider. However, by encouraging and supporting teachers to engage in such development we are further encouraging a higher level of professionalism in the field of education. It is interesting to note, there was a higher percentage of teachers from ‘Innovative’ schools that had accessed these courses than teachers from ‘Non-innovative’ schools. It may be ‘Innovative’ schools encourage this practice or provide more flexible arrangements to allow such activities. Maybe these schools attract teachers more inclined to undertake such courses. The reason for this discrepancy is unclear from the current findings.
Similarly, while the considerable cost involved in ‘interstate and international visits’ is a significant deterrent for both teachers and schools, it is interesting to note that all except one of the respondents who had accessed this means of support were from ‘Innovative’ schools. Again, the reasons for this discrepancy are unclear.

There does not appear to be any substantial differences in the type of support accessed by respondents of different ages or with different levels of experience. This finding is inconsistent with research cited by Fullan (1991). Instead it seems the school context is a much better indicator of the type of support teachers will access.

5.2.2 Research Question Two: What type of support do Western Australian primary school teachers perceive as the most useful in dealing with curriculum change?

The types of support considered most useful by respondents were those that involved interacting with other teachers. Specifically, ‘interstate and international visits’ were perceived to be the most useful. It would be worthwhile to investigate the real benefits of such visits. Other activities such as ‘informally speaking with other teachers’, ‘observational visits to other schools’, ‘network meetings’, and ‘team or block meetings’, also provide invaluable opportunities for teachers to discuss teaching issues, share successes and discover additional strategies, as suggested by Herzog (1995) and Tafel and Fischer (1996). This finding is consistent with many studies in the area of collaboration as a means of professional development (Hargreaves & Fullan, 1998; Wideen & Pye, 1994). Specifically, as the process of implementing any innovation requires teachers to learn something new, it has been suggested interaction of this type provides a foundation for new learning (Fullan, 1991).
When the results of the ‘level of usefulness’ for different types of support were broken down into teacher characteristics and school context, very few substantial differences were apparent. A few isolated exceptions exist, such as younger respondents rating ‘external consultant demonstrations’ higher than other respondents. However, overall it would seem the types of support considered most useful is consistent across the categories identified in this study. This again is contrary to Fullan’s (1991) assertion that teachers of different age and experience require different types of professional development activities.

Unfortunately few respondents in this sample had undertaken the action research process, therefore limiting the data collected in regards to its relative usefulness, difficulty and effectiveness when compared to other types of support. An interesting finding however, was that more than twice the proportion of respondents from ‘Innovative’ schools had undergone the process when compared to respondents from ‘Non-innovative’ schools. Perhaps more opportunities exist to undertake this process in more ‘Innovative’ schools. Similarly, almost twice the proportion of the more experienced teachers (‘Over 20 years teaching’) had used action research than the less experienced teachers (‘Under 20 years teaching’). Intuitively this makes sense. Less experienced teachers tend to be more preoccupied with learning the basics of teaching and dealing with the day-to-day challenges. Perhaps this is why the younger teachers of this study were more favourable towards ‘external consultant demonstrations’. This type of support often provides practical strategies that may be applied directly in the classroom. The older, more experienced teachers on the other hand, may require more individualised professional development opportunities, such as the action research process, as suggested by some writers (e.g. Marker & Mehlinger, 1992).
5.2.3 Research Question Three: What are Western Australian primary school teachers’ general attitudes towards curriculum changes?

Overall most respondents indicated a positive attitude towards curriculum change, even more so than may have been expected from previous research (e.g. Edwards, 2001; Geijsel et al. 2001). This may be in part due to the nature of the district selected, a relatively small and newer district when compared to others in the state. Consistent with the literature is the finding that teachers tend to adapt changes to the needs of their students and their teaching orientations as opposed to adopting them as presented (Rathjen, 2001). As suggested by Fullan (1991) there is a tendency for teachers to adjust to the ‘near occasion’. In addition, it would seem ‘change fatigue’ (Edwards, 2000) is a significant factor in the extent to which these teachers take on initiatives, given the generally positive attitudes towards curriculum change matched with an overwhelming response regarding ‘workload’ as an impediment to change. Consistent with previous studies, most teachers appeared willing to implement changes into their classroom providing they were supported with the appropriate resources, namely time (Fullan, 1991).

5.3 Revised Conceptual Model

The conceptual model presented earlier proposed a number of different factors influencing a teacher’s ultimate perceptions, attitudes and behaviours towards curriculum change. These include the sectors responsible for introducing curriculum change; existing teacher perceptions, attitudes and behaviours (influenced by a teacher’s self-efficacy, teacher characteristics, and school context); and a range of impediments to change. The ‘teacher characteristics’ under investigation included age and years teaching.
Sources introducing major curriculum change
- School Based Decision Making
- District Office
- EDWA
- Parents and School Council

Existing Teacher Perceptions, Attitudes and Behaviours

Teacher Self Efficacy
Confidence and attitude are influenced by past success or failure.

Teacher Characteristics
Teacher age and the number of years teaching influence teacher perceptions, attitudes and behaviours.

School Context
The level of school innovativeness influences teacher perceptions, attitudes and behaviours.

IMPEDEMENTS TO CHANGE
- Workload
- Insufficient funds and lack of resources
- Limited time and lack of PD opportunities in specific areas
- Lack of personal understanding and/or motivation

Types of Support
- Collaborating with colleagues
- Professional reflection
- Observational visits
- Information networks
- Workshops
- External consultants
- Supportive networks
- District office staff support
- EDWA and commercial materials
- University courses
- Professional associations
- Union support

IMPEDEMENTS TO CHANGE
- School organisation
- Workload
- Insufficient funds and lack of resources
- Limited time
- Class size and/or composition
- Lack of personal understanding and/or motivation

Resulting Teacher Perceptions, Attitudes and Behaviours
- Attitude toward change (resistant, cautious, open or enthusiastic)
- Extent to which teachers take on change (not at all, superficially, adapt ideas, or adopt changes as presented)

Figure 15: Revised model of factors impacting on curriculum change
Other characteristics, which may influence teacher responses, were excluded, such as sex (too few male respondents), teaching level (too few respondents in each category), professional background (too cumbersome for the scope of this investigation), full-time versus part-time (difficult concept to operationalise, e.g. 0.9 very close to full-time), and school level (unreliable responses in questionnaire trials).

Sectors introducing change

School-based changes were by far the most influential in terms of introducing curriculum change. This is consistent with the recent shift toward whole school decision-making and local curriculum management (Williams et al. 1994). This was particularly evident in the ‘Innovative’ schools, as anticipated by Geijsel and associates (2001). What was unexpected was the relatively low proportion of respondents (one third) who perceive themselves as influential in introducing change. This is interesting in terms of leadership roles for teachers. While whole school decision-making is apparent from the current study, respondents were reluctant to perceive themselves as independent change agents. This is consistent with Goodlad’s (1984, cited in Fullan, 1991) assertion that individual teachers have little involvement in school-wide matters. Perhaps the concept of ‘teachers-as-leaders’ (Cranston, 2000) has been overshadowed by more collaborative approaches in this district. On the other hand, this collaborative approach appears limited to the staff and does not involve other school community members. Given the strong rhetoric towards parental participation in educational issues (e.g. Fullan, 1991; Cavanagh & Dellar, 2001), it is surprising it is not reflected in the schools, with none of the respondents indicating ‘parents or school council’ are responsible for introducing major curriculum changes. This lack of community involvement does appear to be the norm (Fullan, 1999).
Self-efficacy

Fullan (1991) suggested that ‘a sense of efficacy’ is a particularly strong trait in terms of the extent to which teachers take on change, “[s]uccess can beget more success” (p74). This was confirmed in the current study with a strong correlation between ‘previous success’, ‘confidence with new initiatives’ and subsequent attitudes and behaviours (‘extent of taking on change’). This finding is consistent with a structural approach to teacher professional development that focuses on the cognitive changes of teachers (Kremer-Hayon & Zuzovsky, 1995).

Interestingly, respondents from ‘Innovative’ schools were more than twice as likely to indicate they are ‘very confident’ than respondents from ‘Non-innovative’ schools. And three times as many respondents from ‘Non-innovative’ schools indicated that they were ‘not at all’ confident in attempting a new initiative. Again, it seems the more ‘Innovative’ schools are already providing some avenue of support that is appealing to the confidence of these respondents. Surprisingly however, there appeared to be no substantial difference in the level of success between ‘Innovative’ and ‘Non-innovative’ schools. While this may be explained in terms of the different perceptions of ‘success’ between respondents, it also leaves open the possibility that no real difference in the overall level of success between these schools actually exists.

The self-efficacy of teachers does remain an area with potential to make a real impact on the implementation of reforms as suggested by Cavanagh and Dellar (2001). As previously suggested, by ensuring teachers are more successful in their attempts to implement innovations by providing more ‘useful’ means of support, confidence may be enhanced and more positive attitudes towards curriculum change can be developed.
**Younger versus older teachers**

With one notable exception, the age of respondents did not make a substantial difference on any of the dimensions addressed. Contrary to expectations, the study found a greater proportion of older teachers were accessing websites than younger teachers. As suggested by Datnow (2000), sex may be a better predictor of how a teacher will cope with change. Unfortunately, sex was eliminated from analysis due to a disproportionate number of female respondents (89%). It should be acknowledged however, there is an imminent change in the demographics of the teaching profession in Australia. Older teachers are retiring and younger teachers will soon become a much larger proportion of the teaching force (Hargreaves & Fullan, 2000). How this affects the way schools relate to change is an area for future investigation.

**Less experienced teachers versus more experienced teachers**

It has been suggested that more experienced teachers are more resistant to change (Datnow, 2000). While this proved not to be the case in terms of the extent to which respondents have taken on new initiatives, these teachers did appear to be far more ‘cautious’ than their less experienced counterparts. At the same time, there were a greater proportion of experienced teachers that indicated they were ‘enthusiastic’ towards change. While at first it may appear this finding supports Fullan’s (1982) assertion that the ‘years of teaching’ category offers inconsistent results, it may be that more experienced teachers are simply more polarised in their attitudes towards curriculum change, yielding more extreme responses. This interpretation is in line with the lifecycle approach to teacher professional development, which suggests there are significant periods throughout a teacher’s career that influence the way they cope with change and the type of support they require (Kremer-Hayon & Zuzovsky, 1995).
**Innovative versus non-innovative schools**

While this study is limited to a single school district it has been possible to explore Fullan's (1991) proposition that school conditions impact on the extent to which teachers take on change, by making comparisons between schools on the basis of perceived levels of 'innovativeness'. The model proposed by Geijsel and associates (2001), to help explain the factors influencing the implementation of innovation programs, is to some extent supported by the present findings when considered in terms of *school context*. The notion of transformational leadership, operationalised by 'vision', 'individualised consideration', and 'intellectual stimulation', in the context of the current study is best compared with respondents perceptions of 'principal and administration support', 'ongoing staff development', and 'leadership at all levels'. Respondents from 'innovative' schools indicated a substantially higher level in each of these areas. This taken together can be cautiously considered a generally higher level of transformational leadership in 'Innovative' schools. The contributing factors proposed by Geijsel and associates (2001), 'feelings of uncertainty', 'participation in decision-making', and 'professional development activities', can best be approximated in the current study as 'confidence level', 'influence of self in introducing change', and the range of professional development activities accessed, respectively. In relation to 'confidence' in implementing initiatives, more than double the respondents from 'innovative' schools were 'very confident' when compared with those from 'non-innovative' schools. While respondents from both school contexts indicated low levels of introducing change on an individual basis, respondents from 'innovative' schools did indicate a greater range in the type of support they had accessed. This is consistent with Rosenholtz's (cited in Fullan, 1991) assertion that teachers in 'collaborative' schools seek out ideas from a variety of sources.
According to the model presented by Geijsel and associates (2001), each of these contributing factors, influenced by the level of transformational leadership, should impact on the extent of implementation of large-scale innovation programs. Based on the measures discussed above, the current study provides some support for this proposition when considered in terms of the school context. All of the ‘Innovative’ school respondents indicated they take on initiatives to some extent (‘adapt’ or ‘adopt’), as opposed to nearly ten percent of ‘Non-innovative’ school respondents who indicated they take on initiatives ‘only superficially’. Therefore, in light of the current findings and in accordance with the model proposed by Geijsel and associates (2001), transformational leadership must be made a higher priority for schools wishing to become more ‘innovative’. Essentially, transformational leadership must ensure teachers are engaged in a climate of intellectual, practical and emotional challenges if professional growth is to be achieved (Romberg, 1992).

**Impediments to change**

Not surprisingly ‘workload’ was the biggest factor impeding curriculum change. If ‘workload’ can be equated with ‘a lack of time’, this finding is consistent with most major studies in this area (e.g. House, 1974; Holt, 1979; Gunter, 2001). While creating more hours in a day is obviously not an option, school leaders can be more mindful of the demands they place on their teaching staff in terms of additional roles and responsibilities, as suggested by Mansell (2000) and Wildman and associates (1990). Interestingly, ‘school organisation’, a factor that is open to manipulation and negotiation, is another influential factor impeding change. Perhaps this is an area in which school leaders can take steps to improve conditions and remove real and perceived barriers, as was demonstrated in a study by Lewis (1998).
Likewise, while it may be difficult to overcome a lack of school resources in these economic rationalist times, it is possible to re-examine school priorities and make significant changes in the way resources are distributed. Of particular interest was the small group of respondents who considered their own lack of personal motivation to be a factor impeding change.

*Fidelity approach versus contemporary views on curriculum reform*

A fidelity approach to reform requires teachers to implement plans as intended by curriculum writers (Snyder et al. 1992). The responsibility for curriculum development is therefore removed from teachers, who are provided with ‘teacher-proof’ materials designed to stimulate curriculum change (Remillard, 1999). It would appear the fidelity approach has very little support from the current study. While proponents of this approach argue that reform failure is the fault of unmotivated teachers or those with a limited understanding of the initiatives (Snyder et al. 1992), these were the least influential of the factors identified in terms of impeding change. Instead, in line with more contemporary, context-dependent approaches, the current study identified ‘workload’ and inflexible school structures (‘school organisation’) as the prime factors impeding change, as suggested by Richards (1995). Similarly, school-based decision-making has been identified as extremely influential in the introduction of curriculum change, as advocated by the more contemporary approaches. It appears, from the current findings, that the influence of central authorities or ‘professional’ curriculum writers is often reduced through the modification and manipulation of curriculum mandates, as found by Edwards (1999, 2000).
5.4 Conclusion

The preceding chapter has offered an analysis and discussion of the questionnaire results in terms of the research questions. Based on these findings a revised version of the conceptual framework presented initially has been proposed. This amended model describes specific sources responsible for introducing major curriculum change, the relative influence of a number of teacher characteristics on teacher perceptions and responses to curriculum change, powerful factors impeding change, and the type of support currently accessed and valued by teachers. The final chapter suggests possible implications of this study, including significant findings, the value of the research, methodological reflection, and areas for future research.
CHAPTER SIX: IMPLICATIONS OF THE STUDY

6.1 Introduction

The research presented in this paper attempted to identify conditions that affect the manner in which Western Australian primary school teachers perceive and cope with curriculum change, in the hope of developing strategies to better support these teachers in the future. Based on preliminary findings in the first phase of this study and the research literature it was expected that teacher self-efficacy, teacher characteristics such as age and years of teaching, and school context such as the level of ‘innovativeness’ would prove to be influential in the process of implementing new initiatives. A model expressing the relationships between these concepts was developed and evaluated in the second phase of this study.

6.2 Significant Findings

The purpose of this study has been to identify the ways teachers cope with change in the hope that strategies can be developed to better support teachers in their future endeavours with curriculum change. Based on the current findings a number of recommendations can be made to those responsible for supporting teachers through reforms, such as principals and administration teams, and support teams at district and state levels. Firstly, the most useful type of professional development for teachers involves teachers interacting with each other. As such, opportunities need to be made for greater collaboration. Teachers need time to discuss issues and share their successes. Opportunities to visit colleagues in other classrooms and other schools need to be provided. More team and whole school collaboration time needs to be created by limiting time-consuming ‘housekeeping’ issues at staff meetings which could easily be addressed through memos and the like.
Secondly, action research as a means of coping with curriculum change is currently under utilised. The individualised nature of this process allows teachers to identify specific issues and work towards improving their own practices. The relative usefulness of this approach requires further attention in future research.

Policymakers and support personnel need to acknowledge that most teachers are positive towards curriculum change, however an overwhelming workload proves a formidable barrier to any initiative. By limiting the number of additional roles and responsibilities delegated to staff, administration teams will be encouraging their teachers to focus on their core business, classroom teaching and learning. Perhaps when teachers are permitted to focus their attention in this way they will be in a better position to take on initiatives.

It is widely recognised that most teachers will modify initiatives to meet the needs of their students and to fit with their existing orientations. This is not necessarily a bad thing. Administration teams need to trust the professional judgement of their teaching staff. Moreover, by facilitating access to worldwide ‘best practices’ (Jennings, 2001) and relevant educational literature they can help develop the professionalism of teachers. Likewise, much can be done to improve school organisation to support teachers with curriculum challenges. Specifically, school structures need to become more flexible to encourage teachers to engage in innovative practices. Issues such as timetabling and single teacher classrooms need to be addressed if teachers are to tackle contemporary initiatives. This cannot occur without the full support of a school’s administration.
The notion of self-efficacy, when applied to teaching, suggests there is a need for teachers to experience success if they are to develop the confidence necessary to take on new initiatives. It is important that the school environment be supportive and that feelings of uncertainty are reduced. If teachers feel the risk of failure is greater than the chance of success they will not take on future changes.

Finally, if schools are truly committed to the notion of a ‘school community’, then much more action must be taken to involve parents in the decision-making process. At present there is little evidence of this occurring in terms of parents or school councils influencing curriculum reforms.

6.3 Value of the Research

While there have been studies of teachers’ responses to change, little is documented as to how teachers feel they are supported in these changes and how they would like to be supported in the future. It is assumed this information would be valuable to central authorities, at the district level and particularly at the school level. In addition, much of the research has been overseas or in the eastern states of Australia, while very little research has been conducted in Western Australia in the field of educational reform. More change is inevitable in the future, but how it is received and implemented is subject to many factors, not the least of which is the attitude and skills of teachers. With appropriate support, perhaps teachers will be more enthusiastic and better equipped to deal with these changes. This study contributes to the growing knowledge pertaining to these issues while focusing on a specific group of teachers. By acknowledging the viewpoint of these teachers a more responsive approach in supporting curriculum change has been encouraged.
6.4 Methodological Reflection

A number of comments are necessary to place the present findings in perspective. Firstly, the results of this investigation are based on the subjective perceptions of the participants. Fullan (1991) has argued that it is necessary to understand the subjective world of teachers before engaging in any change effort. However, given that no objective measure of success or behaviour has been included, there is a risk of obtaining a distorted picture of reality (Geijssel et al. 2001). Respondents may unintentionally provide false information through misinterpretation of the questions, while others may choose to embellish their responses. This is the risk involved when dealing with self-perceptions with little corroborating information.

The use of semi-structured interviews proved useful in gaining insights into the current circumstances of teachers within the chosen district. In particular, speaking to teachers within ‘innovative’ schools provided a unique perspective. However, the limited access to teachers (one interview session) did not allow for confirmation or clarification as new themes emerged with successive interviews. In addition, as the interview data was coded and categorised by the researcher only, alternative interpretations may have been overlooked (Holt, 1979).

The quality of the questionnaire instrument itself, employed in the second phase of the study, could have been enhanced through statistical analysis of the reliability and validity of individual items. While the instrument used in this study was subject to extensive trialing, it may instil greater confidence in the overall value of the data if more stringent tests are employed in future research.
Given the reductionist processes involved in the development of a self-response survey it is also reasonable to assume that some aspects of the phenomenon may be excluded from the final version of the questionnaire (Cavanagh & Dellar, 2001). In addition, while the schools that took part in this phase of the study were randomly selected, only teachers who volunteered to participate (by completing and returning their questionnaires) were represented in the results. Therefore there is a possible bias in the type of respondent who have been represented (e.g. less resistant to change).

Finally, the generalisability of the findings to teachers within the defined population (‘Woodlands’ education district) and to teachers from the target population (Western Australian primary schools) has been somewhat reduced by a low response rate and missing data. For example, it is difficult to declare a representative sample when an important perspective (males) has not been captured. In addition, cross sectional studies such as this one, can provide only a ‘snapshot’ of current circumstances, “they do not and cannot capture movement” (Fullan, 1999, p33).
6.5 Future Research Directions

In light of the present findings suggestions for future research have been included. The area of *action research* is potentially very exciting for those interested in school improvement. By encouraging teachers to identify issues within the classroom and subsequently work towards developing appropriate solutions, a context-dependent and more relevant approach is emerging. Given the time and effort involved in such a process researchers should look towards the relative payoff for teachers in terms of successful practice. Perhaps if the findings are positive it may encourage districts and schools to invest the resources required to undertake this approach in the future.

The influence of *teacher characteristics* on the way teachers respond to curriculum change remains an area of interest to educational researchers. In particular, attitudes and behaviours of male teachers in regards to curriculum change is a matter that requires far more attention. Similarly, as ‘school district’ is purported to be influential (Fullan, 1991) in the extent to which teachers cope with changes, perhaps future studies may consider running concurrently in different districts to allow comparisons.

Finally, an area to come out of the current study that requires further attention is that of ‘innovative schools’. In an attempt to gain information about a large number of teachers we have inevitably lost ‘details’. By taking a closer look at specific schools demonstrating innovative practices through case studies over an extended period of time, we will not only develop a better understanding of the characteristics that go towards making a school ‘innovative’, but we will help define the processes and support structures required to sustain these practices (Fullan, 1999). Longitudinal studies of this nature may prove a valuable avenue for future research.
6.6 Conclusions

A number of cautious conclusions have been drawn:

1. The most useful type of professional development for teachers involves teachers interacting with each other. Teachers need time to discuss issues and share their successes.

2. Action research as a means of professional development is currently under utilised.

3. Most teachers are positive towards curriculum change, however an overwhelming workload proves a formidable barrier to any initiative.

4. Most teachers will modify initiatives to meet the needs of their students and to fit with their existing orientations.

5. School structures need to become more flexible to encourage teachers to engage in innovative practices.

6. The self-efficacy of a teacher influences the way they perceive and cope with curriculum change.

7. Teacher characteristics, such as age and the number of years teaching, did not yield substantially different results when teachers were categories along these dimensions.

8. School context, as defined by the level of ‘innovativeness’, did produce differential results in terms of teacher attitudes and responses to curriculum change, and the type of professional development accessed.

9. Finally, schools should take more action to involve parents and the wider school community in the school level decision-making processes if they truly are to become ‘learning communities’.
If schools are to be successful in their goal to provide quality education for their students they must be prepared to take on the challenge of curriculum change at the classroom level. This will only be achieved with the cooperation of teachers. By acknowledging the professionalism of teachers and providing the type of support they demand we can go a long way towards real school improvement.
LIST OF REFERENCES


Tripp, D. (1994). *Doing a Humpty on Curriculum (or making it mean what I want it to mean)*. Curricula Studies Unit, Murdoch University, Perth.


LIST OF APPENDICES

Appendix A  Interview Schedule for CIM
Appendix B  Introduction script for receptionist/principals
Appendix C  Written information letter
Appendix D  Letter of introduction
Appendix E  Interview schedule for teachers
Appendix F  Informed consent sheet
Appendix G  Profile sheet
Appendix H  Preliminary Questionnaire
Appendix I  Trial questionnaire
Appendix J  Pilot questions for trial questionnaire
Appendix K  Revised trial (final) questionnaire
Appendix L  Reminder letter
Interview Schedule for CIM

Introduction
I am a qualified primary school teacher, currently doing my Masters in Education full time at Murdoch University. My research project is focused on how teachers cope with mandated changes to the curriculum, such as the Curriculum Framework and the Student Outcome Statements. I am interested in the strategies they use to cope with curriculum reforms, and in particular the types of strategies used by teachers in “innovative” schools.

I am hoping to talk to you about the type of support that the ‘Woodlands’ Education District currently provides for teachers in this area. If possible I would like to use a tape recorder to be as accurate in my research as possible. I would be happy to provide a copy of the interview transcript for you to add or delete any information you would like before you give your approval. I have a consent form here if that is okay.

Questions
1. Could you please describe your role as Curriculum Improvement Manager?
2. In what (other) ways does the district office support schools within the district with mandated changes such as the CF and the SOS?
3. Generally, how have the schools within this district managed the implementation of the CF and the SOS?
4. As you know, I am particularly interested in how teachers in “innovative” schools manage change. What criteria does ‘Woodlands’ District Office use to identify or describe an “innovative” school?
5. Could you, maybe in consultation with the District Director or other staff here, nominate four or five primary schools within the district that you would consider “innovative” based on those criteria, and get back to me as soon as possible (email)?
6. Would you be interested in discussing my findings later?

Thank you for your time it is very much appreciated. If you could get a list of those “innovative” schools to me as soon as possible, and I will be sure to get a copy of the transcript to you. Thank you so much.
Appendix B

Introduction script for receptionist/principals

Phone Call- Front Office
Hello, my name is Michelle Cresdee, I am a full time masters student at Murdoch University. I would like to make an appointment to talk to (Principal’s name) about my research and the possibility of interviewing teachers at (school’s name).

Phone Call- Principal
Hello, my name is Michelle Cresdee, I am a full time masters student at Murdoch University. I would like to organise a time to talk to you about my research, which will involve interviewing teachers about strategies they use to cope with mandated changes to the curriculum.
Appendix C

Written information letter

Project Title: Investigation of teachers’ strategies in dealing with mandated changes in the curriculum.

Dear Teacher,

My name is Michelle Cresdee and I am currently a Masters student at Murdoch University. My research involves investigating the different strategies primary school teachers in Western Australia use in dealing with mandated changes in the curriculum. The purpose of this study is to find out what strategies are currently being used and what support teachers feel would be useful in dealing with future changes. I hope that the conclusions made in this study will benefit teachers as more changes to the curriculum are mandated.

You can help in this study by consenting to participate in an interview to discuss your ideas. It is anticipated that the time to complete the interview will be no more than one hour and will take place at your school or in a place suitable to you. Contained in the interview are questions about how you cope with curriculum changes and what support you would like in the future. Participants can decide to withdraw their consent at any time. Interviews will be taped for accuracy and all tapes and transcripts will be securely stored for a period of five years and then destroyed. All participants will be provided with a transcript or summary of their interview for modification and approval before analysis. All information given during the interview is confidential and no names or other information that might identify you will be used in any publication arising from the research. Feedback on the study will be provided to participants on request.

If you are willing to participate in this study, could you please complete the details below. If you have any questions about this project please feel free to contact either myself, Michelle Cresdee, on 9307 1962 or my supervisor, Dr Lucy Jarzabkowski, on 9360 2378.

My supervisor and I are happy to discuss with you any concerns you may have on how this study has been conducted, or alternatively you can contact Murdoch University’s Human Research Ethics Committee on 9360 6677.

Thank you for your participation, your contribution to this project is highly valued.

Michelle Cresdee
Dr Lucy Jarzabkowski  
Phone: (08) 9360 2378  
Fax: (08) 9360 6296  
Email: l.jarzabkowski@murdoch.edu.au

3rd July 2002

TO WHOM IT MAY CONCERN

This is a letter of introduction for Ms Michelle Cresdee. Michelle is a full time Master of Education student at Murdoch University. She is a qualified and experience teacher, currently on leave from the Western Australian Department of Education to pursue her studies.

Michelle is undertaking a research project entitled “An investigation of teachers’ strategies in dealing with mandated changes in the curriculum”. I hope you will be able to support her research and assist her with her inquiries. Please do not hesitate to contact me if you require any further information about Michelle or her project.

Yours sincerely

[Signature]

Lucy Jarzabkowski, PhD  
Lecturer in Educational Leadership
Appendix E

Interview schedule for teachers

1. Could you describe a **change process** that has taken place in your school for a major initiative, such as the Curriculum Framework?

2. What **successes** have you encountered during the implementation of these changes?

3. What **difficulties** have you encountered during the implementation of these changes?

4. What **professional development** have you sought or been offered to support the implementation of these changes?

5. What **support** have you found **most useful**?

6. What **support** have you found **least useful**?

7. What type of **support** would you like for **future reforms**?

8. Do you have any **other comments** about curriculum changes you have encountered or support you have received?
Appendix F

Informed consent sheet

Project Title: Investigation of teachers’ strategies in dealing with mandated changes in the curriculum.

I, ________________________________ have been informed about all aspects of the above research project and any questions I have asked have been answered to my satisfaction. I agree to take part in this activity, however, I know that I may change my mind and stop at any time.

I understand that all information provided is treated as confidential and will not be released by the investigator unless required to do so by law.

I agree for this interview to be tape recorded.

I agree that research data gathered for this study may be published provided my name or other information which might identify me is not used.

Participant’s Signature: ________________________________

Date: ________________________________

Investigator’s Signature: ________________________________

Date: ________________________________

Investigator's Name: Michelle Cresdee

Please indicate by ticking the box if you would like a copy of the research results.

[ ] Copy of results

Participant’s Name: (Please Print) ________________________________

Mailing Address: ____________________________________________

Email Address: ____________________________________________

Contact Phone Number: (W) __________________________ (H) __________________________
Thank you for taking the time to talk to me about curriculum changes and the strategies you use to cope with this changes.

Before we begin, have you had an opportunity to look over the information letter and consent form I provided? Do you have any questions or concerns? Have you signed the consent form? Is it okay if I use a tape recorder?

I would like to start with some biographical information to help me get a better picture of the type of strategies that may be more appropriate for different teachers.

<table>
<thead>
<tr>
<th>Profile Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex:</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Age:</td>
</tr>
<tr>
<td>20-25 years</td>
</tr>
<tr>
<td>36-49 years</td>
</tr>
<tr>
<td>Years Teaching:</td>
</tr>
<tr>
<td>0-5 years</td>
</tr>
<tr>
<td>13-19 years</td>
</tr>
<tr>
<td>Ed. Background:</td>
</tr>
<tr>
<td>Grad. Dip. Ed</td>
</tr>
<tr>
<td>MEd.</td>
</tr>
<tr>
<td>Other (please specify)</td>
</tr>
<tr>
<td>Teaching Level:</td>
</tr>
<tr>
<td>Junior</td>
</tr>
<tr>
<td>Senior</td>
</tr>
<tr>
<td>Other (please specify)</td>
</tr>
<tr>
<td>Size of your current school:</td>
</tr>
</tbody>
</table>
Preliminary Questionnaire

Teachers' strategies in dealing with mandated curriculum changes

This questionnaire is concerned with how WA teachers see the strategies currently available to cope with mandated changes and what support they would like for future curriculum changes. It is hoped this information will help with the implementation of future initiatives in the education system by listening to those who are responsible for implementing the changes. In this way, the system will be more informed and better able to provide appropriate support when dealing with future reforms.

The questionnaire should take no longer than ten minutes. Please place the completed questionnaire in the stamped self-addressed envelope and return as soon as possible. Thank you.

The following questions require either a ranking of items, a pen tick or short answer.

1. What kind of curriculum change do you find most difficult in terms of both understanding and implementation? (Please rank 1 to 3, 1- most difficult, 3- least difficult)
   - Skills e.g. portfolios
   - Knowledge e.g. computers
   - Principles e.g. student-centred learning

2. How often do you access Professional Development from these sources?
   - School level workshops/sessions
     - Never
     - Sometimes
     - Often
   - District workshops/sessions
     - Never
     - Sometimes
     - Often
   - Private workshops/consultancy
     - Never
     - Sometimes
     - Often

3. Which factor most impacts on your utilisation of support? (Please rank 1 to 3, 1- most impact, 3- least impact)
   - Time
   - Cost
   - Availability

The following questions relate to support from any sources not only those listed above, for example, networking with peers from other schools, comprehensive curriculum support documents.

4. What type of support do you find most useful? ______________
   Why? ________________________________

5. What types of support would you like to receive to help deal with future curriculum changes? (Please list) ________________________________

Please turn over
**Indicate to what extent do you agree or disagree with the following statements.**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am confident in applying the Curriculum Framework</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am confident in using the Student Outcome Statements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I receive all the support I require for curriculum changes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I look forward to more initiatives in the curriculum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My school should do more to support me in curriculum changes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Ed. Dept. should do more to support teachers with changes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Profile Information**

- **Sex:**
  - Male □
  - Female □

- **Age:**
  - 20-25 years □
  - 26-35 years □
  - 36-49 years □
  - 50+ years □

- **Years Teaching:**
  - 0-5 years □
  - 6-12 years □
  - 13-19 years □
  - 20+ years □

- **Ed. Background:**
  - Grad. Dip. Ed □
  - BEd. □
  - MEd. □
  - PhD Ed. □
  - Other (please specify) □

- **Teaching Level:**
  - Junior □
  - Middle □
  - Senior □
  - Specialist □

- **Size of your current school:**
  - Level 3 or smaller □
  - Level 4 or 5 □
  - Level 6 + □

---

*Have you completed all questions in each section? Please check carefully.*

*Place the completed questionnaire in the stamped self-addressed envelope provided and return as soon as possible. Thank you for your participation, your contribution is highly valued.*
Teachers’ strategies in dealing with mandated curriculum changes

This questionnaire is concerned with how WA primary school teachers perceive recent curriculum changes and the strategies they currently employ to cope with such changes. It is hoped this information will help with the implementation of future reforms in the education system by listening to the needs of those responsible for implementing the changes. In this way, the system will be more informed and better able to provide appropriate support for teachers.

No identifying information will be required, all responses therefore will remain anonymous. Your responses will be collated with those of the other respondents and only group results reported. The questionnaire should take no longer than fifteen minutes to complete. Please place the completed questionnaire in the stamped self-addressed envelope and return as soon as possible.

Thank you for your time and contribution.
Michelle Cresdee
Masters of Education student at Murdoch University

Instructions: Throughout this questionnaire the term ‘curriculum’ will be used broadly to refer to the content presented, skills developed and the teaching and learning strategies implemented by teachers in their classrooms. Each question will require only simple pen ticks.

1. Please indicate which of the following curriculum changes you have undergone in the past five years.

Please tick all applicable choices

☐ Employing cooperative learning strategies
☐ Employing gender and/or multi-age groupings
☐ Employing integrated learning strategies
☐ Employing student centred learning and assessment strategies
☐ Undertaking collaborative teaching, e.g. team planning
☐ Implementing the Curriculum Framework and Student Outcome Statements
☐ Integrating Information Technology into learning experiences for students
2. Which of the following sectors have been responsible for **introducing major curriculum changes** in your own school?

*Please tick all applicable responses*

- [ ] Yourself- influenced the teaching of others in the school
- [ ] Team or block collaboration
- [ ] Whole school planning/action
- [ ] Principal and/or Administration Team
- [ ] Parents and/or School Council
- [ ] District Education Office
- [ ] Education Department of WA

3. Where do you usually **hear about** changes to the curriculum?

*Please tick all applicable responses*

- [ ] Colleagues in current school or other schools
- [ ] Staff meetings and/or School Development Days facilitated by the Administration team
- [ ] *School Matters* publication
- [ ] Memos from the Education Department of WA
- [ ] *The Western Teacher* or other Union correspondence/publications
- [ ] The Media
- [ ] Research Literature and/or Educational Journals

4. Approximately how many times have you attended the following professional development options **over the past year**? *Please indicate for each option.*

<table>
<thead>
<tr>
<th>Professional Development</th>
<th>Not at all</th>
<th>Once or twice</th>
<th>Three to six times</th>
<th>More than six times</th>
</tr>
</thead>
<tbody>
<tr>
<td>After hours <em>optional</em> professional development provided by staff/administration team</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>After hours professional development provided by the District Education Office team</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One-off conference/seminar/workshops</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Series of workshops in the same area, e.g. 3 day workshop</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. For each of the following means of support please indicate how useful you have found them in dealing with curriculum changes over the past five years. To indicate that you have not accessed a particular means of support please tick ‘Not Used’.

<table>
<thead>
<tr>
<th>Means of Support</th>
<th>Not Used</th>
<th>Not at all Useful</th>
<th>Limited Usefulness</th>
<th>Undecided</th>
<th>Useful</th>
<th>Very Useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informally speaking to teachers within own school or from other schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Released from class to reflect on changes and think about applications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information provided regarding the theory behind curriculum changes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practical strategies which can be applied directly in the classroom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observational visits to other schools within the state</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observational visits to schools in the eastern states or overseas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Websites with lesson plan ideas and teacher reflections and discussions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network meeting with other teachers in the same specialty or particular learning area, e.g. L.O.T.E.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal reflections or professional journal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular team/block meetings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intensive three day workshops with external consultant/expert</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One off workshop/seminar with external consultant/expert</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstration by external consultant/expert with your own class</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support from family and friends working within the education system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Psychologist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District Office professional development sessions (after school)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University courses (in service)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum materials developed and distributed by the Education Department</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercially produced resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional associations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The State Teachers Union</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. Have you been involved in **Action Research** in the context of curriculum change?

No ☐ Yes ☐

*If yes*, please indicate how strongly you agree or disagree with each of the following statements.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I found the Action Research process useful</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Action Research process was difficult to apply</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action Research is more effective than other professional development</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would like to undertake more Action Research</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**The following questions relate to the characteristics of your current school context.**

7. In terms of taking on curriculum changes how innovative do you consider your current school?

*Please choose only one option.*

☐ Very innovative

☐ Somewhat innovative

☐ Not very innovative

☐ Not at all innovative

8. Please indicate to what extent each of the following characteristics reflects your current school.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Somewhat</th>
<th>A great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive climate within school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emphasis on curriculum and learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High expectations for students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective system for monitoring student achievement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ongoing staff development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental involvement and support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harmonious relations between staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership at all levels within school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supportive Principal and Administration team</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following questions relate to how you personally perceive and cope with curriculum changes.

9. Which would best characterise your **attitude** towards curriculum changes?

*Please choose only one option.*

- ☐ Resistant to curriculum changes
- ☐ Cautious of curriculum changes
- ☐ Open to most curriculum changes
- ☐ Enthusiastic towards curriculum changes

10. To what extent do you personally take on **mandated or imposed** curriculum changes?

*Please choose only one option.*

- ☐ Not at all
- ☐ Only superficially
- ☐ Take some ideas and adapt them
- ☐ Adopt changes as presented

11. How confident do you feel attempting a new initiative?

*Please choose only one option.*

- ☐ Depends on the area
- ☐ Very confident
- ☐ Somewhat confident
- ☐ Not at all confident

12. How successful do you feel you have been in implementing previous initiatives?

*Please choose only one option.*

- ☐ Depended on the area
- ☐ Very successful
- ☐ Somewhat successful
- ☐ Not at all successful
13. Have you had an opportunity to **share** any changes in your teaching with other teachers?

- [ ] Yes  ➞ Did you enjoy the experience of sharing your ideas? [ ] Yes  [ ] No
- [ ] No  ➞ Would you be interested in doing this sometime in the near future? [ ] Yes  [ ] No

14. Please indicate how strongly you agree or disagree with each of the following statements.

<table>
<thead>
<tr>
<th>I enjoy the challenge of changes in the curriculum</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent curriculum changes have renewed my enthusiasm for teaching</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes in the curriculum help make my job interesting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recent curriculum changes have not brought any real differences to my teaching</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers need to be very organised to deal with changes in the curriculum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most curriculum changes are in the interest of educating students better</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel as though I am in a whirlwind of curriculum change</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am looking forward to future changes in the curriculum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am proud of how I have coped with recent curriculum changes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. Which factors have **impeded you** in the implementation of curriculum changes?

*Please tick all applicable choices*

- [ ] School organisation, i.e. workspaces and timetable limitations
- [ ] Workload
- [ ] Insufficient funds for professional development costs
- [ ] Lack of school resources, e.g. number of computers available
- [ ] Limited time available after school to attend professional development
- [ ] Class size and/or class composition
- [ ] Lack of personal understanding of the changes
- [ ] Lack of personal motivation to implement changes
Please provide the following biographical information so the data can be more accurately analyzed.

<table>
<thead>
<tr>
<th>Sex:</th>
<th>□ Male</th>
<th>□ Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age:</td>
<td>□ 20-25 years</td>
<td>□ 26-35 years</td>
</tr>
<tr>
<td>Years Teaching:</td>
<td>□ 0-5 years</td>
<td>□ 6-12 years</td>
</tr>
</tbody>
</table>

*Please tick all applicable options*

**What professional educational qualifications do you currently have?**


Other *(please specify)* ________________________________

**Teaching Level:**

□ Junior  □ Middle  □ Senior  □ Specialist

□ Full time  □ Part time

**Size of your current school:**

□ Level 3  □ Level 4  □ Level 5

*Have you completed all questions in each section? Please check carefully.*

*Thank you for your participation, your contribution is highly valued.*

*Please place the completed questionnaire in the stamped self-addressed envelope provided and return to:*

*Michelle Cresdee*
*Address Provided*
*By Friday the 4th of October 2002*
Appendix J

Pilot questions for trial questionnaire

Thank you so much for helping me with this questionnaire!

This is the trial version of a questionnaire to be included in my Masters research project. It should take no more than fifteen minutes to complete. At the end please complete the following questions regarding any difficulties encountered and any suggestions you have for improvement. Please be brutally honest. It is much better to find the problems now rather than later! Your comments will be extremely valuable in making revisions for the final survey.

- How long did it take you to complete the questionnaire?  _______________

- Were the instructions clear?  
  Yes  [ ]  No  [ ]

If no, please provide details regarding which instructions need refining and any suggestions on the actual questionnaire.

- Were any of the questions unclear or ambiguous?  
  No  [ ]  Yes  [ ]

If so, please provide details regarding which questions need refining and any suggestions on the actual questionnaire.

- Did you object to answering any of the questions?  
  No  [ ]  Yes  [ ]

If so, please provide details regarding which questions need refining and any suggestions on the actual questionnaire.

- In your opinion, have any major topics been omitted?  
  No  [ ]  Yes  [ ]

If so, please provide details regarding which topics you feel require inclusion.

- Was the layout of the questionnaire clear?  
  Yes  [ ]  No  [ ]

- Any other comments?  ____________________________________________

Please place this feedback sheet and the completed questionnaire in the envelope provided. I will be back to collect them next Monday the 16th of September. Thank you so much for your time and suggestions, Michelle.
Appendix K

Revised trial (final) questionnaire

DEALING WITH CURRICULUM CHANGE

This survey is concerned with how WA primary school teachers perceive recent curriculum changes and the strategies they currently employ to cope with such changes. It is hoped this information will help with the implementation of future reforms in the education system by listening to the needs of those responsible for implementing changes. In this way, the system will be more informed and better able to provide appropriate support for teachers.

No identifying information will be required, all responses therefore will remain anonymous. Your responses will be collated with those of the other respondents and only group results reported. The questionnaire should take no longer than ten minutes to complete. Please place the completed questionnaire in the stamped self-addressed envelope and return as soon as possible.

Thank you for your time and contribution.

Michelle Cresdee
Masters of Education student at Murdoch University

Instructions: Throughout this survey the term ‘curriculum’ will be used to refer to the content presented, skills developed and the teaching and learning strategies implemented by teachers in their classrooms.

1. Which of the following sectors have been responsible for introducing major curriculum changes in your current school? Please tick all applicable responses
   - [ ] Yourself- influenced the teaching of others in the school
   - [ ] Team or block collaboration
   - [ ] Whole school planning/action
   - [ ] Principal and/or Administration Team
   - [ ] Parents and/or School Council
   - [ ] District Education Office
   - [ ] Education Department of WA

2. Have you been involved in Action Research in the context of curriculum change?
   - [ ] No
   - [ ] Yes

If yes, please indicate how strongly you agree or disagree with each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I found the Action Research process useful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Action Research process was difficult to apply</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action Research is more effective than other professional development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would like to undertake more Action Research</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. For each of the following means of support please indicate how useful you have found them in dealing with curriculum changes over the **past five years**. To indicate that you have not accessed a particular means of support please tick ‘**Not Used**’.

<table>
<thead>
<tr>
<th>Means of Support</th>
<th>Not Used</th>
<th>Not at all Useful</th>
<th>Limited Usefulness</th>
<th>Undecided/ Depends on presence</th>
<th>Very Useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informally speaking to teachers within own school or from other schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Released from class to reflect on changes and think about applications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information provided regarding the theory behind curriculum changes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practical strategies which can be applied directly in the classroom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observational visits to other schools within the state</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observational visits to schools in the eastern states or overseas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Websites with lesson plan ideas and teacher reflections and discussions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network meeting with other teachers in the same specialty or particular learning area, e.g. L.O.T.E.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal reflections or professional journal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular team/block meetings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intensive three day workshops with external consultant/expert</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One off workshop/seminar with external consultant/expert with your own class</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstration by external consultant/expert with your own class</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support from family and friends working within the education system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Psychologist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District Office professional development sessions (after school)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University courses (in service)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum materials developed and distributed by the Education Department</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercially produced resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Associations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The State Teachers Union</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Which would best characterise your **attitude** towards curriculum changes?

*Please choose only one option.*

- [ ] Resistant to curriculum changes
- [ ] Cautious of curriculum changes
- [ ] Open to most curriculum changes
- [ ] Enthusiastic towards curriculum changes

5. To what extent do you personally take on **mandated or imposed** curriculum changes?

*Please choose only one option.*

- [ ] Not at all
- [ ] Only superficially
- [ ] Take some ideas and adapt them
- [ ] Adopt changes as presented

6. How **confident** do you feel attempting a new initiative?

*Please choose only one option.*

- [ ] Depends on the area
- [ ] Very confident
- [ ] Somewhat confident
- [ ] Not at all confident

7. How **successful** do you feel you have been in implementing previous initiatives?

*Please choose only one option.*

- [ ]Depended on the area
- [ ] Very successful
- [ ] Somewhat successful
- [ ] Not at all successful

8. Which factors have **impeded you** in the implementation of curriculum changes?

*Please tick all applicable choices*

- [ ] School organisation, i.e. workspaces and timetable limitations
- [ ] Workload
- [ ] Insufficient funds for professional development costs
- [ ] Lack of professional development offered in specific areas
- [ ] Lack of school resources, e.g. number of computers available
- [ ] Limited time available after school to attend professional development
- [ ] Class size and/or class composition
- [ ] Lack of personal understanding of the changes
- [ ] Lack of personal motivation to implement changes
9. Please indicate how strongly you agree or disagree with each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My current school is innovative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is strong parental involvement and support at my current school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is an emphasis on ongoing staff development at my current school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are opportunities for leadership at all levels at my current school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The principal and administration team are supportive at my current school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I enjoy sharing changes in my teaching with other teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I enjoy the challenge of changes in the curriculum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel as though I am in a whirlwind of curriculum change</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am looking forward to future changes in the curriculum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am proud of how I have coped with recent curriculum changes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please provide the following biographical information so the data can be more accurately analysed.

Sex:  
- [ ] Male  
- [ ] Female

Age:  
- [ ] 20-25 years  
- [ ] 26-35 years  
- [ ] 36-49 years  
- [ ] 50+ years

Years Teaching:  
- [ ] 0-5 years  
- [ ] 6-12 years  
- [ ] 13-19 years  
- [ ] 20+ years

Please tick all applicable options

Teaching Level:  
- [ ] Junior  
- [ ] Middle  
- [ ] Senior  
- [ ] Specialist

Have you completed all questions in each section? Please check carefully.

Thank you for your participation, your contribution is highly valued.

Please place the completed questionnaire in the stamped self-addressed envelope provided and return to:

Michelle Cresdee  
Address provided  
AS SOON AS POSSIBLE
24th October 2002

Dear Principal

Thank you for allowing me to involve your school in my study of how teachers cope with curriculum change.

I was hoping you could remind staff to return their questionnaires, if they have not already done so, as soon as possible.

If others are interested in participating, but you do not have any questionnaires left, please do not hesitate to contact me.

Your support in this matter is very much appreciated.

Thanking you,

Michelle Cresdee
Master of Education student (Murdoch University)

Phone: (08) 9307 1962
Email: cresdee@wiredcity.com.au