THINKING AND ACTING: AN EXPLORATION OF AUSTRALIAN EARLY CHILDHOOD TEACHERS' BELIEFS AND PRACTICE REGARDING LEARNING, TEACHING AND RELIGIOUS EDUCATION.

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Statement of authorship and sources

This thesis contains no material published elsewhere or extracted in whole or in part from a thesis by which I have qualified for or been awarded another degree or diploma.

No other person's work has been used without due acknowledgement in the main text of the thesis.

This thesis has not been submitted for the award of any degree or diploma in any other tertiary institution.

All research procedures reported in the thesis received the approval of the relevant Ethics/Safety Committees (where required).

Signed: _____ Date: January 29, 2007

Catherine Jane Meehan

Acknowledgements

In year 11, my parents were told at a parent teacher interview by a well meaning and experienced teacher that I should leave school and work as a checkout operator at the local supermarket or go to a technical college and become a hairdresser … in her professional experience students like me would not succeed at university. Despite this, my parents encouraged me to follow my dreams and as a result I learned a valuable lesson about my learning that has been with me in my work and study.

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Abstract

The purpose of this research was to explore the beliefs and practice of early childhood teachers in Catholic schools in Australia. In particular, the research investigated the teachers' beliefs about teaching, learning and Religious Education. Also examined in this thesis was the classroom practice of early childhood teachers and the factors that impacted on their stated beliefs and translation into classroom practice.

Whilst there are empirical studies that explore early childhood teachers' beliefs and practice, there were no studies which explore early childhood teachers' beliefs and practice with regard to learning, teaching and Religious Education in Australia.

This study was conducted within both positivist and interpretivist paradigms, using a mixed methodological approach to data collection. Phase One was a large scale (n=540) use of a questionaire to ascertain teachers' beliefs. The Early Childhood Teachers' beliefs about learning, teaching and Religious Education questionaire was developed specifically for this study. Early childhood teachers from 6 states of Australian Catholic schools were surveyed using the Early Childhood Beliefs about Learning, Teaching and Religious Education Questionnaire. Following the quantitative analysis, four teachers were purposefully selected to develop rich, descriptive case studies. Classroom practice was observed and documented providing further insights into beliefs and practices with regard to Early Childhood and Religious Education.

Analysis of the quantitative and qualitative data was conducted using three computer software packages including: SPSS, Leximancer and NVIVO. The analysis of data revealed both differences and similarities that exist between teachers' stated beliefs and classroom practice and in particular their pedagogy with regard to Religious Education.

Key findings of the research included a confirmation that early childhood teachers' in Catholic schools generally taught in accordance with their beliefs. It was highlighted specifically that a range of factors impact on teachers' practice, which both support and constrain their practice.

Some of the implications for teachers, teacher educators, providers of professional development are delineated. There is evidence presented in the results that supports the hypothesis that teachers' beliefs do underpin their classroom practice and that there are factors that constrain or support teachers' in their efforts to teach according to their beliefs about learning and teaching. The study highlighted implications for Religious Education in the early years of schooling, for the continued professional development and curriculum development for Religious Education in the early years of schooling.

In summary, this thesis examined the role of Early Childhood teachers' beliefs about learning, teaching and Religious Education and the relationship to classroom practice. It critically explored the impact that a range of factors have on teachers' ability to implement practice that was consistent with their stated beliefs.

LIST OF ADDITIONAL PUBLICATIONS

Meehan, C. (2004). Early childhood teacher's beliefs about teaching and learning and the factors that impact on their practice. *School of Cognition, Learning and Special Education Conference Proceedings.* Volume 3.

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LIST OF ABBREVIATIONS

ACT	Australian Capital Territory
BCE	Brisbane Catholic Education
CSF	Curriculum Standards Framework
DEST	Department of Education, Science and Training
EC	Early Childhood
EQ	Education Queensland
FLA	Foundation Learning Areas
KLA	Key Learning Areas
NCEC	National Catholic Education Commission
NSW	New South Wales
NSWCEC	New South Wales Catholic Education Commission
NT	Northern Territory
OBE	Outcome Based Education
PSCG	Preschool Curriculum Guidelines
QLD	Queensland
QCEC	Queensland Catholic Education Commission
RE	Religious Education
SA	South Australia
TAS	Tasmania
VIC	Victoria
WA	Western Australia

GLOSSARY OF TERMS

Social-constructivist view of learning	This view suggests that the learner is actively involved in their own learning. Play is central to this view, and is how learners construct meaning with others.
Behaviourist/ Traditional view of learning	This view suggests that learners have little control over their own learning. Central to this view is rote learning and the development of skills.
Learner-centred approach to teaching	An approach that views the child in a central position. An approach that focuses on needs, interests and abilities of children. It is emergent and responsive to children.
Teacher-directed approach to teaching	An approach that focuses on the teacher's role in teaching. It is characterized by the level of adult control in classroom decision making and choice of experiences.
Catechetical approach to Religious Education	Or Faith forming approach focuses on the transmission of knowledge, beliefs and attitudes to those being initiated into the religion.
Integrated approach to Religious Education	This approach focuses on assisting children to make links with real life experiences and Religious concepts.
Educational approach to Religious Education	This approach is concerned with the explicit teaching of knowledge and attitudes related to the subject area of Religious Education.

CHAPTER ONE
THE RESEARCH DEFINED

1.1 Introduction

To think is easy.

To act is hard.

But the hardest thing in the world is to act

in accordance with your thinking (Goethe).

Goethe succinctly defines the essence of this study. This research examines early childhood teachers' beliefs about learning, teaching and Religious Education and how this translates to their everyday classroom practice. It is the change in pedagogical practice that is the focus of this study. In particular, the research explores the factors that make 'thinking' and 'acting' accordingly challenging. Brownlee, Berthelsen, Irving, Boulton-Lewis and McCrindle (2000) accentuate the need for educators to examine and reflect on knowledge and beliefs so that the quality of programs for young children can be maintained.

The purposes of this chapter are to (a) identify the sites of the research, (b) discuss the contextual issues that led to the development of the research project, (c) describe the contexts and to justify the grounds for research, (d) discuss the rationale for the research problem, (e) articulate the purpose of the research, (f) outline the evolution of the research questions, (g) briefly describe the nature of the study, (h) explain the significance of the research, and (i) acknowledge the limitations of the study.

The chapter contains the following sections:

- Section 1.2 provides an overview of the research
- Section 1.3 describes the context of the research
- Section 1.4 identifies the research problem
- Section 1.5 reveals the purpose of the research
- Section 1.6 discusses the evolution of the research questions and how these will be addressed in the research

- Section 1.7 outlines the design of the research and briefly discusses how data was obtained in the research
- Section 1.8 explains and provides a rationale for the research and acknowledges the contribution it makes to scholarship
- Section 1.9 highlights the limitations of the research
- Section 1.10 provides an overview of the thesis structure.

1.2 Overview of research

Early childhood teachers as a professional group are recognised world wide as advocates for best practice for children's learning and development (Rodd, 1998). However, as a group of teachers, it is claimed that they are often unable to clearly articulate elements of their practice and at times are unable to teach and act according to their beliefs about how children learn and develop (e.g., Stipek & Byler, 1997). The heart of this research explores the beliefs held by early childhood teachers in Australia and what this looks like in their everyday classroom practice. In particular, the focus of the research looks at how teachers teach Religious Education in an early childhood context.

Religious Education remains an area where there is a paucity of empirical research and the curriculum for young children varies from diocese to diocese around Australia (New South Wales Catholic Education Commission, 2003). For example, White (2004) identified there has been limited research in Religious Education that considered the pedagogy, the learning and teaching of Religious Education. Similarly, Hackett (1995) and earlier Crawford and Rossiter (1985) commented that Religious Education research was focused on subject matter and content, rather than the quality of teaching and learning.

This research examines the factors that enable or constrain teachers' and their ability to teach according to their beliefs are also the focus of the research. In particular, the study:

- Explores early childhood teachers' beliefs about (a) children's learning and teaching in early childhood settings, and (b) learning and teaching with regard to Religious Education in early childhood settings;

- Identifies and confirms a number of factors that impact on teachers' ability to teach according to their beliefs;
- Provides new knowledge and insights to early childhood teachers.

Early childhood teachers from Catholic schools in 28 dioceses of Australia were invited to participate in the two Phase research project. The research drew on both quantitative and qualitative methodologies to seek answers to the research questions outlined in Section 1.6 of this chapter. With the aim of generating new ideas and contributing to the existing knowledge about early childhood teachers' beliefs and practice, this research contributes to the early childhood and Religious Education fields of literature.

1.3 Research context

A complex set of contexts provided the backdrop for this research. This research is impacted by three main dimensions: changing views of education at both the international and national level, current trends in early childhood education that provide new understandings of how children in the early years best learn, and conceptualizing schooling from a Catholic perspective. Each of these dimensions impact on the nature of the research, and the research also illuminates issues for these contexts. The next section summarises the main issues that each of these brings to the research and in particular how each impact on the conceptualization of Religious Education in the early years.

1.3.1 Changing view of education

In the field of education, change is rapid (Arthur, Beecher, Dockett, Farmer & Death, 2005). Diversity of race, cultures, languages, religions, beliefs, values and traditions are all characteristics of the pluralist society of the twenty-first century. Educational change is examined at three levels, namely, (1) International, (2) National, and (3) Local.

At the International level, education is seen as a global, inclusive and lifelong endeavour not just confined to educational institutions. Curriculum change and reform in the later part of the twentieth century continued to examine old methods and practice and replace them with new goals, policies and reports. For example, Delor's (1996) Four Pillars of Education "Learning to be, learning to do, learning to

live together, learning to know", represent the move towards promoting learning of skills and attitudes for life rather than knowledge.

Nationally, Australian State and Federal governments responded with aspirational statements about the future of education for all Australian citizens for the new millennium. The preamble of the *Adelaide Declaration on National Goals for Schooling in the Twenty-first century* (Department of Education, Training and Youth Affairs, 1999) stated:

> Australia's future depends upon each citizen having the necessary knowledge, understanding, skills and values for a productive and rewarding life in an educated, just and open society… Schooling provides the foundation for young Australians' intellectual, physical, social, moral, spiritual and aesthetic development. By providing a supportive and nurturing environment… contributes to the development of students' sense of self worth, enthusiasm for learning… (p. 1)

The above statement indicates a number of desired outcomes for Australian schools in the new century. In particular, several dimensions of learners that need to be developed through schooling are identified and the role of a supportive environment in education is acknowledged.

The Australian Federal Government has had a long history of being involved in the development of policy and funding education, which has often been linked to political agendas. Both the Federal and State/Territory governments have a social obligation to provide free education. This has not always been the case for Catholic and other Religious or Independent Schools. Recent government policies have supported the ideologies associated with the free market, globalization and economic rationalism. Consequently, reform in education has occurred to meet these changed directions. Education is becoming increasingly politicised (Somekh & Lewin, 2005). Carr (2001) suggested that 'governments are requiring national curricula and universal measurements of individual achievement' (p. 19). Nelson (2003) the Federal Minister for Education outlined a plan for uniformity of education around Australia, including a common curriculum, and starting age for students within the next 10 years (Nelson, 2003). This may require early childhood teachers to implement changes to current curriculum to come into line with the National plans. The current variations between states and territories are highlighted below. The Draft National Agenda for Early Childhood (2004), an initiative of the Howard Government, promoted strategies and

issues that impacted on children's learning in the early years. The main aim of this agenda is to provide a structure to link programs for children from birth to five years including education, care and welfare agencies and providers. The early years of life are viewed by the government as worthy of investment for the future.

Locally, each state and territory responded to the international and national trends by implementing curriculum that reflects the diverse nature of their state and territory within a National Curriculum Standards framework. This framework's goals were outlined in the *Adelaide Declaration on National Goals for Schooling in the Twenty-first Century* (1999). For example, eight key learning areas were agreed to. These included the Arts, English, Health and Physical Education, Languages other than English, Mathematics, Science, Studies of Society and Environment and Technology. Students are expected gain knowledge, skills and understanding of the eight Key Learning Areas (DETYA, 1999).

Early childhood education in Australia caters for children from birth to eight years. Typically, children commence a pre-primary year before compulsory schooling commences in year one. In the pre-primary years, children in Australia are aged between four to six years of age. This varies from state to state, as do the names of the first year of schooling. Table 1.1 shows the differences by state, name of the year, attendance and the age of entry for year one at the time the research was conducted.

Table 1.1

Provision of pre year 1 education in all states and territories of Australia (Education Queensland, 2002)

State	Name of Program	Length of Session	Type of attendance	Curriculum/ Syllabus/ Guidelines documents	Age of entry for year 1
ACT	Kindergarten	Full day, 5 days per week	Non-compulsory	K-10 Syllabus documents, Outcomes Based for all KLAs	5 turning 6 before April 30
NSW	Kindergarten	Full day, 5 days per week	Non-compulsory	K-6 Syllabus documents, Outcomes Based for all KLAs	5 turning 6 before July 31
NT	Transition	Full day, 5 days per week	Non-compulsory	P-12 Syllabus documents, Outcomes Based for all KLAs	5 years 6 months by January 1
QLD	Preschool	'Half time', 5 days per fortnight	Non-compulsory	Preschool Curriculum Guidelines / Early Years Guidelines-play based	5 turning 6 by December 31
SA	Reception	Full day, 5 days per week	Non-compulsory	SA Curriculum Standards and Accountability Framework, Birth to 8 years, Outcomes Based for all KLAs	5 years 6 months by January 1
TAS	Preparatory	Full day, 5 days per week	Non-compulsory	K-10 Essential Learnings Framework, Outcomes Based for all KLAs	6 (must be 6 before 1 January)
VIC	Preparatory	Full day, 5 days per week	Non-compulsory	P-12 Curriculum Standards Framework, Outcomes Based for all KLAs	5 turning 6 before April 30
WA	Pre-Primary	Full day, 5 days per week	Non-compulsory	K-12 Curriculum Standards Framework, Outcomes Based documents for all KLAs	5 turning 6 by June 30

In all states and territories, the 'pre-primary' year is non-compulsory. Children in this age group in all states and territories, with the exception of Queensland, attend five full days a week. With the introduction of a Preparatory year in all schools in 2007, all children in Queensland will commence five-day, full-day attendance. This change will also see the age change for entry into year one from six before December 31 to six before June 30 (Education Queensland, 2002). However, at the time of data collection, participants from Queensland worked in preschools, not preparatory classes. Table 1.1 also highlights that Queensland is the only state that has a stand-alone curriculum for the preschool/preparatory year. All other Australian states and territories have incorporated the curriculum for the 'pre-primary' year of schooling into the wider framework.

1.3.2 Current trends in Early Years education

Four current trends that impact on early years' teachers' work and specifically impact on the research have been identified. These are: (1) reconceptualizing children and childhood, (2) curriculum and pedagogical issues, (3) accountability for funding, and (4) current research and impact on practice.

Firstly, reconceptualizing children and childhood has occurred in the past two decades as government has increasingly recognised the importance of the early childhood years. The diversity of families and society has seen an increase in the number of sole parent families (Elliott, 2004), and families in which both parents are employed (Australian Bureau of Statistics, 2003). These changes are indicative of broader societal trends that impact on children, childhood and families.

In the past fifty years, there have been major social, political, economic, and technological changes that have impacted on children and families (Ryan & Grieshaber, 2005; Arthur et al., 2005). Local and social 'neighbourhood' communities of the 1950s have been replaced by new "cyber communities", such as online chat rooms to seek advice from others about issues related to children and raising children. Sporting teams, workplaces and other groups meet the social needs of individuals rather than traditional family, church and neighbourhoods (Arthur et al., 2005). These changes have had an impact on children's lives and influenced their identities and the way they are viewed as learners.

Secondly, in response to new understandings of children, curriculum and pedagogical changes have occurred. Ryan and Grieshaber (2005) articulated the challenges faced by educators in developing practice that reflects the diversity of

children. This view negates a 'universal' image of children and recognises multiple childhoods. Old ways of knowing and doing are challenged as early childhood teachers explore new practices that reflect 'post modern life' (Ryan & Grieshaber, 2005). Consequently, a range of approaches to curriculum exist for the early childhood settings in Australia (See Table 1.1). For example, in Queensland, the development and implementation of the Preschool Curriculum Guidelines (Queensland Studies Authority,1998) formalised and added value to the play-based curriculum found in many preschools. In all other Australian states and territories, pre-primary classrooms have adopted a curriculum for their year level which is outcomes based and fits with the National Curriculum Framework. White (2004) and Cole (2001) noted that four states (Western Australia, South Australia, Queensland and Tasmania) have embarked on a process of reviewing curriculum frameworks and pedagogy that will mean better outcomes for learners. These frameworks appear to be grounded in constructivist approaches to learning and teaching (White, 2004).

Thirdly, accountability has been a driving force for change. Internationally for the past three decades, there has been concern about the pressure on early childhood teachers to provide an academic curriculum in the year before formal schooling commences (e.g., Hatch & Freeman, 1988; Hitz & Wright, 1988; Kamii, 1985; Kessler, 1991; Smith & Shepard, 1988a; Stipek & Byler, 1997). Linked with this pressure, governments have tied funding for increased levels of literacy and numeracy outcomes (Kamii, 1985; Willert & Kamii, 1985). This remains a current emphasis (Pianta & Cox, 1999). It tends to be a time of increased pressure for young children to acquire literacy and numeracy skills. Hence the focus of many pre-primary programs is academic, rather than allowing children to explore and make sense of their world through play. Australian early childhood teachers in the past decade have faced similar challenges (Hatch & Grieshaber, 2003).

The need for accountability has a direct impact on key issues impacting on children's learning. An example of this lies in how the notion of "readiness" for school is defined. In NSW, for example, readiness is defined as being able to hold a pencil correctly and knowing the alphabet (New South Wales Education Council, 2003). In Queensland, readiness for school is defined differently. The Queensland Studies Authority place an emphasis on continuity of learning and building links "between children's prior experience and the future learning in schooling contexts" (Queensland Studies Authority, 2003, p. 2). A holistic approach is supported and

children are viewed as lifelong learners. The Draft Early Years Guidelines states: "Children will become knowledgeable with deep understandings, complex thinkers, creative persons, active investigators, effective communicators, participants in an interdependent world, and reflective and self-directed learners" (QSA, 2003, p. 4).

Fourthly, current research has impacted on classroom practice. The notion of Developmentally Appropriate Practice (DAP) proposed in the 1980s, which used child development theories as a basis of curriculum appropriate for young children, has been challenged and replaced by new understandings grounded in research (Bredekamp & Copple, 1997). Arthur et al. (2005) revived the argument about the limitations of DAP and gave credence to other theorists including socio-cultural, post-modernists and post-structuralists.

1.3.3 Catholic Schooling and Religious Education

The Catholic Church and Vatican documents provide a focus for the curriculum area of Religious Education. The Catholic Church has a stance on many moral, ethical and social justice issues, and at the commencement of the twenty-first century, the Church faces many challenges. Some of these include the increased marginalization of Christianity, changes in societal values, and the diverse nature of societies and schools (Sacred Congregation for Catholic Education, 1977; Wellbourne, 2001). In the post-Vatican II years, several documents have examined the role and purpose of Catholic schools and in particular, the role of teachers (e.g., Sacred Congregation for Catholic Education, 1982, 1988, 1997). These documents provide substantial direction for the nature and purpose of Religious Education within the context of a Catholic School. For example, the *Religious Dimension of the Catholic School* (1988) stated that:

> Students come from diverse backgrounds and varied Religious exposure. Not all students in Catholic schools are members of the Catholic Church; not all are Christians. There are, in fact, countries in which the vast majority of the students are not Catholics… the religious freedom and personal conscience of individual students and their families must be respected, and this freedom is explicitly recognised by the church. On the other hand, a Catholic school cannot relinquish its own freedom to proclaim the gospel and to offer formation based on the values to be found in Christian education; this is its right and duty (Sacred Congregation for Catholic Education, 1988, para.6).

Students attending Catholic schools reflect a wide range of diverse backgrounds (Lovat, 2001; Wellbourne, 2001). The backgrounds of children enrolled in Australian Catholic Schools are diverse in race, culture, religion and beliefs. Wellbourne (2001) also commented on the disparity that exists between the values of school and home. Hence, a crisis for Religious Education curriculum exists and questions are being raised about maintaining the Church's beliefs, values and rituals in the face of changing and sometimes conflicting beliefs and values of society.

The role of teachers in Catholic schools is clearly delineated in the documents of the Church. In "The Catholic School" (1977) the role and mission of Catholic Schools was described as "a synthesis of culture and faith, and a synthesis of faith and life" (Sacred Congregation for Catholic Education, 1977, paras. 36-37). In "The Catholic School on the Threshold of a New Millennium", Catholic schools are viewed as a place of cultural pluralism (Sacred Congregation for Catholic Education, 1997, para 16). The documents translate as guides for behaviour and ideals for those working in lay ministries in the Church.

In the new millennium, Wellbourne (2001) and others suggested that the purpose of Catholic schools "is the maintenance of values, beliefs and attitudes that characterise the culture of Catholic schools intrinsically related to purpose, to be schools identified as Catholic community" (p. 54). Change in the Church has occurred since the Second Vatican Council and the role of the church in the modern world, the role of teachers, lay people and the Religious have been the focus of many Church documents. (e.g., Sacred Congregation for Catholic Education, 1977, 1982, 1988, 1997).

In practice, Catholic Schools in Australia come under the auspices of Catholic Education Offices around Australia, which are agencies of the Catholic Church. There are 28 individually administered Diocesan Offices across Australia. Table 1.2 provides a state by state overview of the diocese participating in this research. The table includes Religious Education syllabus/ guidelines/ text and the underpinning approaches.

Table 1.2

Diocese by state/territory, syllabus name and underpinning approach (National Catholic Education Commission, 2005)

State	Diocese	Syllabus/ Guidelines/ Text name	RE approach underpinning document
NSW	Armidale	Celebrating our journey	Based on Shared praxis
	Bathurst	The Christ we proclaim	Supported syllabus document with units
	Broken Bay	K-12 Religious Education curriculum	Based on Shared praxis
	Canberra	Treasures old and new	Based on Shared praxis
	Goulburn		
	Lismore	K-12 Religious Education guidelines	Education in faith, based on the theology of the Catechism
	Newcastle	K-12 Religion Syllabus	Integrated approach, strands, knowledge and outcomes
	Parramatta	Sharing our story	Based on Shared praxis
	Sydney	To know, worship and love	Faith approach, developed in Melbourne
	Wagga Wagga	Sharing our story	Based on Shared praxis
	Wilcannia Forbes		Based on Shared praxis
	Wollongong	To know, worship and love	Faith approach, developed in Melbourne
QLD	Brisbane	Archdiocese of Brisbane Religious Education Syllabus, Yrs 1-10	Religious Literacy, educational, profiles and statements
	Cairns	RE guidelines (P-7)	Based on Perth guidelines
	Rockhampton	Under development, based on Brisbane	
	Toowoomba	Diocesan Religious Education guidelines	Based on Brisbane guidelines, profiles and statements
	Townsville	RE guidelines	Based on Brisbane guidelines, profiles and statements
SA	Port Pirie	Religious Education Curriculum guidelines	Educational, outcomes based content, knowledge, attitudes and skills
TAS	Hobart	Good news for living	Based on Shared praxis & integrated brain-based pedagogical framework
VIC	Ballarat		Based on Shared Praxis
	Melbourne	To know, worship and love	Faith approach, developed in Melbourne
	Sale	Journeying together in hope	Based on Shared praxis
	Sandhurst	Source of Life	Based on shared praxis, education and catechesis
WA	Broome, Bunbury, Geraldton, Perth	Archdiocesan Religious Education Units (Perth)	Integrated approach, faith development is viewed separated to Religious Education

Each individual diocese has developed their own Religious Education curriculum documents and these reflect the priorities and vision of the local area and Bishops. It is clear in the above table, that some dioceses have collaborated to develop curriculum documents based on research about learning, teaching and current Religious Education priorities in the diocese and state context. For example, a 'faith' approach was evident in the Melbourne Archdiocese Religious Education text; a shared praxis approach underpins Parramatta and Hobart diocese documents; and an educational or Religious literacy approach to learning and teaching Religious Education in the Brisbane Archdiocese documents. These will be discussed further in Chapter Two.

1.4 Identification of the research problem

The research problem can be succinctly defined as an exploration of early childhood teachers' beliefs and practices. It examines the nature of teachers' beliefs and factors that impinge on classroom practice. Section 1.6 articulates the research problem in the form of research questions. This exploration identifies practices that occur with regard to teaching in early childhood setting and with regard to the teaching of Religious Education. The intent of the research is that teachers' stories will be told and examples of a range of current early childhood practice will be highlighted.

The selection of an issue to research is derived from the author's own experience as a classroom teacher and teacher educator. For the first ten years of her career, the author taught in a range of early childhood settings and it was not until commencing work within the tertiary sector with pre-service teachers and other early childhood students that the issue of beliefs and their impact on practice became a burning question. It is also borne out of experience of working in a Catholic school and teaching Religious Education with preschool children. This quest continued as the author worked with many pre-service teacher education students at the *Australian Catholic University* (ACU), *Griffith University* (GU) and *Queensland University of Technology (QUT).*

'Beliefs' was the term chosen by the researcher, to best describe the attitudes and personal and professional knowledge of teachers under investigation. It is a term used frequently in the literature, and it's commonly used to refer to the nature of teacher's thinking, as naïve or informed construct that underpins teacher's

knowledge, as intrinsically or extrinsically influenced and as attitudes. For the purpose of this study, 'beliefs' were used with the participants as a term they could identify with as part of their common understandings.

1.5 Purpose of research

Having already highlighted the climate and context of the research, the learning and teaching of Religious Education as a curriculum area in early childhood settings in Australia is the main focus of this study. Religious Education is the focus of the study as it is a distinguishing feature of Catholic schools. It is an area with a paucity of research. This study seeks to understand the factors that influence beliefs and practices of early childhood teachers in Catholic schools in Australia. In essence, the purpose of the research is threefold:

(1) To identify the nature of teachers' beliefs about learning, teaching, and Religious Education by illuminating their current practice;

(2) To explore the factors that influence teachers' behaviour;

(3) To analyse the current teaching practices for Religious Education in early childhood classrooms in Australian Catholic schools.

1.6 Research questions

The seven research questions below direct the study in the exploration about early childhood teachers' beliefs about learning and teaching with regard to Religious Education. Each question is presented separately, however each question is linked and maintains an interactive relationship with other questions. These questions are derived from the research problem presented in sections 1.4 and 1.5. Each question has evolved throughout the study and was explored comprehensively.

Research Question 1: What are early childhood teachers' beliefs about children's learning?

This question explores the current and past constructions of what constitutes early childhood teachers' knowledge, beliefs and attitudes towards the processes involved in young children's learning. By exploring this question, commonly held beliefs

identified in the literature can be tested with early childhood teachers. This question was explored using both quantitative and qualitative methods.

Research Question 2: What are early childhood teachers' beliefs about teaching?

Similar to the previous question, Question 2 seeks to examine the current knowledge, beliefs and attitudes of early childhood teachers with regard to pedagogy and teaching approaches considered appropriate to young children. Questions 1 and 2 are closely linked. This question was explored using both quantitative and qualitative methods.

Research Question 3: To what extent do teachers' beliefs about teaching and learning differ according to state, age, gender, qualification and number of years teaching?

Question 3 provides an opportunity for the factors impacting on teacher beliefs to be explored primarily using both quantitative and qualitative research methodologies. It was hypothesised that the research process may uncover factors specific to the early childhood teachers' contexts that impact on their daily classroom practice. A number of sub-questions are examined in Chapters five and six.

Research question 4: What are early childhood teachers' beliefs about children's learning in Religious Education?

Question 4 builds on Question 1, but looks at it through a Religious Education lens. This is an aspect of research which is limited and the researcher considered the opinions found in the literature. There was limited empirical data in the literature that examines early childhood teachers' beliefs about learning in the area of Religious Education. This question was explored using both quantitative and qualitative methods. Comparisons can be made between questions 1 and 4. They both focus on children's learning and the researcher expected to find similarities, but it was hypothesised that the subject area may impact on the way in which the question was answered.

Research question 5: What are early childhood teachers' beliefs about teaching Religious Education?

Question 5 is similar in nature to Question 2. This question was designed to explore the teaching approaches and pedagogy used by early childhood teachers when teaching Religious Education. This question was explored using both quantitative and qualitative methods. It is related to Question 2 and was used to examine whether

early childhood teachers use different teaching approaches and pedagogy when teaching a subject like Religious Education.

Research question 6: To what extent do teachers' beliefs about teaching and learning Religious Education differ according to curriculum document type, age, gender, qualification and number of years teaching?

Question 6 provides an opportunity for factors impacting on teacher beliefs to be explored primarily using both quantitative and qualitative research methodologies. It was hypothesised that the research process may identify factors specific to the early childhood teachers' contexts that impact on their daily classroom practice. Five sub-questions are examined in Chapters Five and Six.

Research question 7: To what extent do teachers' beliefs about teaching and learning relate to their beliefs about teaching and learning Religious Education?

Question 7 is the final question of the research. This question aims to investigate the relationship between early childhood and Religious Education beliefs about learning and teaching. Specifically, it explores the following sub-questions: (1) Does the teacher's practice match their beliefs? (2) Does the teachers' practice change between everyday early childhood teaching and the teaching of Religious Education? and, (3) If it does change, why does that occur? This question is related to all other questions and seeks to identify whether or not early childhood teachers adopt practices when teaching Religious Education that differs from their day to day pedagogy in their classroom. This question is considered in the final chapter of this thesis.

1.7 Outline of the research design

As outlined in Section 1.6, the research questions are both quantitative and qualitative in nature. This chapter provides an overview of the research design. Howe and Eisenhart (1990) stated "research questions should drive data collection techniques and analysis rather than vice versa" (p. 5). The research adopted this approach with respect to data collection and analysis. Figure 1.1 illustrates the relationships that exist between the research questions, the methods of data collection and analysis. A mixed method approach to data collection and analysis was used in the two-phase study.

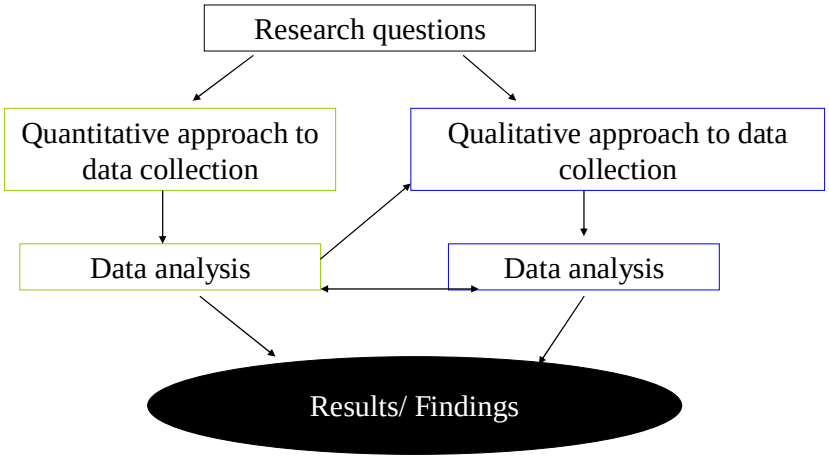

Figure 1.1. Research design overview.

The above figure depicts the relationship between the research questions and the methods selected to answer the research questions. As indicated earlier, the approaches used in the study were dictated by the nature of the research questions. Each method had its own benefits and these will be discussed further in Chapter Three. Chapter Three will also address issues such as research design, sampling, data collection methods, data analysis methods, validity and reliability issues.

1.8 Rationale of the research and contribution to scholarship

This research is highly significant. It is the first of its type to be conducted in an Australian context. There have been three studies conducted in the United States and one in Australia, which contain minor elements of the study. For example, Smith (1992) developed a Primary Teacher Questionnaire. This 42 item scale was grounded in the National Association for the Education of Young Children Guidelines for Appropriate Practice in the Primary Grades. It was administered to 144 primary teachers and early childhood pre-service and in-service teachers.

Cory (1995) built on Smith's work and under his supervision conducted a study of Protestant Christian school teachers' beliefs about developmentally appropriate practices from kindergarten to year two. It focused on teacher self-reported practices

and the locus of control orientation. The sample included 157 teachers from eight regions of the United States. Smith's instrument (1992) was adapted and administered to the participants. Similarly, under Smith's supervision, Cherek (1997) investigated the relationship between developmentally appropriate philosophy and religious education methodology in second grade classrooms. In this study, both qualitative and quantitative methods were used for data collection and analysis. Cherek (1997) adapted the instrument used by Smith (1992) and Cory (1995) and designed a semi-structured interview for the participants.

Simonis (1996), in one other Australian study, explored the relationship between an educator's beliefs and educational endeavour in Religious Education. The sample included two parents, two primary teachers and two secondary teachers. Simonis (1996) designed an instrument to explore beliefs and practice.

White (2004), in another Australian study, investigated the pedagogical practices in Religious Education in Tasmanian Catholic primary schools. This study contended that teachers have and use a broad range of teaching approaches to all KLAs, but they were not able to translate these to Religious Education learning and teaching. Reasons for this inability included limited thinking skills, students' not encouraged to construct own meaning in Religious Education, a lack of academic challenge, assessment tasks focusing on lower level outcomes, and teachers' reliance on transmission models for learning and teaching when unsure of the area of teaching (White, 2004, p. 2).

The previous studies highlight the unique perspective taken by this research. It explored the beliefs and practice of early childhood teachers in Catholic schools in Australia with regard to Religious Education. There is a gap in the literature which will be described in Chapter Two. To date, there has not been a study conducted in the fields of Early Childhood and Religious Education with this particular focus. It is anticipated that this research will build on the previous studies and highlight the learning and teaching beliefs of early childhood teachers in Catholic schools and examine the factors that impact on their practice. It is the change in pedagogical approaches that occurs between early childhood teaching and Religious Education, and the reasons why the change occurs that is the focus of this study.

1.9 Limitations of the research

Exploring early childhood teachers' beliefs and practice and the factors that impact on a teacher's ability to teach in accordance with their beliefs was the primary purpose of this research. The research was conducted within the curriculum area of Religious Education. It is acknowledged at this point of the thesis that the study was limited in its scope and that there are other aspects requiring further study. Four limitations of the study are delineated in this section of the chapter.

Firstly, the nature of research questions as outlined in section 1.6 limits the scope and the type of data collected in the research. Consequently, the choice of methodology, namely a mixed method approach to data collection and analysis, has limitations on the study. There were many positive reasons for using a mixed method approach to collecting data. These include the ability to confirm data from another source and to have both statistical data as well as rich, descriptive data. There are also limitations to this approach. Although, the data gained from Phase One is generalizable, the data collected in Phase Two limited the ability to generalise results to other studies.

Secondly, in Phase One, early childhood teachers from six states of Australia were invited to participate. The number of responses was acceptable. However, the inclusion of teachers from a number of states increased the complexity of the study. Similarly, in Phase Two, where four teachers were selected and studied in depth, each teacher came from a different diocese. The four teachers were all female as no male teachers from Phase One volunteered to participate in Phase Two. By limiting the second phase of the study to four teachers, it has meant that the study was more manageable and that case studies about teachers could be richer with greater depth and insights into teachers' beliefs and practice.

Thirdly, the study was limited to early childhood teachers in Catholic schools in Australia. They were selected because of the Religious Education component of the study. As outlined in Section 1.3.3, the teaching of Religious Education is a key aspect of the teachers' role in a Catholic school.

Fourthly, the research only considers the perspectives of teachers. Although early childhood teachers work in contexts with children, families and other colleagues, it was the teacher's perspective that was the focus of the research. The same research

questions could be applied to principals or other groups of teachers. It was necessary for the management of the project to target a specific group and work within these limitations.

1.10 Outline of the thesis

A brief outline of the structure of the thesis, *Thinking and Acting: Exploring Australian early childhood teachers' beliefs and practice with regard to learning, teaching and Religious Education,* is provided. Excluding this introductory chapter, which has outlined the research and put it into context, the thesis has seven chapters.

Chapter 2 Review of the Literature, is a synthesis of the literature related to the nature of teachers' beliefs. In particular, a discussion about early childhood teachers' beliefs about learning and teaching, early childhood teachers' beliefs about Religious Education and factors that impinge upon the beliefs and practice relationship are presented. The review of the Literature covers both the fields of Early Childhood Education and Religious Education; in particular, beliefs and knowledge related to learning and teaching.

Chapter 3 Methodology, explicitly describes the nature and design of the methods used to collect and analyze data in this thesis. The chapter provides a justification for using a two-phase study employing both quantitative and qualitative methods.

Chapter 4 Pilot Study, provides a detailed discussion about the development and trial of the *Early Childhood Teachers' Beliefs about Learning, Teaching and Religious Education* instrument. This instrument measures early childhood teachers' beliefs about learning, teaching and Religious Education.

Chapter 5 Quantitative Results/ Findings, presents the results from the quantitative data collection and analysis phase. This chapter describes the processes used to collect and analyze data.

Chapter 6 Qualitative Results/ Findings, presents the results from the quantitative data collection and analysis phase. This chapter tells the stories of teachers who represent categories selected from Phase One of the research.

Chapter 7 Summary, Discussion, Conclusions and Recommendations provides a critical discussion of the findings within the context of the literature. This chapter

also includes a review of the research and addresses the research questions. The conclusions and recommendations for teachers, professional development providers, teacher educators and Catholic Education Offices are outlined in this chapter.

Appendices (A- E) hold the documentation supporting the thesis. These will assist the reader to clarify or to find further information on the research. The Appendices include (A) Pilot Instrument, (B) *ECTBLTRE* instrument, (C) Ethical clearance to conduct study, (D) Information sheets and consent forms for Diocesan Directors, Principals and Participants, and (E) Semi-structured interview schedule.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

> Teaching is an art guided by educational values, personal needs, and by a variety of beliefs or generalizations that the teacher holds to be true (Eisner, 1994, p. 154).

This statement reflects the importance of beliefs and practice in this study. Teachers' beliefs underpin classroom practice (Chan, 2003; Charlesworth, Hart, Burts, & Hernandez, 1991; Charlesworth, Hart, Burts, Thomasson, Mosley & Fleege, 1993, Einarsdottir, 2001). Stipek and Byler (1997) suggested that early childhood teachers do not always practice what they preach. Studying teachers' beliefs provides an opportunity for teachers to reflect on their own professional learning. Specifically, research into teachers' beliefs and practice was challenging and confrontational.

This research examines teachers' beliefs and practice with regard to teaching, learning and Religious Education in early childhood settings. There are four major sections to the literature review. Firstly, the nature of teachers' beliefs and the factors that impact on beliefs and the effects on classroom practice are examined. Secondly, early childhood teachers' beliefs about learning are presented. Thirdly, early childhood teachers' beliefs about teaching are explored. Fourthly, teachers' beliefs about learning, teaching and Religious Education in early childhood settings are discussed.

2. 2 Beliefs and practice

2.2.1 What are beliefs?

Teachers' beliefs have been frequently examined in the literature. In the past thirty years there have been more than fifty studies. The majority of these studies have been conducted in other areas of education, these include mathematics (e.g., Mewborn, 2002; Nisbet & Warren, 2000), science (e.g., Bielenberg, 1993; Haney, 1996; Haney & McArthur, 2002), higher education (e.g., Brownlee, 2004), early literacy (e.g., Ure & Raban, 2001), the teaching of reading (e.g.,Grisham, 2000),

children's development (e.g., Smith & Croom, 2000), and pre-service student teachers (e.g., Brownlee, Purdie & Boulton-Lewis, 2003; File & Gullo, 2002; Smith, 1997). However, there is often a difference between rhetoric and reality for early childhood teachers (Stipek & Byler, 1997). Beliefs provide insight into teachers' thinking and actions (Pajares, 1992). Tillema (1995) described beliefs as knowledge or the "working capital of the professional" (p. 291).

Beliefs guide behaviour (Pajares,1992) and they have a range of characteristics. The range includes, beliefs can be vague suspicions to complete convictions; beliefs can be reasonable or unreasonable in nature; beliefs can be descriptive, evaluative or prescriptive; and, beliefs are dynamic, they are not static and can vary from one context to another. Beliefs are elastic and can be shaped for a specific context (Mueller & Ziedler, 1988; Pajares, 1992; Smith & Shepard, 1988b).

Beliefs have been defined in the literature in a range of ways. For example, Smith and Shepard (1988) described beliefs as 'schema' or tentative models. The implicit theories teachers hold with regard to children's learning and the most effective strategies for teaching are powerful influences on the classroom environment (Isenberg, 1990; Pajares, 1992; Spodek, 1988). Beliefs have been described as subjective and based on evaluative decisions (Smith & Shepard, 1988), but they may also be based on objective fact (Pajares, 1992). Beliefs are a form of knowledge, both personal and professional (e.g., Buchmann, 1987; Clandinin & Connelly, 1987). It is this 'knowledge' that is examined in this study.

Knowledge in action is another way in which beliefs have been described in the literature (McMeniman & Wilson, in press). This research drew on earlier work by Shulman (1987) who described seven types of knowledge. These types include: content knowledge, general pedagogical knowledge, curriculum knowledge, pedagogical content knowledge, knowledge of learners and their characteristics, knowledge of educational contexts and knowledge of educational ends, purposes and values.

It appears that teachers' personal beliefs have a greater impact on practice than external factors (Nelson, 2000). In this American study of four early childhood teachers, all of the teachers' beliefs were enacted in their classroom practice. It was suggested by Nelson (2000) that beliefs, education, past experience and personality or 'personal' factors had a greater impact on practice than 'environmental' factors such as a supportive work environment or physical environment.

An Australian study of pre-service teachers explored early childhood teachers' naïve and informed beliefs about learning and teaching (Brownlee, Dart, Boutlon-Lewis & McCrindle,1998). Naïve beliefs were described as those beliefs not grounded in theoretical knowledge whereas informed beliefs were grounded in theoretical knowledge (Brownlee et al., 2000). The student teachers integrated naïve and informed beliefs and reflected on this during periods of study rather than during teaching practicum (Brownlee et al., 1998). In a subsequent study, Brownlee, Berthelsen, Irving, Boulton-Lewis and McCrindle (2000) continued to explore the notion of beliefs as being naïve or informed. This study involved infant caregivers and found that child care staff integrated naïve and informed ideas in order to justify their practice (Brownlee et al., 2000). Similarly, Wilcox-Herzog and Ward (2004), in a study of American child care workers examined early childhood teachers' beliefs and intentions with regard to the interactions with young children.

It appeared that beliefs are built on personal values, attitudes and experiences. Beliefs are also seen as being adaptable to a range of contexts and the literature supports the notion that beliefs are a form of knowledge that guide and direct teaching practice. Beliefs can be indicative of the relationship that may exist between teachers' beliefs and classroom practice.

2.2.2 Relationship between teachers' beliefs and practice

Understanding teachers' beliefs provides an insight into teachers' thinking and actions (Pajares, 1992). If beliefs are viewed as a form of knowledge, this provides a basis for teachers' direction and decision making. Similarly, Spidell-Rusher (1992) suggested that teacher beliefs and practice are related. This was evident in this study by the teachers' beliefs about children's learning and the selection of teaching strategies (Spidell-Rusher, 1992). Similarly, Erricker, Erricker, Sullivan, Ota and Fletcher (1997) emphasised that theories and beliefs impact on teaching the most fundamental level. They also highlighted that we are all 'meaning makers' and are attempting to make sense of our environments and experiences with individual and collective knowledge and skills (Erricker et al., 1997).

Teaching and classroom practice have been described as a science and an art (Hill, Stremmel & Fu, 2005). Within this viewpoint, teaching is grounded in theories, both educational theories and the personal theories of teachers. Individual teachers enact their 'theories' in everyday classroom contexts (Hill, Stremmel & Fu, 2005). Practice has been described in the literature as being observable (Smith, 1988b). In this

study, beliefs and practice were linked by acknowledging that practice was influenced by thinking and included a cognitive element (Smith, 1988b).

Research in the area of early childhood teachers' beliefs and practice, although limited, has been consistent with general educational research. That is, there is generally congruence between teachers' beliefs and practice. In fact, teacher's classroom practice is reflective of their beliefs (Bryant, Clifford, & Peisner, 1991; Charlesworth, Hart, Burts, & Hernandez, 1991; Charlesworth et al., 1993; Davis, Konopak & Readence, 1993; Hatch & Freeman, 1988; Kagan & Smith, 1988; Kemple, 1996; Smith & Shepard, 1988; Stipek, 1997; Tomchin & Impara, 1992; Smith & Shepard, 1988a; Spidell-Rusher, 1988; Wing, 1989). Early childhood educators often have clear ideas about the elements of good programs but have difficulty in articulating their beliefs (Haupt & Ostlund, 1997; Spodek, 1988; Stipek, Rosenblatt, & DiRocco, 1994). Czerniak and Lumpe (1996) argued that teachers' beliefs are not always consistent, in particular when curriculum reform is an issue. Einarsdottir (2001) found that preschool teachers in the Icelandic study had no difficulty in describing their practice. Difficulties for teachers arose when they had to explain why they chose that practice. Generally, teachers' practice was consistent with their beliefs (Einarsdottir, 2001).

The relationship between beliefs and practice is complex. Both intrinsic and extrinsic factors impinge on beliefs and practice. Charlesworth et al. (1991) and others identified several factors that are internal to an individual teacher (Charlesworth et al., 1993; Smith & Shepard, 1988b; Stipek & Byler, 1997). These include beliefs, knowledge (both theoretical and practical), values, stress, experience, attitudes, and feelings of self-worth, self-efficacy, self-esteem and locus of control. The research suggests that these factors are unique to individuals and can exert a significant influence on one's perception and actions (Charlesworth et al., 1991; Charlesworth et al., 1993; Smith & Shepard, 1988; Stipek & Byler, 1997)

Current research suggests that education and training are good predictors of a congruent relationship between beliefs and practices (Wilcox-Herzog & Ward, 2004). A teachers' beliefs instrument was developed in this study in order to ascertain the developmental appropriateness of teachers' beliefs. Similarly, Arnett (1989), Buell and Cassidy (1996), Howes, Phillips and Whitebook (1992), Kontos, Howes, Shinn and Galinsky (1995) and McMullen and Alat (2002) studied the relationships that exist between early childhood teachers' education and their beliefs and practice. It

was reported by McMullen and Alat (2002), that there was a correlation between the level of education and level of developmental appropriateness of teachers' beliefs. That is, the higher the level of education the more likely teachers' beliefs and philosophy was aligned with developmentally appropriate practice.

Similarly, Cassidy and Lawrence (2000) identified in their research that teachers with higher levels of education were more able to communicate their beliefs. Also, White (1992) described an example of a negative self-fulfilling prophecy and the impact of attitudes and beliefs on practice. This example highlights the need for education and training of early childhood teachers and the positive impact this has on practice.

Another factor reported in research is perceived pressures. For example, Spidell-Rusher, McGrevin, and Lambiotte (1992) found that kindergarten teachers perceived an increasing emphasis on academic skill development and first grade curriculum being pushed down as factors influencing their practice. This was an intrinsic factor, a pressure perceived by teachers that influenced their classroom practice.

Extrinsic factors are more visible and observable. The literature identified several factors that may influence teachers' beliefs. These include:

- Formal education
- Social networks
- Classroom Structure
- Colleagues
- Principals/ Administration
- System policies
- Laws and regulations
- Experience
- Familiarity with content of curriculum area
- School climate and philosophy
- Parents beliefs and expectations
- Interactions with children
- Year level taught

(Abbot-Shim, Lambert, & McCarty, 2000; Aston & Hyle, 1997; Bean, Fulmer, Zigmond & Grumet, 1997; Cronin-Jones, 1991; Davis et al., 1993; Ernest, 2001; McMullen, 1999; Smith, 1997; Snider & Fu, 1990; Stipek & Byler, 1997; Tomchin & Impara, 1992; Vartuli, 1999).

A study by Delaney (1997), found that the four preschool teachers' in an American study stated that relationships with other colleagues impacted on their beliefs and practice. Positive interactions with colleagues outside of the classroom in a similar context provided support and an opportunity for reflection on practice (Delaney, 1997). Barblett (2003) highlighted the impact of accountability and outcomes based education on teaching practice. This Western Australian study highlighted the fact that curriculum in a one-size fits all approach does not suit all teachers in a range of diverse contexts (Barblett, 2003). Cassidy and Lawrence (2000) also found that personal experience and teaching experiences had greater influence on teachers' beliefs than role models and mentors, further education, in-service training and professional reading

Research also suggested that extrinsic factors may force a mismatch between beliefs and practice. Early childhood teachers do not always feel free to implement a program, which is consistent with their beliefs (Hitz & Wright, 1988; Stipek & Byler, 1997). For example, Bryant et al. (1991) found low levels of developmentally appropriate practice in early childhood classrooms. Bryant et al. (1991) asserted that this was due to limitations in teachers' knowledge, and there was a gap between teachers' purported beliefs and practice.

Many of the beliefs that are held by early childhood teachers about children and their images of childhood affect teachers' understanding and the implementation of programs (Woodrow, 1999). Stott and Bowman (1996) challenged early childhood teachers to take a more critical view of their world, to be reflective and rely on self-knowledge. Similarly, Rogers and Swadener (1999) urged teachers to be reflective and re-vision the field of early childhood to meet the challenges of the new millennium.

The literature provides a number of views about teachers' beliefs and practice and the relationship that exists between the two. Brantlinger (1996) suggested that:

- Teachers' beliefs about education impact on teaching in general as well as their understanding of how children learn;

- Teachers' perceptions of themselves as teachers influence learning outcomes; and,
- Teachers' beliefs about events in the classroom are influenced by their actions.

Many of the previous studies that were conducted in early childhood settings were not Australian and did not specifically focus on teachers of four to six year olds in Catholic schools. Therefore, in order to understand early childhood teachers' beliefs and practices in Early Childhood and Religious Education, the theories of learning and teaching within this specific context are the focus of the research.

2.3 Early childhood teacher's beliefs about learning

> When we teachers look out over our classrooms what do we see? … in the human centred act of teaching, all attempts to create definitive categories lower our sights, misdirect our vision, and mislead our intentions (Ayers, 2001, pp. 28-29)

Teacher's beliefs about children's learning in the early childhood are grounded in personal and professional knowledge, experience and view of the world (QSCO, 1998). Teachers live in a constantly changing world and they are experiencing changes in attitudes towards children and learning in a range of contexts (Arthur, et al., 2005; Dockett & Perry, 1996). Historically, child development theories have been an important component of Early Childhood teacher preparation courses (Stott & Bowman, 1996). Recently, post-modernist and socio-cultural theories have challenged the developmental theories as the sole or the only basis for learning (Arthur et al., 2005; Ryan & Grieshaber, 2004). The various developmental theories described differing views of child development and learning. Each has its own language and metaphors that assist in understanding differences and commonalities. In early childhood, there are a number of perspectives or theories; two are examined in this review and these reflect the Behaviourist or Traditional and Social-Constructivist viewpoints (Stipek & Byler, 2004).

Behaviourist or Traditional theories of learning believe that children are products of their own experience. Locke (1693/1975) asserted that young children were blank slates (tabula rasa), waiting to be written on by experiences in society. All learning

and development can be shaped by environmental factors and the role of the adult is significant in this view of the world. Following in this tradition, Watson (1929), and Skinner (1948), proved that through environmental conditioning a child's behaviour could be changed in small, incremental steps. Rewards and punishments were used to shape this behaviour. Hill, Stremmel and Fu (2005) suggested that this view of children and childhood is negative and sees children as "small, dependent and needy" (p. 87).

In summary, the behaviourist viewpoint proposes that:

- Children become competent learners as they are rewarded,
- Children learn primarily through information transmitted by teachers,
- Rewards and punishments are incentives for learning,
- Children learn best through rote learning, and
- The environment has limited impact on children's learning.

By contrast, with the behaviourist approach, social-constructivist theories are based on the work of Jean Piaget and Lev Vygotsky. Constructivism assumes that children construct their knowledge through the building of concepts. According to Piaget (1971), the process of learning is two-fold. Firstly, it involves children assimilating new ideas into what they already know. Secondly, they adjust previous thinking and knowledge in order to accommodate new ideas and information (Piaget, 1971). By contrast, social-constructivist theories acknowledge the importance of others in learning whilst engaged in active involvement in the learning process. Vygotsky (1962) suggested that children construct knowledge through action. For example, when children use concrete materials in problem solving tasks they are able to acquire new concepts (Vygotsky, 1962, 1976). Vygotsky emphasised the role of language in acquiring new concepts and as a tool for knowledge construction (Vygotsky, 1976). Learning, according to Vygotsky, occurs within a social context and the term 'Social Constructivism' can be attributed to Vygotsky (Berk, 1994; Berk & Winsler, 1995; Vygotsky, 1976).

The view of children as capable and competent, and agents of their own development are consistent with this construction of children and childhood (Hill, Stremmel & Fu, 2005). Within this view, teachers, parents and other children play a critical role in the learning process. They 'scaffold' learning by asking questions, by guiding and challenging thinking. Scaffolding is a process of supporting, and as

competence increases the level of scaffolding is reduced or removed (Berk & Winsler, 1995; Vygotsky, 1976). It is through the process of scaffolding, that social interaction and verbalization are facilitated and children are able to construct knowledge of the world together (Berk & Winsler, 1995; Dockett & Fleer, 1999; Kontos, 1999; Vygotsky, 1976). Play provides a worthwhile learning context for the construction of meaning.

Play has been advanced in early childhood education as a means for children to be actively engaged in learning (e.g., File, 1994; Honig, 2000; Kemple, 1996; Kontos, 1999; Kwon & Yawkey, 2000; Rosberg, 1994). Play is considered an important requirement for learning and development (Reynolds & Jones, 1997). According to Piaget (1962), play provides an opportunity for children to practice skills and to make sense of the world through active construction. Play reflects what a child knows and what development has already occurred (Dockett & Perry, 1996; File, 1994; Hedges, 2000; Reynolds & Jones, 1997). Play is interpreted in a range of ways, including different genre and various forms of play have been described in the literature. According to Vygotskian theory, play has the potential to lead to development (Hedges, 2000; Levin, 2000; Piscitelli, 1992). It assists in creating the "Zone of Proximal Development" (ZPD) (Berk & Winsler, 1995; Vygotsky, 1978), which is commonly described as:

> The distance between the actual development level as determined by the independent problem solving under adult guidance or in collaboration with more capable peers (Vygotsky, 1978, p. 86).

Teachers' beliefs about play influence how it is used as a means of supporting children's learning (Dockett & Fleer, 1999). In conclusion, play is valued in the social-constructivist view of the world. It is this viewpoint that underpins many of the current documents and policies for early childhood educators. For example, both the Queensland Preschool Curriculum Guidelines (1998) and the Brisbane Catholic Education Early Years Policy (2002) are grounded in social-constructivist theories of learning.

In summary, the social constructivist viewpoint suggests that:

- Learning involves the learner being actively involved in the construction of knowledge,
- Learning is an internal and personal process,

- Learning occurs when a child responds to a stimulus in their environment,
- Learning is influenced by thinking, language and interactions ,
- Children learn best when they are engaged in self-selected experiences,
- Learning occurs within social and cultural contexts, and
- Play is a means for children to make sense of their world.

2.3.1 Research about early childhood teachers' beliefs about learning

> Young children are potentially competent, engaged, thinking, creative and communicative. They are active learners who seek to make sense of the world, and explore patterns and relationships as they investigate and play with materials, ideas and people (QSCC, 1998, p. 5.)

The above quote reflects the contemporary perspectives of early childhood educators with regard to view on children's learning. Research in the area of teachers' beliefs in early childhood and children's learning has been limited. There have been several studies that looked at individual domains and areas of development. In this research, two poles of the continuum of beliefs have been used to measure teachers' beliefs. Benjamin (2003) revised and validated and instrument previously developed by Wooley and Wooley (1999). These studies measured teacher beliefs with regard to social-constructivist and behaviourist theories of learning. It was acknowledged by Benjamin (2003) that recent trends in education meant a more social-constructivist approach was evident. However, the research identified that this provoked a number of dilemmas for teachers (Benjamin, 2003). The revision and validation of the instrument by Benjamin's (2003) was conducted with pre-service teachers. Benjamin's instrument contains some useful elements but was not appropriate for this research.

Similarly, Berthelsen, Brownlee and Boulton-Lewis (2002), in the study of child care workers, found that beliefs about learning were closely related to experience, and that examining teachers' beliefs provides an opportunity to understand their practice. Berthelsen et al. (2002) also examined beliefs about children's learning using the

poles of behaviourist and social-constructivist. Sometimes in the literature the term 'behaviourist' is used interchangeably with 'traditional' (e.g., Smith, 1992).

2.4 Early childhood teacher's beliefs about teaching

Teaching is a process that requires teachers to draw on planning and decision-making, which are based on theories and beliefs (Berthelsen, et al., 2002; Einarsdottir, 2001; Smith & Shepard, 1988b; Stipek & Byler, 1997). Teaching is a unique, holistic and integrated phenomenon (Pajares, 1992). Beliefs about teaching are grounded in teachers' knowledge and experience (Stipek & Byler, 1997). The literature identified a number of approaches to teaching. In the early childhood area, two contrasting approaches were identified, namely teacher-directed and child-centred (e.g., Stipek & Byler, 2004). Each of these is situated at either end of a continuum with all other approaches occurring between. Stipek (1991) confirmed these poles on the continuum in the American study of early childhood teachers.

Developmentally Appropriate Practice (DAP) according to Bredekamp and Copple (1997) relies on research of child development, knowledge of individual children's strengths and needs and knowledge of children's social and cultural contexts. Maxwell, McWilliam, Hemmeter, Ault and Schuster (2001), in their study of American Kindergarten to year three teachers found that teacher education, year level taught, and level developmentally appropriate beliefs, accounted for variance in classroom practice.

In the 1990s, the literature was engaged in a debate about developmentally appropriate and inappropriate practices. 'Developmentally Inappropriate Practices' were linked with the teacher-directed approach. This approach focused on the acquisition of basic skills, such as, reading and writing (Burts et al., 1993; Spodek & Saracho, 1991). These are taught via repetition and reinforcement (Stipek & Byler, 1997). Marcon (1999) defined the teacher-directed approach as having the following features. Lessons are:

- highly prescriptive ;
- follow a prepared script to ensure consistency of teaching and learning;
- sequenced and mapped out in advance; and,

- Focus on academic skills associated with mathematics, reading and writing.

An emphasis on whole-group, direct instruction (Burts et al., 1993; Spodek & Saracho, 1991), and the use of highly structured abstract materials such as worksheets are also characteristics of a teacher-directed approach (Burts, Hart, Charlesworth, Fleege, Mosley, & Thommason, 1992; Graue, 1993). This approach is derived from behaviourist theories of learning. It is an approach that is product-oriented, requires conformity and is subject or content based (Arthur, Beecher, Dockett, Farmer, & Death, 1996; Tinworth, 1997). A child-centred approach is diametrically opposed to the teacher-directed approach to teaching early childhood children.

In summary, a teacher -directed approach emphasises:

- the role of teachers as enforcers of rules;
- the management of behaviours rather than learning;
- the planning for teaching and learning sequences;
- the expectation that children work individually with limited interactions with other children or adults;
- the children are assessed using pencil and paper tests based on content covered;
- the emphasis of the approach is on the development of skills necessary for school;
- the content of the program is divided into separate curriculum areas;
- the program is predetermined at the beginning of the year/term and does not change;
- the timetable includes time each day/week for children for teaching skills necessary for school; and
- the programme's activities and themes were usually determined by the teacher.

By contrast, the child-centred approach is grounded in Constructivist theories of learning and development (Berk & Winsler, 1995; Stipek & Byler, 1997). The individual child is the focus of this approach and there is freedom to make choices and to control learning through play, the most natural medium for young children

(Arthur et al., 1996; McNaughton & Williams, 1998; Tinworth, 1997). Early childhood educators supporting a child-initiated approach generally express a commitment to individually and developmentally appropriate curriculum (Charlesworth et al., 1993; Stipek, 1991;Stipek & Byler, 1997; Stipek & Byler, 2004). This position recognised the child as a unique being, who exists in a number of contexts (Bredekamp & Copple, 1997).

Research affirming this viewpoint, indicated that teaching within this approach facilitates children's learning through multiple interactions between the child, the environment and the adults (Berk & Winsler, 1995; Gandini, 1997). Experience and an emphasis on the process are typical of this approach (Bredekamp & Copple, 1997; Ditman, 1970; New 1997; Tinworth, 1997). Children are provided with opportunities to play, explore and experiment and integrate and make sense of life experiences.

In summary, child-centred teaching approach includes:

- the focus of teachers is on children's learning and development;
- the role of teachers' is to support, guide and scaffold children's interests and competencies;
- the curriculum planning process is responsive to children, flexible and negotiated with children and others in the environment;
- the emphasis of the program on children's social and affective domains of development is important, but the whole child's development and learning is also highly valued;
- the value of play is seen as a tool for teaching and learning; and
- the planning for teaching is based on observations and these are shared with children and families in order to gain a better understanding of children and their contexts of development.

In summary, there are two contrasting viewpoints. Teaching is a highly personal activity and is influenced by teachers' perceptions of their own role, their previous experiences and view of the world. The two approaches described in this section, highlight the views from both ends of the continuum that exists in the literature (Buchanan et al., 1998). Ryan and Ochsner (1999) challenge teachers to explore more than two dominant stereotypes, that is, the teacher-directed (developmentally

inappropriate practice) and child-initiated (developmentally appropriate practice). Reality for many teachers in the twenty-first century is to promote equity and diversity within varied social and cultural contexts. Teachers are encouraged to teach using a variety of methods, each catering for varying learning styles (Department of Education, 1994; Ryan & Ochsner, 1999). For example, it is appropriate for teachers in an early childhood setting to use teacher-directed approaches when demonstrating the safe use of equipment or to teach specific skills. At other times, it is more appropriate for children to learn by discovery and exploration with limited teacher intervention.

2.4.1 Research about early childhood teachers beliefs about teaching

Research about teachers' beliefs about teaching has been more common than teachers' beliefs about children's learning. This research brings both learning and teaching together as they are perceived as linked processes and cannot be easily separated. In early childhood education research, many American studies have focused on the notion of teaching that represents Developmentally Appropriate Practice (DAP). For example, Smith (1992) developed an instrument to measure primary teachers' beliefs about Developmentally Appropriate Practice. A 42 item instrument was administered to 144 American elementary school teachers. Smith (1992) urged other researchers to develop this instrument further as more research was required in the area to validate teachers' beliefs about Developmentally Appropriate Practice and Developmentally Inappropriate Practices or Traditional approaches to teaching. Cory (1995) found there was a relationship between teachers' beliefs and practice, inconsistent with Developmentally Appropriate Practice guidelines. Cory (1995) reported that a correlation between year level and practice was evident in the results. Cherek (1997) built on the work of Cory (1995) and Smith (1992) but examined the relationships between Developmentally Appropriate Practice and the methods used to teach Religious Education in a Year Two classroom. In all three studies, Developmentally Appropriate Practice and Developmentally Inappropriate Practice or Traditional practices were the areas of focus.

A range of instruments have been presented in the literature for measuring early childhood teachers' beliefs. An example of this is the Vartuli (1999) research, which used three instruments to study early childhood teacher beliefs. These instruments included the Early Childhood Survey of Beliefs and Practices (Marcon, 1999);

Teacher Beliefs Scale (Charlesworth et al., 1990; Charlesworth et al., 1993) and the Classroom Practices Inventory (Hyson, Hirsch-Pasek & Rescorla, 1990). This study reported that at each year level beliefs tended to be more developmentally appropriate than practices (Vartuli, 1999). Buchanan, Burts, Bidner, White and Charlesworth (1998) adapted Charlesworth et al. (1990; 1993) Teacher Beliefs Survey for early childhood teachers. Their study reported that appropriate and inappropriate practices can be predicted. The elements of classroom type and personal characteristics were seen as indicators of their developmentally appropriate practice.

Building on prior research in early childhood education, has been the issue of quality. In response to the issue of quality, Harms, Cryer and Clifford (1980) developed the Early Childhood Environment Rating Scale (ECERS). This instrument measured quality of early childhood environments, an element of the teachers' role. This instrument was revised by the authors in 2001. Subsequently, Sakai, Whitebook, Wishard and Howes (2003), evaluated the Early Childhood Environment Rating Scale (ECERS). According to Sakai et al. (2003), the ECERS was the most used instrument to assess child care and centre-based education programs. The instrument focuses on environment, interactions and activities. Perlman, Zellman and Le (2004) tested the psychometric properties of the ECERS-R and found that it measures an overall level of quality rather than seven elements proposed by Harms and Clifford (1980).

Stipek and Byler (2004) developed an instrument to measure early childhood teachers' classroom practice through an observation tool. The tool was designed for use in classrooms for children aged between four and seven years of age. Two scales were included in the instrument, one assessed the level of constructivist or child centred teachers and the second assessed the level of teacher-centred, didactic approaches to teaching (Stipek & Byler, 2004).

Internationally, early childhood teachers' beliefs have been the subject of other studies. In Greece, Doliopoulou (1996) studied Greek Kindergarten teachers' beliefs and practice. This study used the instrument developed earlier by Charlesworth et al. (1993) to determine the level of Developmental Appropriate Practices of 67 Greek Kindergarten teachers. A comparison between American and Greek early childhood practices, with similarities and differences in beliefs was the product of this research. This study highlighted the universality of early childhood practice. Similarly, Lin,

Gorrell and Silvern (2001) studied Taiwanese early childhood pre-service teachers' beliefs about professional issues. Beliefs examined in this research included teacher's roles, images of classroom practice, ways children learn, and reasons for schooling.

2.4.2 Summary of relationship between learning and teaching

The research presented in this review highlights the relationship that exists between learning and teaching. Teaching is more than just transmission of information it requires learning and relearning (Gandini & Goldhaber, 2001). Contemporary reflections on the educational experiment in the Italian town of Reggio Emilia, highlighted the view that teachers are co-learners in a:

> System of relationships that foster the implementation of a social-constructivist, inquiry based approach to teaching that takes into account the cultural transmission of learning and the transformation of self as teachers and learners" (Hill, Stremmel & Fu, 2005, p. 17).

Teachers within this perspective have an active role in negotiating curriculum based on their knowledge and experience with children and their interactions within their social and cultural contexts (Gandini & Goldhaber, 2001).

An underpinning value of the Reggio Emilia approach is the role of the environment and this is widely supported in the literature. Specifically, the environment of the classroom is proposed by the literature as third teacher (Malaguzzi, 1993). It is the third teacher which reinforces the nexus between teaching and learning. Children and teachers are viewed as co-teachers and co-learners and the physical, social and emotional climates of the environment are critical. For example, Hill, Stremmel and Fu (2005), identified five key factors that teachers may value as being essential in the development of the environment as the third teacher.

- A classroom that is organised and has aesthetic qualities, places for children's own identity to be included.
- A range of materials and that are open ended and allow children to explore their properties in creative and innovative ways.
- An emphasis on children as individuals and as members of a group in the development of the social and emotional climate.

- A space in the room for working with others and alone, that fosters collaboration and is flexible according to children's current explorations.
- A place for children to engage in opportunities to pretend, imagine and reconstruct their understanding of life, relationships and culture.

2.5 Beliefs about learning and teaching Religious Education

Teachers in Catholic schools consider the social, emotional, physical, cognitive and spiritual dimensions of children when planning the curriculum (DETYA, 1999). In 2005, less than one third of children attending Catholic schools are regular church attendees (Hughes, 2004). For many families and children, the Catholic school is the first Church related experience. With this in mind, there are many challenges for teachers of Religious Education in Catholic schools. This section of the review examines the literature and highlights the features of Religious Education in Australia today and draws on the past to define the content and context of this research. This section also identifies the beliefs of teachers with regard to learning and teaching in the curriculum area of Religious Education and highlights the various syllabus documents and guidelines for four Dioceses in Australia. Teachers' beliefs about Religious Education were not explicitly discussed in the literature. The assumption made in this thesis, was that like other curriculum areas, teachers beliefs are grounded in knowledge and experiences, both personal and professional.

2.5.1 What is Religious Education?

Religious Education is a term commonly used in Australian literature to describe the teaching of religion in church based schools. It may take various forms, some of which are discussed below (Lovat, 2002; Ryan, 1997; Ryan & Malone, 1997; Ryan, Brennan & Wilmett, 1996). Religious Education is a key component of Catholic schooling (Malone & Ryan, 1994). The teaching of Religious Education and the ethos of Catholic schools are features that distinguish them from state or public schools and other independent schools.

> The Catholic school is an expression of the life of the Church in a particular place and time. Its' purpose and task arise from the sense of purpose of the whole church (Sacred Congregation for Catholic Education, 1977).

In Catholic schools, Religious Education in Australia is a curriculum area or Key Learning Area of study. In each state and diocese, the Religious Education curriculum and approaches differ. This section of the literature review defines Religious Education as a key learning area of study in Australian Catholic schools. Lovat (2002), one of Australia's most prolific writers about Religious Education as a field of study suggested that:

> Once it would have been taken for granted that any Religion's primary aim would be instilling or promoting a particular faith tradition, it is now quite respectable to speak of the value of the subject apart from its enfaithing qualities (p. v).

Religious Education was used interchangeably with the term Religious Instruction in the literature. For example, the literature from the United States of America and the United Kingdom used these two terms frequently (e.g., Attfield, 1996; Hammond & Hay, 1990; Hill, 1988; Moran, 1991; Nye & May, 1997; Rudge, 1999a, b). For example, Religious Instruction was used to refer to parish based programs and sacramental programs. For the purpose of this thesis, the term Religious Education is used. This definition is based on the current views presented in the literature. Religious Education is viewed as a curriculum area that is taught in Catholic schools to a diverse range of children. The aims of the subject area are to promote autonomous learners, whilst making connections with life experiences and to build on children's knowledge and experiences. It needs to be relevant. Religious Education inherently invites children to be part of a wider institution but doing so with freedom of choice (Hill, 1988; McGrath, 1996; Rummery, 1975; Ryan, Brennan & Willmet, 1996, Sacred Congregation for Catholic Education, 1977, 1982, 1988, 1997). This has not always been the case for Religious Education in Catholic schools.

Religious Education in the Australian Catholic context has a unique history. There are 28 dioceses in Australia and each has a Catholic Education Office which administers curriculum and professional development for teachers in Catholic schools.

Throughout history, there have been many models of Religious Education discussed in the literature. Each model has an impact on the current knowledge and understanding of teachers about the teaching of Religious Education, whether it was from their own schooling experience or their work as a teacher in a Catholic school. For the purpose of this review of the literature, four models are presented. Four were selected from a wider range as they had the greatest impact on Religious Education

in the Australian context. These are: Catechetical/ Enfaithing, Praxis, Integrated, and Educational (Lovat, 2002).

The term “catechetical” is synonymous with the approach to teaching which means to echo or catechism is the book of questions and answers. These terms are derived from the Greek word *Katechein*, meaning a process of echoing or to resound (Ryan, 1997). These terms are used frequently in the Religious Education literature, and were described and utilised in both narrow and broad terms.

The narrowest use of the term implied a process whereby a catechist transmitted the knowledge through direct instruction of doctrine to the learner and it was rote learned. This teaching-learning approach was common to all curriculum areas including Religious Education. It was an early form of Religious Literacy. Students knew the terms and definitions and applied them to everyday life. By contrast, a broader understanding of this term includes the role of a more experienced community member providing support and guidance. In criticism of this view, Ryan Brennan and Willmett (1996) proposed that this viewpoint assumed readiness of the learner.

With regard to a catechetical or enfaithing approach to Religious Education, this was described by various authors in the literature. Arthur and Gaine (1996), suggested that catechesis was a process that involved the teaching of the faith. Specifically, it is learning about the traditions, beliefs and rituals associated with a particular religion. The catechetical or enfaithing approach was not monopolised by the Catholic Church. It is common to many world religions (Lovat, 2002). A broad aim of Catechesis, aims to nurture, train, and convert people to a specific religion (Lovat, 2002; Ryan, 1996). This model attempts to:

> convince, convert and strengthen commitment to a particular faith tradition … acquisition of specific knowledge, skills and attitudes related to affirmation to the tradition in question… subject matter will refer exclusively to one tradition (Lovat, 2002, p. 1).

According to Lovat’s (2002) classification, the enfaithing models included the ‘prescriptive’ or catechetical model; the ‘life-centred’ model influenced by developmental theorists, and the praxis model which was developed in reaction to the ‘life-centred’ model. A wider definition of this approach was attributed to the work of Arthur and Gaine (1996). They proposed that a catechetical approach was broader and included the development of the whole person and was life long. They

emphasised that is was “not simply the bare transmission of the content of the Christian faith to children” (Arthur & Gaine, 1996, p. 337).

In the Australian context, the history of Christian Religious Education goes back to the early days of European settlement. A catechetical approach was used to ensure that the faith and traditions of the Church were transmitted to mainly Irish Catholic children in the face of strong opposition from the British Government. This approach continued until after the Second Vatican Council in the 1960s. The *Declaration on Religious Freedom*, supported the notion that individuals had rights and freedom of choice. Specifically, the declaration stated:

> The human person has a right to religious freedom… all… are to be immune from coercion… no one is to be forced to act in a manner contrary to his own beliefs (Abbott, 1967; pp. 678-9).

The Catechetical or enfaithing approach evolved with four key phases. These include: liturgical, kerygmatic, anthropological and political (Arthur & Gaine, 1996). For the purpose of this review, the kerymatic and anthropological phases are discussed as they had the greatest impact on Religious Education in the Australian context.

Around the 1960s, the kerygmatic approach relied on the proclamation of scripture as the salvation message (Arthur & Gaine, 1996; Ryan, 1997). Kerygma was a term that was derived from the Greek word, *Keryx* meaning to herald or to give the message. According to Ryan (1997), the approach was to proclaim the good news of Jesus Christ’s life, death and resurrection. The origins of this approach are found in the German works of Herbart (1900s) and Jungmann (1962). The Kerygmatic movement had four main features. (1) It was grounded in the Bible and church traditions as a basis for all religious education decisions; (2) the primary task of Religious Education was to share the messages ordained by God; (3) the teacher was a minister of the message; and, (4) the full teachings of the message provided access to the learner to their Christian inheritance (Burgess, 1975, p. 26). The aim of the approach was to share scripture and provide opportunities for children to respond. This approach was highly criticised due to teachers’ lack of theological and scriptural content knowledge (Ryan, 1997).

Also in the 1960s, the work of Goldman (1965), became prominent and was concerned with context of the student (Arthur & Gaine, 1996). The emphasis was on teachers and students collaboratively discovering the messages of the Gospel. This

approach was influenced by the works of educational psychologists such as Piaget and Kohlberg (Ryan, 1997).

In the 1990s, the Praxis model of Religious Education emerged, based on the work of Groome (1991). This model encouraged teachers and students to share faith in a critical and active way (Ryan, 1997). It was argued by Groome (1991), that this model was a more authentic form of catechesis. It may have involved social action and living a Christian way of life. Lovat (2002) was critical of Groome's work suggesting that his approach although aligned with contemporary educational theories including critical theories and action research models. It was in the spirit of the post Vatican Council 'freedoms' and was often adopted as the entire RE curriculum to the neglect of other aspects (Lovat, 2002). For example, this five step approach does not recognise the diversity of schools and family backgrounds of students and assumes a common starting place (Ryan, Brennan & Willmett, 1996). The key assumptions of this approach included:

1. That God is active in people's lives
2. That God is revealed in the story and vision of the Christian faith community, which is handed down to other generations
3. That the community's and individual's story are sources of faith (Groome, 1991).

There was evidence of the Catechetical/ Enfaithing models in some Australian Diocesan Religious Education guidelines. For example, the RE guidelines produced by the Dioceses of Parramatta, Sandhurst, Sale, Hobart and Canberra-Goulburn were grounded in the Praxis approach developed by Groome (1991).

Change in approaches to Religious Education in Australia began in the early 1980s. Rossiter (1982) attempted to challenge the emphasis of catechesis in Religious Education. This separation changed the nature of Religious Education in the Australian context and saw the beginnings of an academically focused curriculum area, still with an emphasis on belief. Inter-faith models concerned with comparative religions were developed from the work of Smart in the 1970s and 1980s. This model emphasised a set of skills that could be used to understand any religion (Lovat, 2002). It was viewed as a subject area that could be assessed in similar ways to other curriculum areas (Lovat, 2002). Moore and Habel (1982) commented on Smart's work and suggested that it:

> … provided the teacher with a methodology which enables assessment of student achievements in the study of religion which does not require intrusion into the area of the student's faith or lack of it. On Smart's approach, it is possible to assess students' skills rather than their level of religious commitment (p.15).

The integrated models concerned with an educational focus were developed and have continued to evolve (Lovat, 2002). In the 1990s, the educational approach to Religious Education based on the work of Moran (1991), was developed further. In the Brisbane Archdiocese, the Diocesan office developed guidelines that were consistent with contemporary educational trends. Outcomes based education and Religious Literacy were two features of the curriculum documents and approaches. Religious Literacy, a term defined by Barry and Rush (1998), as:

> That ability which a student progressively acquires, to interrelate and synthesise, through a range of genre and within cultural and social contexts, knowledge, process and communication, attitudes and values, in the light of Catholic tradition, so as to make meaning and facilitate effective and critical participation in the life of his/her faith community and wider society (p.1).

In summary, each model or approach presented in this section had inherent assumptions about learners and teachers. These are delineated further in the following sections outlining beliefs about learning and teaching in Religious Education. Evidence in this section supported the notion that trends and developments in Religious Education curriculum, views of learners and learning and teaching approaches have evolved consistently with trends in education (Lovat, 2002).

2.5.2 Beliefs about children's learning in Religious Education

Research investigating teachers' beliefs about young children's learning in the curriculum area of Religious Education has been limited to date. Educational and developmental theorists have influenced teachers' understandings about children's learning. Since the 1960s, Religious Education has been influenced by a number of these theorists. Some of these include Piaget, Kohlberg and Fowler (Wellbourne, 2001). These and others are presented in this section.

It was suggested that early childhood aged children were not capable of religious thoughts and understanding (Fowler, 1981; Kohlberg 1981; Piaget, 1965). Fowler

draws on Piaget's work. His stage of faith development theory began with children from two to six years. It was claimed that children were egocentric and not capable of logical thought (Fowler, 1981). Kohlberg (1981) was primarily concerned with moral development. It was argued that children from about eight years could show restraint, and knew the difference between right and wrong. Before this age they were considered to be incapable of exhibiting such capacities. It was therefore assumed that young children were incapable of understanding religious concepts and content. Similarly, Goldman (1965) asserted that early childhood age children were 'pre-religious' and not capable of religious learning.

Influential in the development of approaches to teaching Religious Education in the 1960s was the work of Goldman (1964, 1965). Goldman's anthropological approach to Religious Education, presented a contrasting view to the earlier rote learning dogma and doctrine promoted by the catechetical model. Central to Goldman's work was the notion that Religious Education was a more personal and individual endeavour (Goldman, 1965). "Religion is eminently a personal experience and a personal challenge" was a key tenet of his work (Goldman, 1965, p. 65). Goldman's work mirrored the work of contemporaries such as Piaget. Piaget's work on cognitive development highlighted individual's construction of knowledge through action rather than by the transmission of knowledge.

Research into children's religious thinking was conducted by Goldman (1964). The study focused on religious thinking from childhood to adolescence. In this study, 200 children between six and fifteen years were shown pictures and told stories in methods similar to the work of Piaget. Findings of this work included the identification of 5 stages. The stages were:

- Pre-religious thought- children up to seven or eight years. Children's judgments are made from their own viewpoint.
- Sub-religious thought one- children seven to nine years. Operational thinking and children are less egocentric and able to relate facts.
- Sub-religious thought two- children nine to eleven years. Concrete operational thinking and children were able to interpret and understand religious concepts.
- Religious personal thought one- children from eleven to thirteen years.
- Religious personal thought two- children from thirteen years. In both these stages children were capable of religious thinking (Goldman, 1964).

Thirty years later and by contrast, the work of Berryman (1990, 1992, 1994), focused on children's learning about Religion in a play based environment. The thesis of this work relied on six tenets. First, children need to have opportunities to wonder and be curious about Religious Education concepts so that they can engage with them at a real level rather than reciting or repeating learned information. Second, children should be encouraged to work in a supportive and respectful environment. In this environment children learn through tangible experience the values of love, respect and being part of a community. Third, children need choices of activity in a predictable and safe environment. Fourth, religious language is learned in a safe environment where learning occurs through all the senses. Fifth, religious language used with children that is powerful and evocative. Sixth, role of the Eucharist is central to Religious Education and children's learning and experience (Berryman, 1990, 1992, 1994).

Children are capable of religious thought according to the work of Cavaletti (1992). Cavaletti observed and worked with children from 3 to 9 years for over fifty years (Cavaletti, 1999). Cavaletti's work suggested that when children are exposed to concepts and content, rituals and facts about God and the Catholic Church via a hands-on approach, they have an ability to experience the awe and wonder of God. Therefore, Cavaletti would argue that children are capable of religious understanding. Similarly, Moran (2001) stated that education is a life-long process and children's understanding of God, religion and religious concepts begins long before they enter a classroom.

Symbols, rituals and play provide opportunities for young children to construct and make sense of their world. Children are competent beings who come to classrooms with a wealth of experiences and personally and socially constructed ideas about the world (Erricker et al., 1997). Young children are primarily:

> Concerned with belonging and identity; violence and conflict; death, loss and family separation; God, heaven and hell; dens and special places; relationships with others; animals and the natural world (Erricker et al., 1997, p. 27).

With this in mind, Bounds (1997), remarked that new insights into Religious Education suggested that teaching and learning should consider the range of educational and other experiences of children.

It is also recognised in the literature that children come to educational settings with a range of experience with regard to religion and religious concepts (Malone & Ryan, 1994a; McClorry, 1987). It is commonly known that a majority of students have not been exposed to many aspects of Church and religion. Infrequent Church attendance has been one of the greatest influences on Religious Education in the past decade (Grajczonek, 2000; Lovat, 2001; Wellbourne, 2001). No longer can a teacher assume that children have prior knowledge of religion and being religious.

Teachers' beliefs about children's learning in Religious Education have not been specifically discussed in the literature. Nye and Hay (1997) suggested that Religious Education headed in the wrong direction with the work of Goldman. They stated that the error lay in the reliance on cognitive developmental theories of learning and ways of knowing (Nye & Hay, 1997). Learning in Religious Education has to be grounded in the life experience of the learner (Bounds,1997). Learning, according to Gardner (1991), is a change in the way in which an individual sees and understands their world. Children's learning about religion and spiritual aspects begins before birth and continues to develop throughout their lifespan.

In summary, the two perspectives presented above suggested that young children are capable of learning about Religious Education concepts and teachers' beliefs about children's learning in Religious Education, influences their classroom practices. Catholic early childhood teachers' beliefs about learning in Religious Education in the early years have not previously been the subject of research. Teachers' beliefs about learning in Religious Education appeared to be consistent with general theories of learning and development. That is, children learn in a variety of ways but two contrasting views exist. Children as 'empty vessels' and children as 'meaning makers' are two of the views in the literature. This research attempted to define what early childhood teachers' believed about learning in the curriculum area of Religious Education. Beliefs about children's learning impact on the teaching methods used by teachers.

2.5.3 Beliefs about teaching in Religious Education

Prior to the 1980s, research into the teaching of Religious Education was limited (Boys, 1984). Since this time, a number of writers have considered the teaching of Religious Education (e.g., Liddy & Wellbourne, 1999). Liddy and Wellbourne (1999) observed that there have many changes to teaching Religious Education in the twentieth century. Two distinct 'camps' are described in the literature. Firstly, were

those authors who subscribed to a Catechetical or Enfaithing approach (e.g., Lee, 1971, 1973, 1985; Groome, 1980, 1991; Harris, 1987, 1989; Boys, 1982, 1983, 1984, 1986, 1989). Secondly, were those writers who subscribed to an educational approach to Religious Education (e.g., Crawford & Rossiter, 1985; Lovat, 1995; Malone & Ryan, 1994b; Moran, 1989; Ryan & Malone, 1996; Ryan, 1997).

The emphasis of those supporting a Catechetical or Enfaithing approach was to share the good news of the gospel (Lovat, 2002). Groome (1991), Harris (1987, 1989) and Boys (1984), considered the faith community as a critical factor in the development of faith, and religious understandings. Each writer had various purposes and preferred teaching approaches. The fundamental differences between these writers and those in the subsequent section are their views related to the purpose, teaching strategies and contexts for teaching Religious Education.

In summary, a Catechetical or enfaithing approach to teaching Religious Education suggests that:

- Teachers' roles are an extension of the church's ministry;
- Religious Education teaches the how to behave to be a member of the tradition, through the doctrines and dogma of the church;
- Religious Education teaches the difference between right and wrong; and
- Catholic beliefs are instilled into children.

An Educational approach differs from an enfaithing approach. In this construct, the purpose of Religious Education with the Educational approach was to deepen student's knowledge, understanding and appreciation of religion (Liddy & Wellbourne, 1999). It was suggested that Religious Education be taught by using similar approaches and strategies to other curriculum areas (Malone & Ryan, 1994b). Moran (1991) suggested that there are two aspects to Religious Education. The first is to teach people to understand religion and the second is to teach people to be religious in particular way (Moran, 1991). Echoing Moran, Malone and Ryan (1994c), stated that two forms of Religious Education co-exist in Catholic schools. The first is the Religious Education program carried out in the classroom and the second is the Religious Education within the school community. Malone and Ryan (1994b) called for a balance between education and spiritual formation. An integrated approach to planning for Religious Education was recommended so that the learning was contextual and appropriate for learners (Malone & Ryan, 1994c).

Teaching Religious Education in the early childhood years should differ from the strategies used with students in older year levels (Barber, 1981). Children learn via their senses when they have direct contact and experience with materials and concepts (Berk & Winsler, 1995; Tobey, 1970). Stower and Ryan (1998) suggested that real-life experiences such as caring for animals, cleaning and cooking are essential elements in an early childhood setting. This belief about the importance of 'real-life activities for young children can be traced back to the work of Maria Montessori. Montessori (1918), an Italian Doctor, developed Practical Life experiences that cater for children's need to imitate life and to practice real life activities. Also, Pryor (1997) recommended that the most effective methods for learning and teaching for children for three to six years include:

- Hands-on, concrete experiences which allow for discovery and exploration;
- Opportunities for role-playing, modeling;
- Problem solving, recalling and retelling; and
- Discussion and presentation of ideas.

Teachers' beliefs about Religious Education have been explored in the literature in a limited way. For example, in one North American study, Cory (1995), focused on Protestant teachers' beliefs about developmentally appropriate practice, within the context of a Christian school. In a second study, Cherek (1997) studied the relationship between developmentally appropriate philosophy and religious education methodology. It was suggested by Cherek (1997) that teachers' implicit theories about children and learning influence their teaching. Both of these studies built on the work of Smith (1992).

In summary, the challenge for early childhood teachers remains to define Religious Education in the early years and in terms that best meet the needs of learners in early childhood. That is:

> The early childhood environment presumes an all-encompassing Catholic atmosphere that supports and nurtures the spiritual development of children. It has an open, welcoming atmosphere where children are guided in understanding the uniqueness and centrality of God in their lives (Archdiocese of Brisbane Guidelines for Preschool, 2002, p. 17).

All of the dioceses of Australia the Catholic Education Offices have developed Syllabi and/or guidelines for Religious Education. These include the aims, content and

processes for assessment according to the dioceses' priorities for Religious Education. These are presented in the following section.

2.5.4 Religious Education Curriculum Documents

Two aims of Religious Education for the twenty-first century that impacted on teaching and learning have been delineated (McGrath, 1997). These are (a) Religious Education should meet the diverse needs of students in a range of contexts, and (b) Religious Education should "produce informed, autonomous learners who can recognise the relevance of religion in their lives" (McGrath, 1997, p. 38). These aims were expressed in Religious Education curriculum documents that guide the practices of teachers across Australia. This section examines the Religious Education curriculum documents that guide the practice of the four teachers engaged in the second phase of the research. A selection of four dioceses (Brisbane, Cairns, Perth, and Melbourne) is presented in the following section. The materials presented were in use at the time data was collected for this research.

In 1997, the Brisbane Archdiocese introduced new Religious Education guidelines for years 1 to 12. Archbishop Bathersby (1994) proclaimed that:

> In the Baptismal ritual the Church commits itself to assist parents in the Religious Education of their children. The Archdiocese has undertaken to 'promote faith learning that is life long and life giving' and to 'nourish and co-operatively support' through education the faith life of families" (p.1).

In order to meet the needs of the growing Preschool sector in Catholic schools sample Religious Education Units (1988) were developed (Grajczonek, 2000). These were developed for all years including preschool. The draft units for Preschools included integrated units with contemporary stories, songs and activities that linked to themes. Links between these units and the framework of Foundation Learning Areas, provide an opportunity for Religious Education to be informally included in the early childhood setting. The Archdiocese of Brisbane Guidelines for Preschool (2002), recommended that teachers create an environment that is "responsive to the spiritual needs and unique circumstances of individual children" (p. 17). Varengo (1993) suggested that Religious Education should challenge learners beyond an intellectual approach. Religious Education should engage the learner in a holistic manner (Varengo, 1993). These units are not for mandatory use in Preschools in the Brisbane Archdiocese. The sample units are suggestions to be adapted to individual classroom contexts. The Brisbane Sample Units for Preschool contain clear

statements outlining assumptions about Religious Education, learning and learners in Religious Education. For example, in the Celebrations unit the purpose is:

> To understand that the Catholic Church celebrates and remembers the birth and death of Jesus through the celebration of prayer (Brisbane Catholic Education Office, 2000, p.1).

The units were described as being founded on the following principles of Religious Education. Firstly, Religious Education is portrayed as an educational activity. Secondly, that the material is presented within the integrity and richness of the Catholic tradition, and thirdly, a range of learning processes and resources are used to enact the unit are suggested. A key issue identified in the assumptions about learner and learning in preschool Religious Education, included:

> Children's eagerness to celebrate birthdays and special days, focus on themselves as individuals, imagination and natural curiosity and readiness to learn through experiential, concrete and sensory activities (Brisbane Catholic Education Office, 2000, p.1).

Within the Brisbane Archdiocese, for preschool there was no mandated reporting of outcomes in any curriculum area for parents, this is the case for Religious Education. This was not the case for Religious Education for other year levels.

At the time of the study, the Cairns diocese had adopted the Perth Religious Education guidelines. This occurred as a result of a decision made by senior members of the Cairns Catholic Education Office who had previously worked in the Perth Diocese. On arrival in Cairns, some direction for Religious Education curriculum was required and hence the Perth Religious Education Guidelines were adopted. In both the Cairns and Perth Diocese, level one document refers to the preschool and pre-primary years respectively. These guidelines developed in 1998 include a 3 step teaching process. This process includes: (1) Wondering about God through life experience (2) Introductory experiences of Catholic Life, and (3) Responding. The unit framework clearly outlines 'wonder' questions which teachers use to begin discussion and exploration of the topics. For example, in the "Our Church Community" unit the first wonder questions include:

> Who belongs to my family? How does my family care for me? Who lives near me? What can I see in my neighbourhood?

As these questions are explored, teachers and students draw on children's life experiences as they walk together to build a shared understanding or what it means to belong to a Christian community. The resource materials for teachers contain background information on the topics being covered and where this fits within Church teaching and providing examples for responses. Assessment is viewed as an integral part of this process as teachers plan according to learning area outcomes (Perth Diocese, 1998). The Cairns Diocese issued a Memorandum to teachers in 1999 about the implementation of the Perth Diocese and the contexts for implementation. Some key issues in this document that pertain to Preschools in the Cairns Diocese included:

- Preschool in Queensland is part-time and non compulsory and hence not all units will be covered during the Preschool year.
- The Guidelines are a resource and should be implemented by teachers at their discretion.
- Preschool learners need to active, engaged in play and meet the needs of the learners.
- Teaching of Religious Education should include a range of strategies and be integrated with Foundation Learning Areas from the Queensland Preschool Guidelines as appropriate (Diocese of Cairns, Catholic Education Office, 2000).

By contrast, the Perth diocese Pre-primary children attend full time, fives days a week. The expectation in Perth is that all twelve units in the Religious Education units for Level one are covered each year and children's learning is assessed according to learning outcomes for each unit.

In the Melbourne archdiocese, at the time of data collection *To Know Worship and Love*, was the text books used for Religious Education from Prep/ Kindergarten to Year 12. Level 1 is applicable to 4 to 6 year old children. The document's development was grounded in key Church Documents. The preface stated that the title was derived from an extract of the following Declaration on Christian Education of the Second Vatican Council:

> It is therefore above all in the Christian family, inspired by the grace and under the responsibility of the Sacrament of Matrimony, that children should be taught how to know and worship God and to love their neighbour, in

> accordance with the faith they have received in earliest infancy (Gravissimum Educationis, no. 3).

The textbook style Religious Education program, endorsed by the Former Archbishop of Melbourne, George Pell commented that:

> I decided that the time had come for a more focused approach to religious education by way of a text-based curriculum. This change is made in continuity with all the good work accomplished in the past. … after much consultation, the text-based curriculum builds on current best practice in our schools. It maintains a "call to faith' model of catechesis that my predecessors have consistently required (Diocese of Melbourne Catholic Education Office, 2000, p. 5).

The Melbourne guidelines emphasised knowledge, in particular the content of the Catholic teachings on faith and morals. The document highlighted the need for the Religious Education programs in the early years to build on children's experiences in order to:

> Develop a resilient religious education related to the lived experience of children… Amidst the challenges, problems and spiritual emptiness of secularised society, we can help them respond freely to God. We offer them the Good News: that God loves us, that Jesus Christ died and rose from the dead to save us, that in the Catholic Church we are led in service and worship by the Pope and Bishops, that our Lord calls us to repent and believe, to choose faith not doubt, love not hate, good not evil and eternal life in heaven not hell. These Catholic Foundations included in the texts call us to Christian duties and responsibilities (Diocese of Melbourne Catholic Education Office, 2000, p. 1).

The Archdiocese of Melbourne's Religious Education program at the time of the data collection was based on the "Good Shepherd Experience". It was loosely based on the work of Cavaletti (1992). The principles of the program included:

- God and child have a relationship that catechesis seeks to serve with reverence and respect.
- The teacher or catechist is a servant of a message that is not her/his own and together with the child must humbly listen to God's word.

- The teacher or catechist must observe the child carefully, as the inner dynamism of the child's needs direct the catechesis.
- The child is capable of perceiving the greatest realities of faith and must never be talked down to.
- The child must be given the opportunity to discover and appropriate the truth for her/him self.
- Prayer, contemplation and silence are natural components of a child's religious life and must be honoured (Archdiocese of Melbourne, 2000, p.7).

Melbourne Catholic Education advocated a clear statement about the appropriate methods for teaching within the Good Shepherd Experience programme. This approach goes a step further than the approaches taken by the Brisbane, Cairns and Perth Diocese. Melbourne has included the element of 'faith' with life experience as a starting place for children. The Good Shepherd Program draws faith as a starting point with scripture, liturgy and doctrine as the proclaimed message and exploring these and making connections to everyday life (Melbourne Archdiocese, 2000, p. 7). The document focused on catechesis and states that "learning and teaching process is a vehicle for catechesis" (Melbourne Archdiocese, 2000, p. 7). Catechesis was defined by Cavaletti (1992) as "not based on doctrine or experience but on Kerygma (on the events that are Good News for us now). This differentiates the Catechesis of the Good Shepherd from most other forms of Religious Education but also corresponds to the basic mission of the church, that is to evangelise" (p. 3).

Assessment and reporting students' progress was an important element of the Melbourne Archdiocese Religious Education program. The documents also promoted the need for continued professional learning for Religious Education teachers in Catholic schools as critical.

The four dioceses presented, represent a range of approaches to Religious Education. The years 1 to 10 guidelines in the Brisbane diocese are based on an educational approach with outcomes. These are not extended to the preschool units which are more open-ended and leave content and curriculum inclusion up to the individual teachers' discretion. The Cairns, Perth and Melbourne diocese all contain clear guidelines for teachers about the content and expected outcomes for learners. The greatest difference between the Cairns/Perth and Melbourne diocese is the use of a 'text book'. *To Know, Worship and Love,* the text book from the Archdiocese of

Melbourne, contains prescriptive content for teachers to follow in a pre-determined sequence.

2.5.5 What should Religious Education look like in Early Childhood classrooms?

The aims of Religious Education according to Brooke (2000), should allow each individual to develop to their potential. Similarly, Montanaro (1991) stated that the aim should be to "help humans to know who they are and what they must do in order to grow and achieve self realization, improving their own lives and their surroundings" (p. x). If the aims of Religious Education for the twenty-first century include making Religious Education contextually appropriate, meeting the diverse needs of children and assisting children to be independent and well-informed, there are some major implications for the types of learning experiences in the foundation years of schooling. These issues of curriculum content, teaching methods, and experiences of children, assumptions about learners, assessment and reporting will be examined in this section.

Firstly, curriculum content was an issue raised in the literature. Grajczonek (2000) suggested that concepts and content for the early years' classrooms need to be clearly defined within syllabus documents and guidelines. Most dioceses in Australia have adopted a curriculum framework which outlines the content and concepts to be covered with four to six year old children. At the stage of data collection, the Brisbane Archdiocese remained the only diocese without a permanent curriculum document that specifically addresses Religious Education in the Preschool. There are current developments to produce guidelines for the new Prep year in Queensland that are compatible with the Early Years Guidelines. Concerns were voiced by Grajczonek (2000), about the lack of direction for early childhood teachers in the Brisbane Archdiocese and the need to define Religious Education in the early years within this context.

Secondly, appropriateness of teaching methods was another issue raised in the literature. The challenge for early childhood teachers in Religious Education remains to match appropriate teaching methods with content and experiences in a way that meets the needs of learners in the early years. As Montague aptly said:

> In teaching it is the method and not the content that is the message. The drawing out, not the pumping in.

The above quote appropriately raised the issue of the traditional versus the social-constructivist teaching methods discussed in the earlier section of this literature review. There appears to be a significant issue in the curriculum area of Religious Education. The majority of Religious Education literature focused on the content, that is, educational, catechetical or experiential. Each of the above approaches draws on different influences. For example, the catechetical or enfaithing approach is derived from the mission of the Church, that is, to evangelise and this has a place in Religious Education (Lovat, 2002). So too does the Educational approach. This approach encourages critical understandings which assist the learner to understand the bigger picture as well as how the knowledge is applicable at a personal level (Barry & Rush, 1998). Similarly, the experiential approach has a place in Religious Education as many of the rituals of the Catholic Church when 'experienced' can be a profoundly rich experience. Religious Education should be process oriented engaging the learner to seek answers to life's big questions (Erricker et al., 1997).

Thirdly, experiences of children are central to Religious Education in the early years. Erricker et al. (1997) recommended that Religious Education for young children take into account children's existing knowledge and experiences. Thus young children's ideas and big questions about the world should drive the content of Religious Education. Erricker et al. (1997) warned that a failure to do this could result in children being inundated with Religious content and never engaging with religion at a personal level, at the 'heart of religion' (p. 161). Similarly, it was suggested by Hardy (1979) that schooling and education may have a negative impact on children's religious experience.

Fourthly, learners in the early years need to experience what it is like to make a community (Berryman, 1990, 1992, 1994). They need to share authority and decision making, to feel a sense of belonging and ownership, to have a shared vision and to use creativity and imagination (Erricker et al., 1997, p. 168). In 1970, Tobey, recommended that Religious Education include opportunities for children to learn via sensory experiences and have direct contact with materials and concepts. This approach is evident in the work of Cavaletti (1992), and more recently Berryman (1990, 1992, 1994). For example, Cavaletti (1992), reflecting on observations of more that forty years of working with young children, developed a system in which children could play with 'props' and engage with 'Religious' materials through play and reflection. This approach was grounded in a Montessorian approach. Montessori

(1918) developed Practical Life activities which cater for children's needs to imitate life and practice real life activities. At the time they were developed by Montessori, these activities were contextually appropriate.

Similarly, Ryan and Stower (1998) suggested that real-life experiences such as caring for animals, cleaning and cooking are essential elements of an early childhood classroom. The challenge for early childhood teachers remains to find ways for young children to be engaged in meaningful experiences that reflect their diversity, experiences and context.

2.5.6 Summary

In summary, teachers' beliefs about learning and teaching Religious Education in early childhood have not been extensively investigated. As noted earlier there have been two North American studies investigating early childhood teachers beliefs about practice. First, Cherek (1997), found teaching religion was important and that teachers' have implicit theories about children's learning and teaching (Cherek, 1997). It was found that teachers' with Developmentally Appropriate Practice focus were more able to recognise the needs, abilities and interests of early childhood learners. This included viewing the individual as members of the faith community and to teach accordingly. By contrast, it was found that the 'traditional teachers' had more limitations on children and learning. Traditional teachers focused on expectations and levels of achievement. Cherek (1997) found one area of incongruence. The preferred method for teaching Doctrine of the Church was a 'lecture- mode'. This was claimed to be an important aspect of the teaching of Religion and of passing on the faith. Hence, this incongruence suggests a disparity between stated teachers' stated beliefs and practice.

2.6 Summary of the Literature

Early childhood teachers' beliefs and practice with regard to Religious Education is the focus of this study. The review of the literature was concentrated on the following areas:

- Nature of beliefs and the relationship with classroom practice
- Factors that impact on the relationship between beliefs and practice

- Teacher beliefs about learning and teaching in the early childhood; and
- Teacher beliefs about learning and teaching RE in the early childhood.

The review of the literature identified several areas in which further study is warranted. Specifically, these include:

- Research into teachers' beliefs and practices is limited in the areas of early childhood and in particular Religious Education within the context of Australian Catholic early childhood settings;
- Research in the context of Early childhood teachers in Catholic schools in Australia is non existent; and,
- Previous research has failed to examine extrinsic factors, such as those associated with Catholic schooling, Religious Education and teachers' beliefs and practices about learning.

Teachers' beliefs and practices have been studied frequently. However, this research is unique. It examines early childhood teachers in Catholic Schools in Australia. Teachers' beliefs and practices with regard to Religious Education are the focus. The study does not measure whether or not teachers' practice is appropriate but it measures the theoretical and practical aspects which, influence their beliefs and practice.

CHAPTER 3

METHODS CHAPTER

3.1 Introduction

The purposes of this chapter are; to (a) outline the methodological issues that were incorporated into the study, (b) describe and justify the methods selected and employed, (c) discuss the validity of the research, and (d) highlight ethical issues surrounding the study. The chapter contains the following sections:

- Section 3.2 focuses on methodological issues and includes a brief description of the theoretical framework underpinning the study and the use of a mixed method approach to data collection.
- Section 3.3 discusses the design of the research. This section includes the overall design, data collection methods for both quantitative and qualitative components of the study.
- Section 3.4 considers the threats to validity and reliability of the study. This section discusses threats for both the qualitative and quantitative components of the research.
- Section 3.5 outlines the ethical considerations of the research.

3.2 Methodological issues

3.2.1 Introduction

This section outlines the background to the methodology employed in the study. A brief discussion about the theoretical framework underpinning the study is presented. Following this, a justification for using a mixed method approach for data collection is included and a discussion about the methodological principles adopted in the study.

3.2.2 Theoretical Approaches to Research

The parameters of the study and the theoretical approaches and epistemological underpinnings of the research are outlined in this section. In the literature, the theoretical approaches and epistemological underpinnings are often referred to as paradigms or views of the world (Babbie, 2001). Neuman (2000) defined paradigms as:

> A general organizing theory for social theory and empirical research. It includes basic assumptions, major questions to be answered, models of good research practice and theory, and methods for finding answers to questions (p. 515).

Several theoretical approaches are discussed frequently in the literature, however two varying approaches pertain to this research. These approaches are: Interpretive and Positivist. Each presents a view of the world and methods or approaches for interpreting and understanding human behaviour (Babbie, 2001). The aim of the research is to answer the research questions using methods which are most appropriate. Paradigms generally address issues including the perception of reality, perception of human beings, nature of science, purpose, and methodology (Babbie, 2001; Bryman, 2001; Sarantakos, 1998).

For the purpose of this research, elements of both the Positivist and Interpretive approaches have been adopted. The Positivist paradigm has been defined as an approach that employs deductive thinking, using precise tools to measure data to confirm or discover causal laws and allows the researcher to make generalised predictions about behaviour (Bryman, 2001; Neuman, 2000). Reality in the Positivist paradigm can be perceived via sensory experiences and observation, it is out there to be discovered (Bryman, 2001). For example, reality is a separate entity and is governed by sometimes intangible but clear rules that can be seen and understood through observation and via events that enable humans to view their 'reality' (Sarantakos, 1998). People are viewed within this approach as being "rational" and "governed by social laws" and that "behaviour is learned through observation" (Sarantakos, 1998, p. 36).

By contrast, the Interpretive approach has its roots in 'meaning making' theories and different intellectual traditions from the Positivist approach (Bryman, 2001). The researcher "reads" experience and brings their subjective experience into the meaning making process thereby explaining and understanding human behaviour

(Bryman, 2001). Reality is derived through understanding the events and assigning meaning to social action (Bryman, 2001). The researcher's role in this approach is an active participant in the process and interpreting the observed behaviour within existing frameworks (Bryman, 2001). Neumann (2000) stated that the approach "focuses on achieving understanding of how people create and maintain their social worlds" (p. 71)

Teacher 'behaviour' and teacher's stories are under examination in this research. It is teachers' stated beliefs about (1) learning and teaching in general, (2) learning and teaching of Religious Education and, (3) Religious Education as a Key Learning Area that are of interest. Hence an approach that is organised, that "combines deductive logic and empirical observations" to confirm and predict generalised patterns of behaviour is appropriate for this research (Neumann, 2000, p. 66). The Positivist approach allows the researcher to make generalizations from the results. Combined with the interpretive approach, the generalizations can be supported by rich stories of individual teachers' beliefs and practices, an important reason for using a combination of approaches in the research.

Complementing the Positivist approach in this research is the interpretive approach which "focuses on achieving an understanding of how people create and maintain their social worlds" (Neuman, 2000, p. 512). The Interpretive approach is fundamentally different to the Positivist paradigm. Firstly, reality is perceived as being within people. It is not an abstract, distant entity but internal (Sarantakos, 1998). According to Sarantakos (1998),

> Reality is internally experienced and socially constructed through interaction and interpreted through the actors, based in the definition people attach to it.. It is not objective but subjective" (p. 36).

Secondly, people are central to this view of the world. Sarantakos (1998) described the people in this viewpoint as "actors assigning meaning to events" (p. 37). This approach allows for making sense of experience and is based on common sense. This research aims to understand teachers' stated beliefs and their behaviour in the classroom. The use of a mixed method approach to data collection allows for the research questions to be answered more completely. As indicated earlier, the study does not fit neatly into one view of the world. The approach to the research is grounded in the ideals of seeking answers to the research questions and to use methods which are the most effective and efficient.

In summary, reality in this research is viewed through the eyes of the participants, the researcher and defined within the contexts outlined in Chapter 1. Miller (1991) suggested that the research orientation is defined by the nature of the research. The aim of the research in this study is to produce new knowledge, and to explore existing relationships using methods that gain information directly from the participants. Each method used to gain information from participants has its own benefits and these will be discussed further in next section.

3.2.3 Rationale for Methods

The aim of the research was to explore early childhood teachers' stated beliefs about learning and teaching and to examine their classroom practice. The two-fold nature of the research explores both beliefs and classroom practice.

3.2.3.1 The advantages of the mixed method approach

The literature suggests there are five main reasons for selecting both quantitative and qualitative methods to collect and analyze data in this study. Thomas (2003) argued that a mixed method approach is complementary. Namely, a mixed method approach:

(1) Strengthens the research;

(2) Allows the research questions to be viewed through different lenses;

(3) Accentuates the complex nature of the social reality which can be explored;

(4) Highlights the relationship between the research questions and the methods employed; and,

(5) Features frequently as an approach to research in this area.

Firstly, a bi-methodological approach to data collection strengthens the research (Thomas, 2003). Quantitative methods are deductive and are generally used to test a hypothesis and theory. Quantitative methods conceptualise reality in terms of variables and the relationships that exist between them (Thomas, 2003). The instrument is pre-structured and measures the data (Punch, 1998; Strauss & Corbin, 1990). Quantitative methods of data collection use numbers to indicate the quantity, and to analyze the data in order to quantify it (Punch, 1998). By contrast, qualitative data is information about the world that is not in the form of numbers (Punch, 1998). Strauss and Corbin (1990) defined qualitative research as that which "produces

findings not arrived at by means of statistical procedures or other means of quantification" (p. 17). Each approach has benefits as well as limitations. Generally, qualitative approaches are used to generate the hypothesis and theory (Johnson & Christensen, 2000, p. 18). Qualitative methods deal with cases and the methods are sensitive to processes, contexts, and to the lived experiences of the participants (Punch, 1998; Strauss & Corbin, 1990).

Secondly, mixed methods allow one to look at the same question through different lenses (Thomas, 2003). Data collected in a variety of ways can be checked against other data collected. This process ensures reliability of the data collection methods and checking the consistency of data (Burns, 1997). A combined approach to data collection and analysis assists the research to answer questions and consider various perspectives.

Thirdly, the research subject matter reflects a complex social reality (Bryman, 2001). The methodology used needs to reflect the complexity of the social reality under investigation (House, 1994). In the case of this research, the use of multiple methods is warranted as teachers' stated beliefs and classroom practice are being studied and these constitute complex social realities (House, 1994; Fetterman, 1988). There was also a concern about measuring practice using only quantitative methods. Meade and McMeniman (1992) recommended that practice is best examined by observation and interviews. Hence, a mixed method approach is required for both data collection and analysis.

Fourthly, there needs to be a relationship between the research questions and the selected methods of data collection (Punch, 1998; Schulman, 1988; Seidman,1991). The nature of the research questions signal the selection of research methods. In Chapter One, the research questions were discussed. Questions were identified as being either quantitative or qualitative in nature. Howe and Eisenhart (1990) stated that "research questions should drive data collection techniques and analysis, rather than vice versa" (p. 5).

Fifthly, the use of a mixed method approach has been used in a number of studies exploring beliefs and practice. For example, Gogolin and Swartz (1992) studied students' attitudes towards science of non-science college students using an attitude instrument and interview data. Also, Swiss Secondary school teacher's attitudes and use of study charts included surveys and in-depth interviews (Huberman, 1993). Similarly, the organizational dynamics of teachers in their workplaces was studied by

Kushman (1992). Phase One of the study examined the statistical relationships between teacher commitment and organizational antecedents and outcomes. The second phase included case studies to understand the dynamics occurring in the workplace.

In summary, Miles and Huberman (1994) asserted that there are some similarities between the two approaches. For example, they stated that "Both kinds of data can be productive for descriptive, exploratory, confirmatory and hypothesis testing purposes" (Miles & Huberman, 1994, p. 42). Alone, each method has its own merits. A combined approach maximises the strengths or benefits of each approach and compensates for the weaknesses of each (Lincoln & Guba, 1996). Therefore, five reasons have been provided to justify the adoption of a mixed method approach to data collection and analysis in this study. Punch (1998) argued that the benefits of a mixed method approach can be summarised as:

- Data can be checked against the findings derived from another type of data,
- Qualitative research facilitates quantitative research, providing background information, context, hypothesis source, and scale construction.
- Quantitative and qualitative research when combined, provide a general picture and cover the gaps left by the other methods.
- Quantitative research facilitates qualitative research, providing a mechanism for selecting subjects for qualitative research.
- Qualitative research facilitates the interpretation of relationships between variables in order to explain underlying factors.

3.2.3.2 The application of the multi method design for this research

Three models of combined research design were discussed in the literature. The three models of combined research are: (1) two distinct and separate phases, (2) one dominant or major method and one subordinate or minor method, and (3) mixed methodology, one that is integrated throughout the entire study (Cresswell, 1994). For the purpose of this research, two distinct and separate phases were used in the research design. Both the quantitative and qualitative phases were interactive. Data from Phase one was used to purposefully select participants for Phase Two of the study. Initially, a survey was used to collect information about teacher's beliefs and secondly, observation of teacher's classroom practice, semi-structured interviews and the collection of artifacts were used to explore a purposefully selected sample of

teachers' classroom practice. Table 3.1 clearly and succinctly describes the distinguishing characteristics of the quantitative and qualitative research methods that pertain to this project.

Table 3.1

Leedy and Ormrod's (2001, p. 102) characteristics that distinguish methods of research

Question	Quantitative	Qualitative
What is the purpose of the research?	To explain and predict To confirm and validate To test theory	To describe and explain To explore and interpret To build theory
What is the nature of the research process?	Focused Known variables Established guidelines Static design Context-free Detached view	Holistic Unknown variables Flexible guidelines Emergent design Context-bound Personal view
What are the methods of data collection?	Representative, large sample Standardised instruments	Informative, small sample Observations, interviews
What is the form of reasoning used in analysis?	Deductive analysis	Inductive analysis
How are the findings communicated?	Numbers Statistics, aggregated data Formal voice, scientific style	Words Narratives, individual quotes Personal voice, literary style

The above table provides a summary of how quantitative and qualitative methods are distinguished. The use of both methods deepens and broadens our understanding of the interaction between teachers' beliefs and practices.

3.2.3.3 Summary

The aim of this section was to provide a justification for the selection of a mixed method approach to data collection and analysis for the research. A combined approach, both qualitative and quantitative methods, assists in answering the research questions (Punch, 1998). Furthermore, the selection of research methods is intricately linked to the purpose of the study. That is, this study aims to verify or confirm a theory and also to generate new ideas and information (Punch, 1998). With this in mind, the limitations of educational research were also considered when selecting the methods for data collection.

3.3 Research design

3.3.1 Introduction

The previous section provided a justification for the use of a mixed method approach to data collection and analysis. The design of the research has elements of structure and emergence. Miles and Huberman (1994) suggested that the research design should be tailored or purpose-built for each individual study. This section outlines the unique design of the study.

- Section 3.3.2 describes the first Phase of the study. It specifically explores issues of design, sample and sampling, data collection and data analysis.
- Section 3.3.3 discusses the second Phase of the study. In particular, it outlines the design, sampling techniques employed, methods used for data collection and data analysis.

A description of the development and validation of the survey instrument developed for Phase one can be found in Chapter 4.

3.3.2 Overall design of the Study

This section of the chapter describes the design of the research. *Figure3.1* illustrates the relationships between the research questions and the methods of data collection. The flow chart begins with the research questions as outlined in Chapter One. As

part of the design of the research, both quantitative and qualitative data contribute to the results and findings of the research.

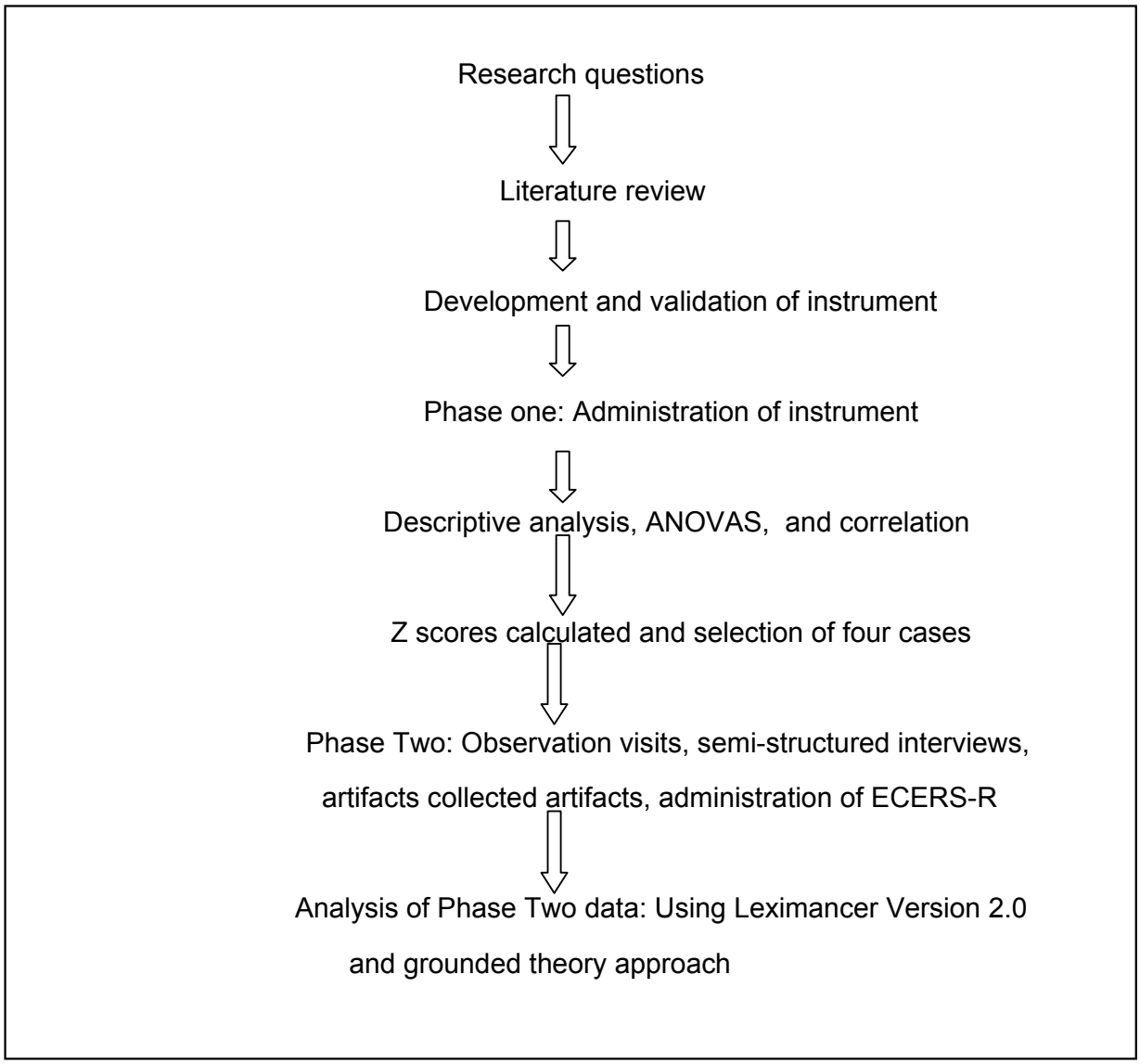

Figure 3.1. Research design Phases.

The above figure outlines the design Phases of the research and illuminates the procedures undertaken to collect and analyze data. A pilot study was conducted in order to test the instrument developed. Following the pilot study, the sample was identified and questionnaires were posted to schools identified as having early childhood teachers. The collected data was input into SPSS version 11.0, analyzed and from the results teachers were purposefully selected for Phase Two. Potential teachers for Phase Two were contacted and details of the observation visit and interview were provided and an appropriate time was negotiated. The data from

Phase Two was analyzed and together with the results from Phase One, form the combined results for the research.

3.3.3 Data collection methods

There was no one instrument that contained all of the required elements to conduct the research. The following sections describe the data collection methods employed to conduct the research. A brief statement about the pilot study is followed by a more detailed overview of Phases 1 and 2 data collection methods and analysis for the main study.

Data collection commenced after ethical clearance was granted by ACU Ethics Committee. Contact was made with Diocesan Directors of all Dioceses in Australia. Once there approval was given, School Principals were sent a letter asking for Early Childhood teachers on staff to be involved in the study. Teacher participants were provided with an information letter and the survey.

3.3.4 Pilot study

An instrument, grounded in the literature, was developed with consideration given to the previous work of Cory (1995), Cherek (1997) and Smith (1992) (See Appendices C, D, E). The Early Childhood Teacher Beliefs about Learning, Teaching and Religious Education (ECTBLTRE) instrument assesses early childhood teachers' beliefs about learning and teaching and with regard to Religious Education in early childhood classrooms in Australia. Briefly, the instrument collected the following data:

- Demographic details about teachers, including gender, age, education and qualifications and teaching experience;
- Teachers' beliefs about learning;
- Teachers' beliefs about teaching;
- Teachers' beliefs about learning in Religious Education; and,
- Teachers' beliefs about teaching Religious Education.

Chapter 4 provides a complete description of the processes utilised to develop and trial the instrument for the main study. It also outlines the results of the pilot study and the implications for the main study.

3.3.5 Phase One- Quantitative data collection

Design

An ex-post facto design was employed for Phase One of the main study. Ex-post facto refers literally to 'after the fact' (Leedy & Ormrod, 2001; Neuman, 2000). Black (1999) and Sarantakos (1998) stated that ex-post facto design is used in real life studies that involve some measurement via tools or instruments. The design recognised the fact that not all independent variables can be controlled. These variables included life experience and education, making this design fundamentally different to experimental research, which aims to control variables (Kerlinger, 1986). Efforts were made by the researcher to remain neutral and objective in the conduct of this research. The researcher provided details of the study in a letter to all the participants and provided them with the instrument for completion (See Appendix D).

Sample and Sampling

Representativeness was a key issue in the sampling process. Sarantakos (1998) implied that the sample needed to reflect the attributes of the whole population. For the purpose of this study, it was intended that the findings produced were representative of the whole population. When the sample is highly representative of the population, the results are more generalizable, valid and the study is of higher quality (Sarantakos, 1998). Gay (1996) and Leedy (1997) suggested the following guidelines be utilised when sampling:

- The larger the sample size, the smaller the percentage of the population is required for a representative sample;
- For populations less than 100, the whole population should be sampled; and,
- If the population is 500, 50% should be sampled.

Initially, Early Years teachers in Queensland were to be the focus of the study. There are approximately 180 Catholic preschool teachers in Queensland. According to the guidelines suggested by Gay (1996) and Leedy (1997), this population is considered small and therefore, the survey was sent to Kindergarten teachers in NSW, Preprimary teachers in Western Australia, Prep teachers in Victoria and Tasmania, and Reception teachers in South Australia. The nomenclature used in each state differs. Essentially, in each state the types of teachers used in the sample work with children from 4 to 6 years. Table 3.2 outlines the total numbers and percentages of early years teachers in each location.

Table 3.2

Frequency of Early Years Teachers in each location in the main study

State	Expected	Observed	Percentage of population	Percentage of sample
Queensland	180	102	15	19
NSW	444	198	38	37
Victoria	387	151	33.5	28
Western Australia	123	62	10.49	10.99
South Australia	13	7	.01	.01
Tasmania	25	20	2	4
TOTAL	1172	540	100	100

Comparing the percentage population with the percentage of sample, it appears that the sample is representative of the population of Catholic early childhood teachers in Australia. Forty six percent (46%) of the population responded to the survey. Therefore, it is conjectured that the findings of this study are generalizable.

Data Analysis

A brief overview of the steps undertaken for analysis of the data is outlined. SPSS 11.0 was used to manage, store and analyze the data. Using this statistics package, the following tasks were undertaken:

- Data was coded and entered into the data base
- A factor analysis was used to identify scales and for the reduction of data.
- Cronbach alphas were calculated in order to measure internal consistency for each scale and to determine the reliability of each scale.
- Correlational analyses provided comparisons between the data.
- Each participant was given a factor score.

- Cross tabulations were undertaken with the teaching factors to select participants for Phase Two
- Frequency mean tables for each factor were used to ascertain agreement between scales and to examine the average distribution of cases according to each variable (Neuman, 2001).

Chapter five provides a summary of the results for Phase One of the main study and describes the processes undertaken to analyze the data collected.

Summary

Phase One involved the use of quantitative approach to data collection and analysis. Participants for Phase Two were selected from the responses provided following the data analysis. The following section describes key methodology adopted for Phase Two of the research.

3.3.6 Phase Two- Qualitative data collection

Design

A qualitative Phase of the study was included in the research to illuminate and enrich the quantitative data. Black (1999) and Sarantakos (1998) defined qualitative data as descriptions, which describe processes and relationships through the use of interviews, and observations that do not involve quantitative data. Qualitative data lacks generalizability and cannot be easily replicated (Black, 1999; Sarantakos, 1998).

The role of the researcher was critical in Phase Two. Close proximity to the participants in data collection and data analysis was essential in Phase Two of the research. This was important so the researcher could get to know the participants in order to understand their thinking and actions. This involved observation of the teacher's classroom practice as well as interviews to discuss their practice using photographs and transcripts as stimulated recall.

Sampling

Representativeness is not typically a quantitative research issue. Miles and Huberman (1994) identified the following issues for consideration in planning the sampling techniques used in qualitative design. Firstly, the quality of the research is enhanced by increasing the number of cases. Secondly, purposefully selected cases is a feature that assists in ensuring the sample is representative. Finally, random

sampling from the entire population contributes to ensuring that sampling techniques are rigorous. Purposeful sampling is the "selection of information rich cases for study in-depth" (Patton, 1990, p. 169). Some purposeful sampling strategies include site selection, network sampling or sampling by case type (McMillan & Schumacher, 1993). For the purpose of this research, sampling by extreme case types was the strategy employed. This type of sampling is recommended by Gay, Mills and Airasian (2006) when using a mixed method approach to data collection. Factors from Teaching and Religious Education scales were used to identify four extreme cases. There are four possible extreme case types. These include Constructivist-Educational, Constructivist- Faith forming, Traditional- Educational and Traditional-Faith Forming.

There were four methods employed to collect data in Phase Two. The first method involved the observation and documentation of teacher's typical classroom practice using digital photographs with the aid of an audio-tape to record the teacher's classroom practice. The second method used was a semi-structured interview in which the photographs and transcripts were used to stimulate a discussion about what was observed. The method is called stimulated recall (Keith, 1988; Meade & McMeniman, 1992). Participants were asked whether these examples represent typical practice. It is suggested in the literature, that the use of stimulated recall

> "Confronts teachers with their recent actions in the classroom, and it minimises the superficial self- presentation and allows insights into the personal theories and pedagogical beliefs underlying teachers classroom actions" (McMeniman & Wilson, 2000).

A discussion followed and the participants were able to describe various aspects of their beliefs and practice (Mead & McMeniman, 1992).

The third method used to collect data was the Early Childhood Environment Rating Scale- Revised (ECERS-R, 1998). The ECERS was developed by Harms, Clifford and Cryer (1998), and is believed to measure elements of early childhood classroom environments. Some of these elements include: space and furnishings, activities, interactions and program structure. This scale was completed by the researcher during the observation visits to the classrooms. The fourth method used to collect data was to ask teacher participants to provide artifacts such as planning documents and other items they believed would assist the researcher to understand their classroom practice and context.

Data Analysis

Transcripts of the semi-structured interviews were analyzed in two ways. The first involved using a grounded theory approach to data analysis. Dick (2002) described the process of the grounded approach as an emergent process with specific steps undertaken in the research situation. These steps include: note-taking, coding and categorizing, sorting, writing and constantly comparing data. The second focused on transcribing the interview and undertaking a text analysis of the interviews using the program Leximancer (Version 2). This software package was developed by Williams (2004) and is believed to 'mine' data and present concept maps of the emerging themes and concepts within the data. The transcribed interviews were entered into *Leximancer* for text analysis. The outcome of this process was compared with the data that was categorised according to themes from the literature and from the open ended question responses from Phase one. These themes included a range of teachers' beliefs about early childhood learning and teaching in general and in particular with regard to Religious Education. Photographs were labeled and categorised and visually added to the quality of the data collected. The *ECERS* were scored and the results calculated. The data analysis methods employed in the research can be found in Chapter 6 of the thesis.

3.4 Comments on Transferability, Credibility, and Dependability of the data

3.4.1 Introduction

This section addresses the issues of validity and reliability of the research for both the quantitative and qualitative aspects of the study. Validity is discussed in the literature as containing two components: internal and external validity. Neuman (2000) defined validity as the "means there are no errors internal to the design of the research project" (p. 172). High internal validity implies that the number of errors is limited to a few and conversely, low internal validity suggests that several errors may exist (Neuman, 2000). External validity means that the results of the study can be generalised to other populations (Neuman, 2000), whereas reliability is concerned with the accuracy of the data.

3.4.2 Validity and reliability of Quantitative component of the research

There are several issues that were considered regarding the validity and reliability of the data collection tools and analysis process. The first issue is validity. Validity is the ability to produce findings that are in agreement with theoretical or conceptual values (Sarantakos,1998). Validity consists of two components, internal and external validity.

Internal validity is concerned with the instrument. External validity is concerned with the sample. For the purpose of the research, the instrument was grounded in the literature about early childhood teachers' beliefs and practices and is based on instruments used in the past in similar studies (e.g., Smith, 1992; Cory, 1995; Cherek, 1997). The processes used in developing this instrument are summarised in Section 4.6 of this thesis. In order to reduce threats to the external validity of the study, the sample needed to be representative and stable over the period. As Table 3.2 indicates, the sample that participated in the main study was indeed representative of the early childhood teacher population of Australia. This issue is discussed further in Chapter 5, Results of the Quantitative Data.

In the research, all threats to external validity were addressed. Firstly, the sample was representative as the population of early childhood teachers in Australia were surveyed. Therefore, the findings of this Phase were representative of the population. Secondly, the instrument was sent to teachers within a limited time frame thereby limiting any possible effects of time and other events. Thirdly, consideration of independent variables were included in the analysis of the data and because a large number of the population was sampled. The results were representative and are generalizable.

3.4.3 Validity and reliability of Qualitative component of the research

Validity and reliability are important issues for consideration that ensure a high standard for the research. Validity in qualitative research is concerned with the trustworthiness and credibility of the results. For the purpose of the research, the participants were asked to read their transcripts and findings to determine whether or not they were accurately represented. Neuman (2001) described this process as Member Validation. This process enhances the accuracy and validity of the research.

In this research, consistency was ensured through the use of a similar process with each case, that is, the use of digital photographs to support written observations, collection of artifacts, completion of the *ECERS* and a semi-structured interview for

all participants. The rigour of the analysis, was ensured in this research a process of cross-checking or triangulation of the data (Neuman, 2001). In this research, the results of the first Phase were checked through observation and an interview clarified any ambiguities.

Weirsma (1991) suggested that in qualitative research, variance is explained through an "inductive process of observation resulting in a narrative description of the phenomenon under study in the specific context" (p. 91). An inductive process was employed in the research and the results of Phase Two were checked against the results of the first Phase.

3.5 Ethical Considerations

Research in the social sciences, whether it is qualitative or quantitative, involves the study of human beings, relationships and behaviour (Bryman, 2001). Hence, there was a need for adherence to ethical behaviour by the researcher (Leedy & Ormrod, 2001; Punch, 1998). The literature identifies five main ethical issues. These include:

- Voluntary participation and response from the participants;
- Informed consent and awareness of the nature of questions for all participants;
- Preservation of participant's private and confidential details;
- Consideration to the research process to ensure it was free from physical, emotional and psychological harm, that is pressure, guilt, embarrassment, injury, discomfort, unnecessary risks; and,
- Concern with the accuracy in data gathering, processing, analyzing and reporting (Burns, 1997; DeVaus, 1995; Glesne & Peshkin, 1999; Leedy & Ormrod, 2001;Neuman, 2000; Sarantakos, 1998).

For the purpose of this research, the participants were free to participate or to leave the study at their own choice. Each participant was provided with information about the study, both verbally and on written consent forms.

In conclusion, this research project was conducted in accordance with the policies of the Australian Catholic University Research Projects Ethics Committee. As the participants of the study are employees of Catholic schools, the Directors of each

Catholic Education Office and School Principals were asked for permission to conduct the study. Consent was given by both the Diocesan Directors and School Principals. Individual teacher participants were provided with detailed information about the project prior to completing both Phase 1 and Phase 2 of the research. (See appendix C for Copies of letters to Diocesan Directors, School Principals and Teacher- Participants.)

3.6 Chapter Summary

The purpose of this chapter was to outline the methodology employed in the research. Three elements of the study make it unique. First, an instrument was developed to measure Early Childhood teachers' beliefs. Second, both quantitative and qualitative data collection methods were used in the study. Third, a second instrument (*ECERS-R*) was used to collect data about teachers' classroom practice. The following chapter focuses on the development and validation of the *Early Childhood Teacher Beliefs about Learning, Teaching and Religious Education* Instrument.

CHAPTER FOUR

RESULTS FROM THE PILOT STUDY

4.1 Introduction

An aim of this research was to investigate if teachers' beliefs and practices changed as the curriculum area changed. Thus, there were two aspects central to this study. Firstly, the study is an exploration of early childhood teachers' beliefs about (a) learning and teaching in general and (b) learning and teaching in Religious Education. Secondly, it is well documented in the literature that teachers' beliefs underpin their classroom practice. An instrument, grounded in the literature, was developed for the purposes of this research. An extensive search of the literature failed to find a single instrument that effectively measured early childhood teachers' beliefs about learning, teaching and Religious Education. Consideration was given to previous work of Cory (1995), Cherek (1997) and Smith (1992) in the development of the *Early Childhood Teachers' Beliefs about Learning, Teaching and Religious Education* instrument for this research. This instrument assessed early childhood teachers' beliefs about learning and teaching; and, Religious Education learning and teaching in Australian early childhood classrooms. Briefly, the instrument collected the following data:

- Demographic details about teachers including gender, age, education, qualifications and teaching experience;
- Teachers' general beliefs about learning;
- Teachers' general beliefs about teaching;
- Teachers' beliefs about learning in Religious Education;
- Teachers' beliefs about teaching Religious Education.

This chapter contains the following sections:

- Section 4.2 focuses on the rationale for developing an instrument to measure teacher beliefs and includes a brief overview of the literature from which the instrument was derived.

- Section 4.3 discusses the processes undertaken to design, trial and evaluate the effectiveness of the instrument. This section includes the development of scales and items and the trial of the instrument.
- Section 4.4 outlines the results of the quantitative component of the pilot study and identifies issues for consideration in the main study.
- Section 4.5 describes the results of the qualitative component of the pilot study and dimensions identified for the main study.
- Section 4.6 discusses the issues of validity and reliability pertaining to the conduct of the pilot study.
- Section 4.7 outlines the issues identified in the conduct of the pilot study and outlines the implications for the main study.

4.2 Rationale for development of an instrument

As indicated in Chapter 2, the Literature Review provided grounds for the development of an instrument that assessed the beliefs of early childhood teachers. Four areas of the literature were consulted in order to identify the categories required for the scales and item development. These were early childhood teachers' beliefs about (1) learning, (2) teaching, (3) learning and teaching Religious Education, and (4) factors that impact on an early childhood teacher's classroom practice.

4.2.1 Early Childhood Teachers' Beliefs about Learning

The literature presented several important aspects of early childhood teachers' beliefs and knowledge about children's learning. For the purpose of the research, two opposing viewpoints were adopted: the social-constructivist approach and the behaviourist approach. The social-constructivist approach to learning suggests that the learner is actively involved in their own learning. Play is a central tenet of the constructivist approach; it is a means by which learners make sense of their world (e.g., Levin, 2000; Piaget, 1971; Vygotsky, 1976).

By contrast, the behaviourist approach proposes that learners respond to external stimuli and exhibit little control over their own learning processes. In this approach, there is an emphasis on skill development and acquisition of skills necessary for schooling and academic learning. Fundamental to this approach is the notion of rote

learning, with the belief that continual repetition strengthens the acquisition of knowledge (e.g., Weikart & Schweinhart, 2000).

For the purpose of the development of the pilot instrument, a range of statements were taken from the literature that represented each point of view. In an American study, Smith (1992) developed an instrument to assess early childhood teachers' beliefs and practice. Smith had two scales: *Developmentally Appropriate Practice* (children constructing their learning through play) and *Developmentally Inappropriate Practice* (transmission of information from adults). The instrument developed for this study builds on Smith's work and uses terminology more appropriate to the Australian context.

4.2.2 Early Childhood Teachers' Beliefs about Teaching

There were many approaches to teaching described in the literature. Two opposing views were selected for the focus of this research, namely the child-centred and the teacher-directed approaches. The child-centred approach was one that revolved around the needs, interests and abilities of children. It was described as emergent and was characterised by flexibility and responsiveness to changes in children's needs, interests and abilities (Gandini, 1997; Stipek & Byler, 1997). The assumptions underpinning this approach included children as competent and developing within social contexts. Play was viewed as a means by which children communicated their understanding and made sense of environment, relationships and concepts (e.g., Reynolds & Jones, 1997). By contrast, the teacher-directed or traditional approach was characterised by the amount of control exhibited by teachers, and their ideas about the nature of the activities and experiences for children. In this approach, the emphasis was on teaching skills children required for the next level of education (e.g., Marcon, 1999; Weikart & Schweinhart, 2000).

4.2.3 Religious Education

As suggested in the literature, historically there have been a number of approaches to teaching Religious Education. These approaches clustered into three main categories and are linked to changes in education. They also reflected changes as a result of the shift in society's values and beliefs. The three main categories identified in the literature were: Catechetical/ Faith forming, Integrated, and Educational.

The first approach, the catechetical/faith forming approach, was also referred to in the literature as a traditional approach. The aim of this approach was to transfer

knowledge, beliefs and attitudes to those being initiated into the religion. This approach assumed that the truth is taught and that this is done without debate (e.g., Lovat, 2002). By contrast, the implicit or integrated approach was a method used to introduce children to attitudes associated with religion but it was not specifically religious. The approach encourages students to care, share, engage in ethical behaviour, and be kind, loving and accepting of differences (Lovat, 2002). Finally, the explicit or educational approach introduced students to religious content. This might include prayer, scripture, and celebrations related to the religion (Lovat, 2002).

4.2.4 Factors that impact on teachers' beliefs and practice

The literature identified several dimensions that impacted on teachers' classroom practice. For the purpose of the Pilot Study, demographic data was used to identify factors impacting on teachers' beliefs and practice. These included the gender, age, teaching qualifications for Religious Education and early childhood, teaching experience, and the teaching context.

4.2.5 Summary

In summary, seven dimensions were derived from the literature about learning, teaching, and learning and teaching Religious Education that informed the development of the instrument. In the area of learning, two categories were identified. These beliefs were at extreme ends of the continuum identified in Chapter Two of this research, namely, the social-constructivist and behaviourist/traditional views and beliefs about learning. Similarly, there were two extremes identified in Chapter Two about beliefs and practice of teaching in early childhood. These positions were named learner-centred and teacher-directed. Within the Religious Education literature three approaches to Religious Education are highlighted. These included Catechetical, Integrated, and Educational approaches. Finally, the literature highlighted a number of demographic factors that impact on teacher beliefs and practice. These demographic categories included: the gender, age, qualifications in both early childhood and Religious Education, and the teaching experiences of each respondent. Table 4.1 summarises the seven dimensions derived from the literature to construct the instrument to assess teachers' beliefs about learning, teaching and Religious Education.

Table 4.1

Categories from literature for development of dimensions

Learning	Teaching	Religious Education
Social-constructivist	Child- centred	Catechetical
Behaviourist / Traditional	Teacher- directed	Integrated approach
		Educational

The above table illustrates the dimensions grounded in the literature and these formed the basis of the instrument developed and validated in the following section.

4.3 Development and validation processes

4.3.1 Instrument development

The development of the instrument was grounded in the following criteria.

1. Instrument structure should be consistent with other educational instruments, that is, it should have internally consistent scales.
2. The instrument should have items and scales that are relevant to teachers in a range of contexts.
3. The instrument should reflect the current understandings of early childhood teachers and be consistent with the current knowledge and practice in the field.
4. The instrument should be clear for early childhood teachers.
5. The instrument should not be cumbersome. It should be brief and yet comprehensive so that teachers are able to complete it quickly.
6. The instrument should reflect previous research in the area of early childhood teachers' beliefs about learning, teaching and Religious Education.

The criterion above synthesises the research on instrument development (Dorman, 1994; Foddy, 1995; Oppenheim, 1992; Salant & Dillman, 1994). Using the above criteria, a 60-item preliminary instrument was developed and tested in the field. To ensure clarity, the scales were reviewed by several academics and experienced teachers in the fields of Early Childhood and Religious Education.

The scales were developed from the categories derived from the literature. Selecting items for the scales was a challenging component of the scale construction (Bartholemew, 1996; Dillman, 2000). Items were selected according to their conceptual fit.

The literature provided the dimensions adopted for the scales. These include:

- Teachers' beliefs about learning from a constructivist perspective;
- Teachers' beliefs about learning from a behaviourist perspective;
- Teachers' beliefs about teaching from a child-centred approach;
- Teachers' beliefs about teaching from a teacher-directed approach;
- Teachers' beliefs about Religious Education from a catechetical approach;
- Teachers' beliefs about Religious Education from a educational approach;
- Demographic details of the participants, including age, gender, qualifications, and teaching experience.

4.3.2 Developing the instrument items

The Pilot Study instrument consisted of two components: items related to early childhood teacher beliefs about learning, teaching, Religious Education, and open-ended questions. Open-ended questions were included to probe participants' understanding and to provide a basis for the development of semi-structured interviews and to inform Phase Two data collection. Teacher belief scales were selected and the literature provided the basis for each item to be developed. The scales developed by Smith (1992), and used by Cory (1994) and Cherek (1996) were referred to and some items selected for adaptation. In the process of having the items scaled by outside experts and other academics, it was decided that these items needed to be rewritten to fit the Australian context and the recent changes to the field's understanding of teaching and learning. The items were checked to ensure validity and clarity by academics with research experience in beliefs, early childhood education and Religious Education.

A five-point Likert scale was used as a measurement of teachers' beliefs about learning, teaching and Religious Education. This type of scale has five positions: strongly agree, agree, neither agree or disagree, disagree and strongly disagree, with each position assigned a numerical value. Burns (1997) stated the advantages of this method in that "it is easy to prepare and that the method produces more homogeneous scales and increases the probability that a unitary attitude is being measured" (p. 461).

Table 4.2 presents sample items for each scale and illustrates how the items conceptually fit into each of the scales.

Table 4.2

Scales and sample items

Scale		Example items
Learning	Social-constructivist perspective	BL 2 Learning involves the learner being actively involved in the construction of knowledge.
Learning	Behaviourist / traditional perspective	BL 1 Children become competent learners as they are rewarded.
Teaching	Child-centred approach	BT 20 Planning a curriculum that is responsive to children's learning is my focus.
Teaching	Teacher-directed approach	BT 37 It is my ideas about activities and themes which dictates what happens in my program.
Religious Education	Catechetical	BRE 58 Religious Education in the classroom should teach the rules of the Church.
Religious Education	Integrated	BRE 63 I use concepts such as people who help us, lifecycles and caring for the environment as ways for children to make links with RE concepts.
Religious Education	Explicit / educational	BRE 50 Religious Education is a curriculum area that allows students to learn about concepts associated with Religion.

The conceptual fit of each item into each of the scales is demonstrated in the following discussion. Learning from a social-constructivist perspective focuses on learning as a process that engages the learner. This process implies that the learner is actively involved in the construction of their own knowledge (Berk & Winsler, 1995). Item BL 2 “Learning involves the learner being actively involved in the construction of knowledge” is an example of an item that is found in this bank of questions.

By contrast, learning according to the behavourist or traditional viewpoint focuses on a stimulus-response view of learning, with limited interactions with the environment. In particular, this example highlights the notion that children’s competence and learning occurs as a result of external rewards (Smith, 1992). Item BL 1 “Children become competent learners as they are rewarded” is evidence of this viewpoint as an item in the questionnaire.

A child-centred approach to teaching is characterised by the way in which the curriculum is responsive to children’s needs, interests and abilities. Within this viewpoint, the child is the starting place for curriculum decision making. The sample item BT 20 “Planning a curriculum that is responsive to children’s learning is my focus” is compatible with the child-centred approach to teaching (Smith, 1992).

The teacher-directed approach to teaching emphasises the role of the teacher in planning and implementing the curriculum. The sample item BT 37 “It is my ideas about activities and themes which dictate what happens in my program” fits within this conceptual framework (Arthur et al., 2005).

The sample items for Religious Education provide clear examples of the conceptual framework for each scale. The catechetical scale is characterised by instilling knowledge into students and implies a high level of teacher-direction (Lovat, 2002). Item BRE 58 highlights the “rules of the Church” as being important knowledge for students to learn.

The implicit or integrated approach emphasises attitudes associated with religion, but this approach does not necessarily incorporate specific content about religion. Caring for others and exhibiting ethical behaviour are exemplars of this approach. Item BRE 63 provides an example of this concept. By contrast, Item BRE 50, the educational approach to Religious Education, promotes the notion that there are skills, knowledge and attitudes to be learned through a range of experiences within the classroom context (Lovat, 2002). Appendix A contains the Pilot Study instrument. It

consisted of 60 items developed from the literature and nine open-ended qualitative questions.

The qualitative component of the Pilot Study instrument included nine open-ended questions to further probe teachers for the development of instrument for the main study. Five clusters of questions were evident in the open ended questions. These clusters included an early childhood question, beliefs about teaching Religious Education, beliefs about children's learning in Religious Education, Faith development and Catholic schooling. Table 4.3 presents the open-ended questions posed for the Pilot Study and within conceptual clusters.

Table 4.3

Clustering of open-ended questions for the Pilot Study

Cluster	Open ended question/s
Early childhood	Describe your philosophy of teaching and learning.
Teaching in RE	Describe your typical approach to teaching and learning in Religious Education in the preschool? How would you describe the focus of your RE program in your preschool. Is it an educational approach (e.g., related to syllabus, guidelines etc) or one which develops faith (e.g., related aspects of being a member of the Catholic church)? Give examples.
Learning in RE	What do you believe preschool aged children are capable of learning about faith? If possible please give examples. Which RE concepts are preschool aged children capable of learning? If possible please give examples. Are preschool aged children capable of a spiritual awareness? If possible please give examples.
Faith development	For you, what does faith development mean?
Catholic schooling	What do you believe is the nature and purpose of Catholic schools?

Demographics were included using similar questions as used by Smith (1992). Teachers were asked to answer the following:

- Gender (male/female);
- Age;
- Early childhood and Religious Education teaching qualifications;
- Teaching experience including number of years teaching and year levels taught.

The development of the instrument was an important aspect of the methodology for the main study. The next section reports on the validity of the instrument.

4.4 Validation of the instrument

This section describes the results found in the quantitative component of the Pilot Study. In particular, the processes and the procedures undertaken are described. A series of factor and reliability analyses were utilised to analyze data. A Varimax rotation with a Kaiser Normalization was used to obtain the principal components for these analyses. These processes were undertaken in two parts, namely, (a) the analysis of items related to teacher beliefs about learning and teaching, and (b) the analysis of items related to Religious Education.

4.4.1 Pilot Study Quantitative Data Analysis

The validation of the pilot study instrument is described in this section. This description includes the sample, the procedures of validation, item, scale and factor analysis as well as the internal consistency and reliability of the instrument.

Sample and procedures for validation of the Pilot Study instrument

The population of preschool teachers in Queensland for the Pilot Study consisted of 180 teachers in Catholic schools in five dioceses. The instrument responses were obtained from two sources. First, early childhood teachers from the Brisbane Archdiocese attending a Professional Development day were invited to complete a survey. Second, preschool teachers in the Townsville, Cairns and Toowoomba dioceses were invited to complete a survey by mail. In total, 29 preschool teachers from Catholic schools in Queensland responded to the Pilot Study survey.

A five-point Likert scale was provided for teachers to record their responses to 60 statements. Typically a factor analysis is used to determine the fit of the scales. However, in the Pilot Study the number of respondents was low. A factor analysis was conducted and the results were considered in the redevelopment of the instrument for the main study, but caution was taken in making generalizations from the data.

4.4.2 Beliefs about learning and teaching

Teachers' beliefs about learning and teaching were obtained in the collection of data. The first step in the process for analyzing the data was determining the number of factors from a scree plot in order to make an initial interpretation of the data.

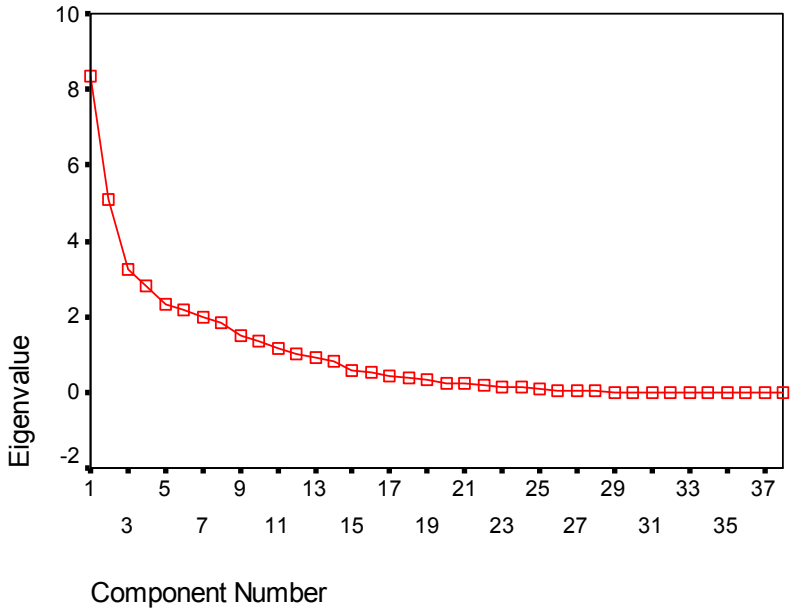

Figure 4.1. Distribution of factors for learning and teaching- Pilot Study.

This scree plot highlighted that on the initial analysis there were 12 factors with eigenvalue greater than 1. The 12 factors accounted for 86% of variance. Using Cattell's (1966) scree test, four factors were chosen from the scree plot as there appears to be a change in the shape of the line as the eigenvalue lessens. This process included the deletion of 11 items that were loading across several scales. A further four factor analysis was conducted and produced four clear factors. The four factors accounted for 67.7% of variance. Table 4.4 shows the four factors together with names for each scale.

Table 4.4

Results of the final factor analysis of learning and teaching items- Pilot Study

Items	1	2	3	4
I observe children to understand their ideas, interests and needs.	.86			
I plan for children to have large blocks of time for play.	.82			
I use observations to gather information about children's needs, interests and abilities.	.76			
The experiences in my classroom are the result of a flexible approach to planning the curriculum.	.68			
Social and effective development is an important aspect of My program.	.66			
Learning involves the learner being actively involved in The construction of knowledge.	.59			
Planning a curriculum that is responsive to children's learning is My priority.	.56			
Teaching in my classroom consists mostly of reading groups, whole Group activities and activities at tables.		.84		
I use observations to inform the program that I plan.		.83		
The experiences in my classroom are the result of a negotiated approach to planning the curriculum.		.83		
I believe that children's holistic development is the priority in My programs.		.80		
Children become competent learners as they are rewarded		.67		
Marks, results and awards are good motivators for learning.			.88	
I devise tests based on content covered to assess children's learning and development.			.74	
Rewards and punishments are incentives for learning.			.68	
Children learn best through rote learning.			.65	
For most of the time, I expect children to work quietly on their own in Small teacher led groups.			.52	
It is my ideas about activities and themes which dictates what happens in my program.				.81
Children learn primarily through information transmitted by teachers.				.60

This factor analysis forced four factors in the extraction of the analyses. These four early childhood learning and teaching beliefs scales were named: child centred

approaches to learning and teaching, early childhood curriculum and teaching, factors that impact on learning, and teacher -directed approaches.

Research Instrument Reliability

Following the scales' identification from the above factor analyses, scale reliability was tested. Reliability refers to the ability of the instrument to consistently measure accurately (Burns, 1997; Neuman, 2000) and reflects the degree to which the scales were internally reliable. The Cronbach Alpha is a statistic used to indicate internal consistency. This statistical measure is based on the average correlation of questions within a scale (DeVellis, 2003). A positive response to one item on the questionnaire should be mirrored by positive responses to other similar items within the scale on the instrument. The guidelines presented in Table 4.5 have been proposed by DeVellis (2003) regarding acceptable reliabilities for research instrument scales:

Table 4.5

DeVellis' Reliability Guidelines (DeVellis, 2003, p.95)

Alpha range	Level of reliability
Below .60	Unacceptable
Between .60 and .65	Undesirable
Between .65 and .70	Minimally acceptable
Between .70 and .80	Respectable
Between .80 and .90	Very good
Much above .90	Consider shortening the scale

Reliability analysis was performed using SPSS Version 11.0. Table 4.6 presents the number of items in each of the four scales and the Cronbach Alpha for each scale.

Table 4.6

Research Instrument Reliability- Pilot Study learning and teaching scales (N=29)

Factors	Number of items	Cronbach alpha
Child-centred approaches to learning & teaching	7	.83
Early childhood curriculum and teaching	5	.85
Factors that impact on learning	5	.75
Teacher -directed approaches	2	.60

The value of Cronbach's alpha for three scales ranged between .75 and .85. Hence, the scales used can be considered reliable. The fourth scale presented in Table 4.6 has only two items and is considered undesirable and perhaps unreliable, according to DeVellis' (2003) guidelines shown in Table 4.5. For the Main Study instrument, more items were written and others rewritten.

4.4.3 Beliefs about Religious Education learning and teaching

The second Phase involved an analysis of teachers' beliefs about Religious Education learning and teaching. The initial exploration of the data involved an interpretation of the scree plot. Figure 4.2 presents the scree plot for the distribution of factors.

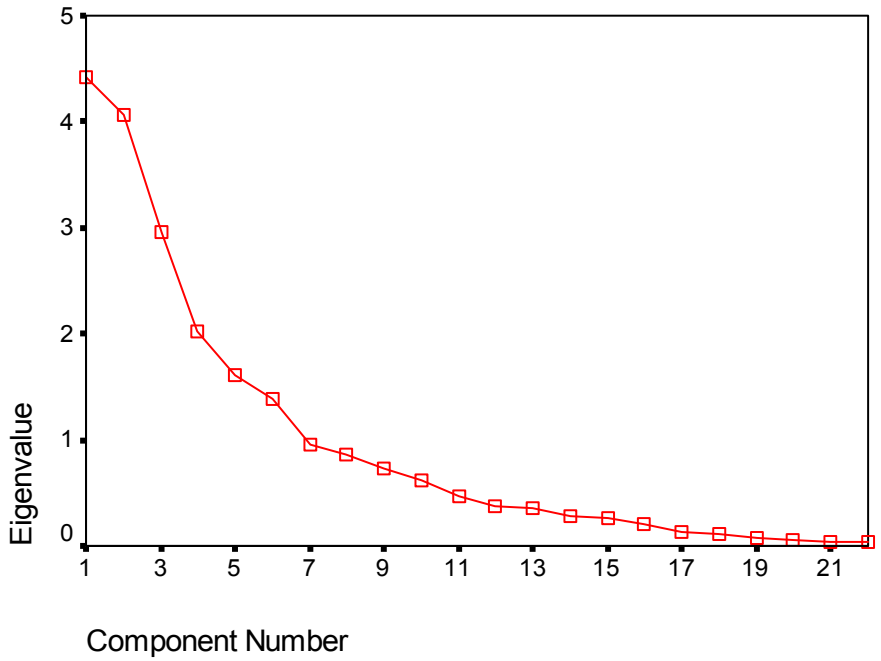

Figure 4.2. Distribution of factors for Religious Education items- Pilot Study

This scree plot highlighted that on this initial analysis there were 6 factors with an eigenvalue greater than one. The six factors accounted for 74% of variance. A second factor analysis was undertaken and a number of items that loaded across factors were deleted. The resultant six components had eigenvalues greater than one. They accounted for 77.6% of variance. A third factor analysis was conducted and extracted three components all with eigenvalues greater than two. The three factors accounted for 55.6% of variance. These three Religious Education scales were named: Broad aims for Religious Education, Religious Education as a curriculum area, and Teachers' role in Religious Education. Table 4.7 illustrates the final factor analysis. In this table, there are four items highlighted in bold and these items will be discussed in the section with implications drawn for the main study.

Table 4.7

Results of final factor analysis of Religious Education- Pilot Study

Items	1	2	3
Religious Education should promote the development of the whole person.	.93		
Religious Education should be inclusive and respectful of difference.	.90		
Religious Education in the preschool is about providing the foundations for later learning.	.89		
Religious Education in my preschool includes children learning that Jesus is their friend.	.70		
Religious Education in the preschool is integrated with the rest of the curriculum.	.70		
Religious Education in the preschool should include teaching children about social justice issues.	**.40**	**-.19**	**.21**
Children in Religious Education should meet some outcomes related to the curriculum area by the end of preschool.	**-.34**	**.33**	**.27**
Religious Education should reflect modern values.	**.30**	**.27**	**-.30**
Religious Education is a planned session that occurs daily or weekly.		.80	
Religious Education is a curriculum area that allows students to learn About concepts associated with Religion.		.72	
Religious Education is a curriculum area with specific content to be covered.		.70	
Religious Education in the preschool includes age-appropriate learning activities.		.67	
Preschool children should be doing similar content to year one in the curriculum area of Religious Education.		.67	
I use Bible stories regularly in Religious Education in the preschool.		.65	
Religious Education in the classroom should teach the rules of the Church.	**-.17**	**.45**	**.44**
I see my role as teacher as an extension of the Church's ministry.			.84
Teaching Religious Education in the classroom is a ministry.			.80
Religious Education in the classroom should reflect the Catholic Church's beliefs and values			.65
Religious Education in my preschool includes daily prayer with the whole group.			.60

The items highlighted in bold text loaded across more than one scale. These items are discussed further in the section in 4.7 where the reformulation of the Pilot Study for the Main Study is outlined. Following the scales' identification from the above factor analyses, scale reliability was tested. Scale reliability was calculated for each scale and presented in Table 4.8.

Table 4.8.

Research instrument reliability- Pilot Study Religious Education learning and teaching scales (N=29)

Factors	Number of items	Cronbach alpha
Broad aims for Religious Education	5	.88
Religious Education as a curriculum area	6	.80
Teachers' role in Religious Education	4	.73

Table 4.8 shows that values range between .73 and .88, and this indicates an acceptable level of reliability. The values of Cronbach's Alphas are considered to be respectable and very good, according to DeVellis' (2003) guidelines shown in Table 4.5 (see p. 88).

4.5 Results from the open ended questions

Qualitative data collected in the Pilot Study was coded using an inductive process for analysis (Richards & Richards, 1994). The main themes that came through the data were consistently literature based. The questions were also used as probes to gather information about concepts to assist in the redevelopment of the instrument for the Main Study.

4.5.1 Results from the Early Childhood open ended question

The responses from the open ended questions were analyzed and the results of this analysis informed the redevelopment of the instrument for the Main Study. The participants' responses to each of the open ended questions were categorised. These categories reflected the predominant themes shared within the responses.

The process involved the researcher recording each response on a card and sorting the cards into like responses. These were analyzed by an inductive process, similar to the grounded theory method as described by Dick (2002). This process was emergent and included: note-taking, coding and categorizing, memoing, sorting, writing and constantly comparing data (Dick, 2002). Richards and Richards (1994) described this process as theory making:

> code, explore, relate, study the text – grows, resulting in little explorations, little tests, little ideas hardly worth calling theories but that need to be hung onto as wholes, to be further data for further study. Together they link together with other theories and make the story, the understanding of the text. The strength of this growing interpretation lies to a considerable extent in the fine grain size and tight inter-knittedness of all these steps (p. 448).

Question one asked the teachers to describe their philosophy of teaching and learning. The responses to question one were overwhelmingly child-centred and constructivist as seen in Table 4.9 below.

Table 4.9

Four categories identified from the responses to Question 1 with the frequency and percentage of responses for each

Theme	Typical response	Frequency of responses	Percentage
Social Constructivist	Children are co-constructors of their own learning and knowledge along with other children and adults in the preschool setting. My role is to facilitate this process through scaffolding of language and learning.	24	45.3
Child- centred	I believe children learn through active play in a flexible environment set up to meet their needs. Children learn through exploration of materials.	23	43.0
No response	Nil	4	7.5
Mixed traditional	I believe that children do learn through play and practical activities, however I believe certain skills need to be taught explicitly.	2	3.8

The responses provided an insight into what constitutes teachers' beliefs about learning and teaching. This information and some of the concepts highlighted by the respondents were incorporated into new items for the Main Study. For example, there were many responses that referred to play as an important planned strategy for learning and teaching. This notion was reflected in items rewritten and developed for use in the Main Study instrument. These items are delineated in the final section of this chapter.

4.5.2 Results from the Religious Education open ended questions

Questions two to nine of the Pilot Study open ended instrument focused on Religious Education in early childhood settings. These questions were included to probe the respondents and to further understand the nature of Religious Education in Catholic early childhood classrooms.

The questions asked respondents to (a) describe their own approach to learning and teaching Religious Education in the early years, (b) describe their understanding of the nature and purpose of Catholic schools, (c) outline their views about children's capability for learning in the area of Religious Education, (d) highlight respondents' personal understanding of faith and faith development and, (e) describe beliefs about learning and the curriculum guidelines and documents that guide the teaching of Religious Education in Catholic early childhood settings. An extensive search of the literature indicated there was a paucity of research in this area. Themes were developed from the data and then a search for common threads and differences was conducted.

Six themes were most prevalent in the open ended responses. The themes were:

- Methods for teaching Religious Education in early childhood settings;
- Appropriate content in the early years;
- Role of Religious Education in a Catholic school;
- Education vs. faith dilemma;
- Views on children;
- Teachers' role in Religious Education.

Table 4.10 presents the 'Methods for teaching Religious Education' theme, together with the typical responses for each category, frequency and percentage.

Table 4.10

Seven categories identified from the responses within the methods for teaching Religious Education theme with the frequency of responses for each

Category	Typical response	Frequency	Percentage
Incidental	RE includes incidental learning, daily discussions about the way we treat others, with love and respect.	15	31.5
Planned	Religion is taught in a fun way based on the preschool units. Time is set aside weekly to do this.	10	19.3
Integrated	Integrated with other learning, capturing teachable moments. Religious Education, like all aspects of children's learning, is integrated throughout the program.	9	17.5
No RE	Whenever it comes up, praying for someone who is ill, justifying actions or what would God want us to do. It is what underpins everything we do- it's a way of life- not just 'God' stuff.	5	11.0
Flexibility	It is part of my whole program. My attitude reflects my Christian beliefs. Some sessions include special lessons about RE content. We use daily prayer, occasional prayer candles. RE units fit into children's interests.	4	7.8
Rituals	We have a celebrative liturgy at the end of each unit.	4	7.3
Hands on	RE content is taught using hands-on materials.	3	6.6

These categories provided an insight into what constituted teachers' beliefs about learning and teaching in the curriculum area of Religious Education. This data was

incorporated into new items for the main study. For example, there were many responses that referred to the implementation or teaching of Religious Education (RE) specifically, there appeared to be variation in the implementation of RE in preschools. These ranged from planned and structured experiences to incidental and unplanned experiences, no separate Religious Education content or time, and being integrated into other daily experiences.

Appropriate content in the early years was the second theme that emerged from the data. Within this theme, three categories emerged from the data.

Table 4.11

Three categories identified from the responses within the 'Appropriate content in the early years' theme with the frequency of responses for each

Category	Typical response	Frequency	Percentage
RE curriculum includes everything	It is part of my whole program. Religious Education like all aspects of learning is integrated throughout the program. As learning episodes are taking place through play or discussion, my role is to facilitate and scaffold this play/learning. Concepts of religion, spirituality and social justice are incorporated	17	44.7
Prayer, liturgies and rituals	RE incorporates prayer time, our leader of the day makes up their own prayer, which we pray as a class and then placed in the prayer box and taken to the Church	16	42.1
Guidelines sufficient content	I use RE guidelines as a guide. I connect the guidelines material to other areas of learning e.g., creation, me and my relationships etc	5	13.2

This information and some of the concepts highlighted by the respondents were incorporated into new items for the Main Study. For example, there were many responses that referred to play as an important strategy for learning and teaching and that play was planned for. This notion was reflected in items rewritten and

developed for use in the Main Study instrument. These items are delineated in the final section of this chapter.

Thirdly, the role of Religious Education in Catholic schools was a theme highlighted in the data. The categories are outlined in Table 4.12. These include: the sense of community, to instill faith or Church Doctrine, to teach morals and ethics, to support families in the shared responsibility of faith development, to develop faith, to proclaim the Gospel and to fulfill the mission of the Church.

Table 4.12

Eight categories identified from the responses within the 'Role of Religious Education in Catholic schools' theme with the frequency of responses for each

Category	Typical response	Freq.	Percentage
Develop faith	To instill Catholic beliefs into a child's life and help them to become the best person he/she can be	12	24.5
Instill faith/ doctrine	To compliment the teaching of the Church; to provide a safe, supportive, challenging environment based on Gospel values, for Catholic and non-Catholic children. To teach the beliefs of the Catholic Church	8	16.3
Morals/ ethics	Christian values are taught as part of a holistic curriculum	8	16.3
Proclaim Gospel	To disseminate the teachings of Jesus to the wider community in an integrated way into all curriculum	7	14.3
Community	To offer the opportunity for children to grow and learn together as Christians in a Christian environment. To provide an inclusive environment that teaches by example. Christ-like behaviour towards self and others. To promote Gospel values and give support to those in the Christian community.	6	12.2
No response	Nil	5	10.3
Support families	Allow children of non-church going families to experience God	2	4.1
Mission	To support social justice through understanding/knowledge of Jesus and Word of God. To minister the word and promote Gospel values through all aspects of curriculum	1	2.1

The responses provided an insight into what constituted teachers' beliefs about the role and purpose of Religious Education in Catholic schools. This data, themes and categories highlighted by the respondents were incorporated into new items for the Main Study (e.g., the notions around the nature and purpose of Catholic schools and the intricate relationship that exists between the development of faith and the teaching of Religious Education). This was reflected in items rewritten and developed for use in the Main Study instrument. These items are delineated in the final section of this chapter.

There was an issue surrounding the types of Religious Education approaches used in Catholic early childhood classrooms. The data presented below in Table 4.13 highlights the dilemma between education and faith. It is clear from this data that many teachers used a mixed approach which includes elements of education and faith. Another interesting fact from this data is the high number of no responses to the questions.

Table 4.13

Four categories identified from the responses within the 'Approaches to teaching Religious Education' theme with the frequency of responses for each

Category	Typical response	Frequency	Percentage
Both	The focus of our program is hopefully balanced between knowledge and faith. Depending upon children's maturity and other external/environmental factors (interest in concept), the purpose of our programs is to raise children's awareness of God's love for them.	9	31.1
Faith	Faith, building on care, love and support of those around us. The focus of my program is one that develops faith, role modeling and Bible stories.	8	27.7
Education	I use the RE guidelines as a guide. I connect the material in the guidelines to other areas of learning. Much of our RE is incidental and comes from the needs and interests of the children. I believe this helps make our program relevant and meaningful to the children. I use the RE guidelines for ideas at times but don't follow a set program.	6	20.6
No response	Nil	6	20.6

These responses provided an insight into what constituted teachers' beliefs about what is the purpose of Religious Education. This information and some of the concepts highlighted by the respondents were incorporated into new items for the Main Study. For example, the issue of Education versus Faith development was explored in both the Main Study instrument and in Phase Two of the study. This

notion was reflected in items rewritten and developed for use in the main study instrument. These items are delineated in the final section of this chapter.

Teachers' understanding about children within the context of Religious Education was the next theme that emerged from the data. There were four categories: children as life long faith learners, children as competent, children as empty, needing to be filled with information, and key attributes of young learners i.e. curiosity, awe and wonder. A large number of teachers appeared to be unsure of how to answer this question.

Table 4.14

Five categories identified from the responses within the 'Teachers' understanding about children within the context of Religious Education' theme with the frequency of responses for each

Category	Typical response	Freq.	%
Competent learners	Children are capable of understanding values and how Jesus wants us to be kind to others	14	37.8
Children as empty	Some children seem very sure, while others have no idea	8	21.7
No response	NIL	8	21.7
Attributes of learners-curiosity	Children are very literal at this age. Like most things, they are curious and question things, often children are learning faith at different levels as some question more than others. Yes, they can see the awe and wonder in most things. The smallest creature is part of creation and we have a responsibility to look after it	6	16.2
Lifelong faith learners	Because I see faith development as a personal journey, I see developing and nurturing a positive self esteem as a beginning of their faith journey Faith is a long term experience. Preschool is the beginnings of this path.	1	2.7

The above table illustrates the nature of responses from the 29 participants in the Pilot Study. The teachers' responses were 2.7% life long faith learners, 37.8% of the responses were children as competent, 21.65% viewed children as empty and 16.2%

identified that a key attribute of children was their curiosity. There were 8 non-responses (21.65%).

The responses provided an insight into what constituted teachers' understanding about the nature of children as learners, specifically attributes of learners. This information and some of the concepts highlighted by the respondents were incorporated into new items for the Main Study. For example, there were many responses that referred to children as life long learners, and that children were competent. This was contrasted with the notion that children were viewed as empty and these elements were explored in both the Main Study and Phase Two of the research. These items are delineated in the final section of this chapter.

The teachers' role in Religious Education was the last theme that emerged from the data. The categories highlighted in Table 4.15 include teachers as lifelong faith learners, and their active and passive roles in teaching Religious Education.

Table 4.15

Three categories identified from the responses within the 'Teachers' role in Religious Education' theme with the frequency of responses for each

Category	Typical response	Frequency	Percentage
Active role in teaching	My role is primarily as facilitator	22	50
Passive role in teaching	Teachers plan appropriate learning experiences that provide children with the opportunity to create, express and communicate their ideas.	15	34.1
Teachers as lifelong faith learners	Faith is a journey that is ongoing, It is their personal beliefs, spiritual awareness, sense of belonging and is linked with life experiences. Faith development is a personal journey of discovery, an awakening of God within and finding a purpose and meaning for our own life.	7	15.9

These responses provided an insight into what constituted teachers' beliefs about their role in the learning and teaching of Religious Education in the early years of schooling. Teachers see themselves as active participants in the learning and teaching of Religious Education and see themselves as lifelong faith learners. An interesting result is the large number of responses that appear to take on a passive role in the learning and teaching of Religious Education in the early years. This notion is further explored in the Main Study as this is a factor that impacts on teachers' beliefs and practice. This data highlighted by the respondents was incorporated into new items for the Main Study, in both the Main Study instrument and questions for the semi-structured interview in Phase Two. For example, there were many responses that referred to their role in teaching for children's learning. These responses highlighted a range of viewpoints and were reflected in items rewritten and developed for use in the Main Study instrument. These items are delineated in the final section of this chapter.

4.6 Validity and reliability issues of the Pilot Study

The issues of validity and reliability of the research for both the quantitative and qualitative aspects of the Pilot Study are addressed in this section. Validity and reliability have been discussed previously in Chapter 3. This section highlights issues that pertain to the conduct of the Pilot Study and illuminates concerns for the main study. In this case, internal and external validity were ensured by the careful design of the instrument. The instrument was grounded in the literature and was given to critical observers to gain their critique and comment. Neuman (2000) defined validity as "no errors internal to the design of the research project" (p. 172). The scales were designed to include a range of similar items within each of the scales to ensure higher levels of internal validity.

External validity means that the results of the study can be generalised to other populations (Neuman, 2000), whereas reliability is concerned with the accuracy of the data. In this case, there was low external validity due to the small numbers of respondents and the results were not generalised to other populations.

Reliability refers to the dependability and trustworthiness of the data, instrument and processes (Gay, Mills & Airasian, 2000). The results of the Cronbach alpha statistic

indicated that the items for each scale exhibited respectable to very good internal consistency, that is, the participants responded consistently to the items delineated for each scale. Of concern was the low number of participants in the pilot study and there representativeness of the total population. For the Main Study processes were established to ensure that the number of respondents was significant and that they were representative of the population of early childhood teachers in Australian Catholic schools (see Section 5.3).

4.7 Reformulation of the instrument for the Main Study

During the redevelopment of the instrument for the Main Study, the results of both the quantitative and qualitative data were considered. For example, some items in the factor analyses were splitting across several scales or the wording was ambiguous. These items are in bold in the following table. A summary of these changes is included in Tables 4.16 and 4.17.

Table 4.16

Summary of changes made to Pilot Study instrument for Main Study: *Learning and teaching items.*

	Deleted from Pilot	Rewritten for Main Study	Added for Main study
Learning	Children should be allowed to move at their own pace in acquiring literacy and numeracy skills. Learning materials should be concrete and relevant to the child's life. Learning can be defined as a process that occurs internally and requires social and cultural interactions.	Learning occurs in internal and personal processes. **Learning is an internal and personal process.**	Children learn best when they are engaged in self-selected experiences.
Teaching	I use learning centres and projects as a teaching strategy. Teaching in my classroom consists mostly of reading groups, whole group activities and activities at tables.	Cognitive development and skills necessary for school are important aspects of my program. **The development of skills necessary for school is the most important aspect of my program.**	I plan my program at the beginning of the year/ term and follow it closely with few changes.

Table 4.16 identified the items that were deleted, rewritten and added to the instrument during the process of redevelopment. The items in bold are the rewritten versions of the deleted items. For example, "Learning can be defined as a process

that occurs internally and requires social and cultural interactions" was identified as a double-barreled question that the researcher saw as ambiguous for the respondents. Similarly, the item "Cognitive development and skills necessary for school are important aspects of my program" was found to be ambiguous and was rewritten as: "The development of skills necessary for school is the most important aspect of my program." Table 4.17 below outlines the changes made to the Religious Education items for the Main Study instrument.

Table 4.17

Summary of changes made to Pilot Study instrument for Main Study: Religious education learning and teaching items.

	Deleted from the Pilot	Replaced by for Main Study	Added to Main Study
Catechetical	Religious Education should include the development of faith as well as knowledge. Teaching Religious Education in the classroom is a ministry. RE in my preschool classroom includes me sharing my faith and my relationship with God. Religious Education in the classroom should reflect the Catholic Church's beliefs and values. Religious Education in my preschool includes children learning that Jesus is their friend.	**Religious Education in my classroom includes me sharing my faith.** **Prayer is an important component of RE.** **RE in my classroom includes me sharing my faith.** **RE classrooms should teach the rules of the Church.** **Children in my RE class often repeat the same selection of prayers.** **My role as teacher of RE is an extension of the Church's mission.**	I believe Catholic schools exist to instill Catholic beliefs into children. Children in my Religious Education class often repeat the same selection of prayers. Teaching Religious Education is the main feature that distinguishes Catholic schools from non-Catholic schools. Building relationships based on care, trust and love is the focus of my Religious Education program.

	Deleted from the Pilot	Replaced by for Main Study	Added to Main Study
Integrated	Religious Education in the preschool should include teaching children about social justice issues. RE in the preschool is integrated into the rest of the curriculum. RE in my preschool classroom includes daily prayer with the whole group.		My Religious Education is developed as I get to know the children in my group. I use concepts such as 'People who help us', lifecycles and caring for the environment as ways for children to make links with Religious Education concepts. Religious Education should foster awe and wonder in children.
Educational	Children in Religious Education should meet some outcomes related to the curriculum by the end of preschool. Religious Education should reflect modern values. Religious Education in the preschool includes age appropriate activities. I use bible stories regularly in Religious Education in the Preschool. Preschool children should be doing similar content to year one in the curriculum area of Religious Education. Religious Education in the preschool is about providing foundations for later learning.	**Children are encouraged to question the rules of the Church.**	Religious Education for the children in my class should include drama and the use of props to tell stories. Religious Education for the children in my class encourages children to ask questions about Religion. My Religious Education program is planned before I commence the school year/term and is followed closely. I use units of work/ syllabus document provided by my diocese as a basis for my planning Religious Education. Religious Education for the children in my class should include the use of concrete materials.

The above table illustrates the items that were deleted, rewritten and added to the instrument during the process of redevelopment. As with the learning and teaching items, those in bold were the rewritten versions of the previous items. For example, “Teaching Religious Education in the classroom is a ministry” was deleted from the instrument. To improve the clarity of the item it was rewritten: “My role as teacher of RE is an extension of the Church’s mission.”

With regard to the qualitative, open-ended questions, changes were made to the number and type of questions included in the Main Study instrument. Table 4.18 summarises these changes.

Table 4.18

Summary of changes made to the open ended questions from the Pilot Study in preparation for the Main Study.

Questions	Deleted	Rewritten
Describe your philosophy of teaching and learning.		√
Describe your typical approach to teaching and learning in Religious Education in the preschool.		√
What do you believe is the nature and purpose of Catholic schools?	√	
What do you believe preschool-aged children are capable of learning about faith?	√	
Which RE concepts are preschool-aged children capable of learning?	√	
Are preschool aged children capable of spiritual awareness?	√	
For you, what does faith development mean?	√	
How do you include aspects of faith development in your preschool?	√	
How would you describe the focus of your RE program?	√	

The above table shows that seven out the nine open ended questions were not included in the Main Study instrument. There are two reasons for this. First, these were included in the Pilot instrument to probe participants and to gain a better understanding of their knowledge and key issues. Secondly, as the Main Study instrument was redeveloped, a more focused set of questions was needed to answer the research questions. Three open-ended questions were included in the Main Study instrument:

1. Describe your beliefs about children's learning.

2. Describe your beliefs about teaching young children.

3. Describe the typical approach to teaching RE in your classroom.

4.8 Adjustments for the Main Study

A number of difficulties were encountered in the conduct of the Pilot Study that had direct implications for the conduct of the Main Study. These included (1) item clarity, (2) the format of the survey, (3) the response rate, and (4) widening the range of potential participants. These issues are examined in this section.

Item clarity was the first issue for consideration for the Main Study instrument. It was also noted on the return of the surveys that there were some items that were ambiguous. As highlighted earlier, some of these items were deleted and others were re-written to enhance their clarity. The revised instrument was checked by both early childhood and Religious Education academics and professionals before being sent out to teachers for Phase One of the Main Study.

Survey format was the second issue highlighted in the conduct of the Pilot Study. Fowler and Dillman (2000) emphasised the importance of layout and presentation of the survey. The design of the survey should be clear, sequential, easy to follow, attractively spaced, and the tasks should be easy to complete. Although the Pilot Study had most of these features, some refinements were made to the presentation of the survey for the Main Study. In particular, the design of the instrument was examined. The amount of detail required by the respondents about their demographic information, the number of open-ended responses and the types of questions was also revised.

The response rate was the third issue with direct implications for the Main Study. For the Pilot Study, the response rate was approximately 32%. The small number of responses presented challenges in the analysis of the quantitative data.

A process was established by the researcher to facilitate greater returns and tracking of the surveys for the Main Study. A spreadsheet containing details of all schools including communication and records of correspondence was maintained. As suggested by Fowler and Dillman (2000), 10 days after the surveys were sent reminder letters were sent to schools emphasizing the significance of the study. Ten days later, reminder emails were sent to schools of non-respondents, again emphasizing the significance of the study and asking for support.

Widening the range of potential participants was the fourth issue with implications for the Main Study. Due to the relatively small number of Catholic teachers teaching in the preschool year in Queensland, a decision was made to extend the research to Kindergarten teachers in New South Wales and Tasmania, Prep teachers in Victoria, Reception Teachers in South Australia and Preprimary teachers in Western Australia for the Main Study. This was done to ascertain the beliefs of early childhood teachers in Catholic schools across Australia. As a result, the instrument required some changes to terminology used so that some terms specific to the Queensland context could be applied generically to other Australian states.

The final version of the *Early Childhood Teachers' Beliefs about Learning, Teaching and Religious Education* instrument can be viewed in Appendix B. Responses provided in the open ended questions of the Pilot Study survey, lead to further questions being developed for Phase Two of the Main Study. For example, teachers were probed about their understanding of Catholic schooling, beliefs about learning, teaching and Religious Education. A further discussion of these issues can be found in Chapter 6.

4.9 Chapter Summary

The purpose of this chapter was to describe the process undertaken to develop and validate the instrument used in the first Phase of the study. Specifically, the chapter provided (a) a justification for the development of an instrument to measure teachers' beliefs, (b) an outline of the processes undertaken to develop and validate the instrument, (c) a discussion of the results of the piloting of the instrument, and (d) a discussion of the implications of the results for the instrument used in the Main Study. The following chapter contains the results of Phase One of the Main Study.

CHAPTER FIVE

RESULTS FROM THE MAIN STUDY: QUANTITATIVE DATA

5.1 Introduction

This chapter reports the results from the Early Childhood Teachers' Beliefs about Learning, Teaching and Religious Education (ECTBLTRE) instrument administered to a large sample of Australian early childhood teachers. In particular, the instrument aimed to answer Research Questions one, two, four, five and six which pertain to teachers' beliefs about learning, teaching and Religious Education. This instrument collected a range of variable factors that impact on teachers' beliefs and practice. Data were collected from 540 early childhood teachers from six states of Australia. Details about the specific nature of the sample are provided in Chapter Three of the thesis (see Section 3.3.5).

The research design of this study involved the use of scales that measured teachers' beliefs about early childhood learning and teaching, and Religious Education learning and teaching. It is important to highlight the variations that exist state by state of the names of early childhood settings and entry requirements. These were discussed in Chapter One, section 1.3.1. Specifically, with regard to the teaching of Religious Education, each diocese in Australia has developed their own approach to teaching Religious Education, with some dioceses combining resources as discussed in Chapter One, section 1.3.3.

Apart from the introduction, there are eight main sections in this chapter. Section 5.2 states the research questions addressed. Section 5.3 provides descriptive data about the sample. Sections 5.4, 5.5, 5.6 and 5.7 report the analysis of early childhood teachers' beliefs about learning and teaching and Religious Education respectively. Section 5.8 presents the correlation analysis between teachers' beliefs about learning and teaching and their beliefs about learning and teaching religious education. Section 5.9 outlines the processes undertaken to select participants for Phase Two of the study.

5.2 Research Questions addressed in this chapter

Seven research questions were addressed by the quantitative data, namely:

1. What are early childhood teachers' beliefs about children's learning?
2. What are early childhood teachers' beliefs about teaching?
3. To what extent do teachers' beliefs about teaching and learning differ according to state, age, gender, qualification and number of years teaching?
4. What are early childhood teachers' beliefs about children's learning in Religious Education?
5. What are early childhood teachers' beliefs about teaching Religious Education?
6. To what extent do teachers' beliefs about teaching and learning Religious Education differ according to curriculum document type, age, gender, qualification and number of years teaching?
7. To what extent do teachers' beliefs about teaching and learning relate to their beliefs about teaching and learning Religious Education?

All questions were only partially addressed by the ECTBLTRE instrument. The second Phase of data collection provided a rich, detailed narrative description of the four teachers to give more detailed insights into teachers' beliefs and the impact on classroom practices. This data is presented in Chapter 6.

It is important to note that, because of the general nature of Question 3 and Question 6 a number of sub-questions had to be formulated. The specific sub-questions were:

- 3(a) To what extent do teachers' beliefs about learning and teaching differ in each State?
- 3(b) To what extent do teachers' beliefs about learning and teaching differ according to their age?
- 3(c) To what extent do male and female teachers' beliefs about learning and teaching differ?
- 3(d) To what extent do teachers' beliefs about learning and teaching differ according to their qualifications?

- 3(e) To what extent do teachers' beliefs about learning and teaching differ for number of years teaching?
- 6(a) To what extent do teachers' beliefs about learning and teaching Religious Education differ according to each curriculum document type?
- 6(b) To what extent do teachers' beliefs about learning and teaching Religious Education differ according to age?
- 6(c) To what extent do male and female teachers' beliefs about learning and teaching Religious Education differ?
- 6(d) To what extent do teachers' beliefs about learning and teaching Religious Education differ according to their qualifications?
- 6(e) To what extent do teachers' beliefs about learning and teaching Religious Education differ for number of years teaching?

With regard to the sub-questions for Religious Education, no analysis for difference between states was conducted. This was due to the variations that exist at the Diocese level and this was not easily categorised into state by state. There were significant variations within states (See Chapter One, Table 1.2).

Prior to specifically answering each of the research questions the next section presents specific data relating to the demographics of the sample that participated in this study.

5.3 Sample information

Teachers were classified according to the state and diocese in which they taught, their age, number of years of teaching and number of years of teaching Religious Education. In summary, as highlighted in Table 3.2, New South Wales had the largest number of respondents, and South Australia had the smallest number. Queensland's response rate represented 57% of the total population of early education teachers for that state, New South Wales' response rate represented 45% of the total population, Victoria's response rate represented 39% of the total population, Western Australia's response rate represented 47% of the total population, South Australia's response rate represented 53% of the total population and Tasmania's response rate represented 80% of the total population. These rates

were indicative of a sample that was representative of the population of each state. Consequently, the spread of the sample mirrored the spread of the total population for each state. The responses from each diocese also varied. Table 5.1 illustrates the number of respondents from each diocese.

Table 5.1

Breakdown of respondents by diocese frequency and percentage (n=540)

State/Diocese	Frequency	Percentage	State/ Diocese	Frequency	Percentage
Queensland (Total)	**100**	**18.5**	**South Australia (Total)**	**7**	**1.3**
Brisbane	50	9.3	Port Pirie	7	1.3
Rockhampton	17	3.1			
Toowoomba	11	2.0			
Townsville	14	2.6			
Cairns	8	1.5			
New South Wales (Total)	**196**	**36.4**	**Western Australia (Total)**	**61**	**11.4**
Lismore	13	2.4	Broome	1	0.2
Canberra Goulburn	28	5.2	Bunbury	20	3.7
Maitland	21	3.9	Geraldton	11	2.0
Parramatta	28	5.2	Perth	29	5.4
Sydney	36	6.7			
Bathurst	9	1.7			
Wilcannia Forbes	7	1.3			
Armidale	3	0.6			
Wagga Wagga	4	0.7			
Wollongong	29	5.4			
Broken Bay	18	3.3			
Victoria (Total)	**152**	**28.1**	**Tasmania (Total)**	**21**	**3.9**
Sale	17	3.1	Hobart	21	3.9
Sandhurst	16	3.0			
Melbourne	107	19.8			
Ballarat	12	2.2			

The Archdiocese of Melbourne had the largest percentage of respondents, which represented 19.8% of the population. By contrast, Sale Diocese was 3% of the entire

study but 17 out of 32 possible respondents completed the instrument and more than 50% of the population was represented. The respondents to the instrument have been previously described by state and diocese: 475 or 88% of the respondents were female and 43 or 8% were male. Twenty two (4%) did not provide information about their gender. Data about the age of respondents was also collected. Five age groups were used. Table 5.2 shows the frequency of respondents for each age group of the respondents.

Table 5.2

Frequency of respondents for each age group (n=540)

Age group	Frequency	Percentage
18-25	89	16.5
26-35	142	26.3
36-45	138	25.5
46-55	131	24.3
>55	28	5.2
Missing	12	2.2
Total	540	100.0

The majority of teachers in the study were aged between 26 and 55. The largest group of teachers were between the ages of 26 and 35 with 26.9%, and the smallest group were older than 55 with 5.3% of teachers in this cohort. Teachers were asked to record their highest level of tertiary education and qualification. Table 5.3 shows a range of qualifications associated with the levels of qualification.

Table 5.3

Frequency of respondents for each qualification type (n=540)

Qualification	Frequency	Percentage
Diploma	65	12.0
Bachelor	333	61.7
Grad Dip	41	7.6
Grad Cert	23	4.3
Masters	12	2.2
Missing	66	12.2
Total	540	100.0

The most common qualification held by teachers in this study was a Bachelor's degree, with 61.7% of teachers with this qualification. Twelve percent of the teachers held a Diploma level qualification; equivalent to a three year qualification. Approximately 13% of teachers had completed postgraduate qualifications. Table 5.4 shows the years of teaching experience by teachers and also the number of years teaching Religious Education.

Table 5.4

Frequency of respondents for number of years teaching and teaching Religious Education (n=540)

Number of years	Teaching		Teaching Religious Education	
	Freq.	%	Freq.	%
0-2	67	12.4	90	16.7
3-5	74	13.7	94	17.4
6-10	88	16.3	106	19.6
11-20	123	22.8	140	25.9
>20	109	20.2	97	18.0
Missing	77	14.6	12	2.4
Total	540	100.0	540	100.0

The most frequent number of years of teaching was 11-20 years for both teaching and teaching religious education groups. The smallest cohort in number of years teaching was 0-2 years with 12.4%. This was also the smallest cohort for the number of years teaching Religious Education with 16.7%. The majority of teachers had spent most of their years teaching in Catholic schools and therefore, teaching Religious Education. A large number of teachers, (14.6%) in the number of years teaching cohort and 2.4% in the number of years teaching Religious Education cohort, did not provide information about the extent of their teaching experiences.

5.4 Analysis of early childhood teacher beliefs about learning and teaching

This section reports on the investigation of questions 1 and 2 concerning early childhood teachers' beliefs about learning and teaching. Data was collected from 540 early childhood teachers in Australian Catholic schools. These teachers were teaching Preschool (QLD), Kindergarten (NSW and TAS), Prep (VIC), Preprimary (WA), Reception (SA) and the children in their classes were aged between four and six years. Each teacher responded to the ECTBLTRE instrument developed earlier in the research.

5.4.1 Beliefs about learning and teaching

Question 1: What are early childhood teachers' beliefs about children's learning?

Question 2: What are early childhood teachers' beliefs about teaching?

To investigate these questions, four steps were undertaken to analyze the quantitative data. Firstly, a factor analysis was used to reduce the number of variables to ascertain some clear factors for further analysis. Secondly, the reliability of the scales was calculated and Cronbach Alphas were used to ascertain the internal reliability of each scale. Thirdly, the level of agreement between scales was determined by computing the mean scores and range of responses for each scale. Fourthly, an analysis of the demographic data using an Analysis of Variance (ANOVA) was selected to compare group means. These analyses are reported in the subsequent sections of the chapter.

5.4.2 Factor analysis of early childhood teachers' beliefs about learning and teaching

A factor analysis was conducted on the 36 items associated with early childhood learning and teaching beliefs. The process included reducing the data by conducting a series of factor analyses and reducing the data by eliminating weak or items that loaded across a number of factors. Figure 5.1 illustrates the final scree plot for this factor analysis for the learning and teaching items.

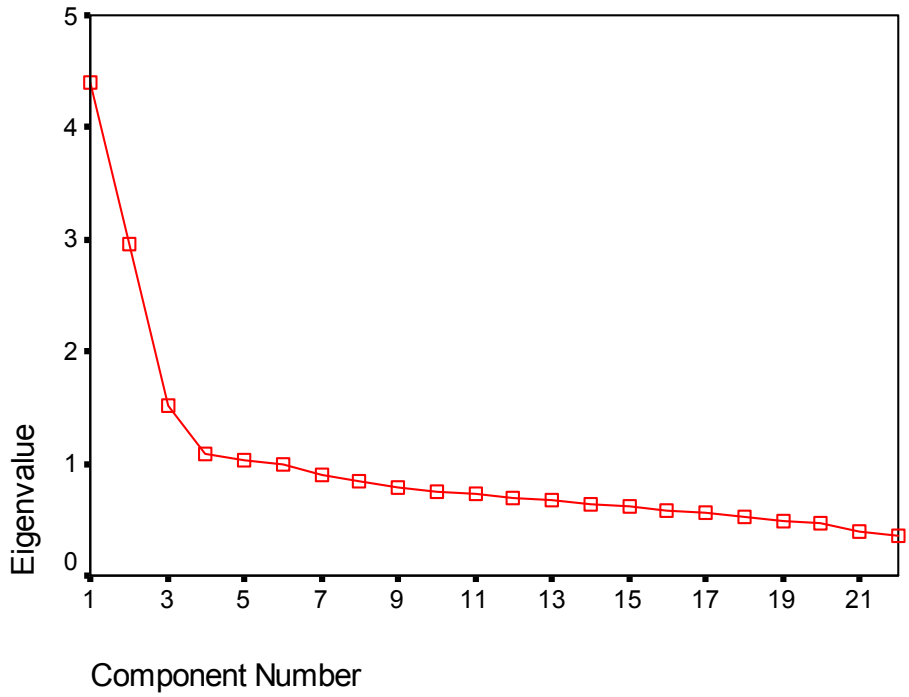

Figure 5.1. *Distribution of factors for learning and teaching- Main Study*

The scree plot illustrated that on the final analysis there were five factors with an eigenvalue greater than 1. This information, coupled with the results of the factor analysis (Table 5.6), supported the further examination of the five scales identified. Table 5.5 shows the data reduced to five clear early childhood learning and teaching beliefs scales.

Table 5.5

Results of the final factor analysis varimax rotation for the learning and teaching items (n=540)

Items	Emergent	Skill dev.	Active learning	Trad. factors	Learning contexts
I use observations of children to gather information about children's needs, interests and abilities	.72				
My role is to support, guide and enhance children's learning	.72				
Planning a curriculum that is responsive to children's learning is my focus	.59				
I believe that children's holistic development is the priority of my program	.59				
The experiences in my classroom are the result of a flexible approach to planning the curriculum	.54				
The development of skills necessary for school is the most important aspect of my program		.64			
Children learn best through rote learning		.64			
In the classroom I see my role as a director of traffic		.63			
My role as teacher is one who enforces the rules		.57			
I plan for children to have large blocks of time for play			.83		
Play is my preferred teaching strategy			.79		
Children learn best when they are engaged in self selected experiences			.58		
Rewards and punishments are incentives for learning				.84	
Marks, results and awards are good motivators for learning				.74	
Learning is influenced by language					.69
I see my role as focusing on children's learning					.64
Learning occurs within social and cultural contexts					.63

The scales were named:

1. Emergent approaches to learning and teaching: This scale included beliefs about learning and teaching that are responsive to children's needs, interests and abilities. It has a degree of flexibility and supports the holistic development of children.
2. Skill development: This scale included traditional approaches to learning and teaching, including rote learning.
3. Active learning: This scale included teachers' beliefs about play and children's engagement in self selected experiences for large blocks of time.
4. Traditional factors impacting on learning: This scale included teachers' beliefs focused on preparation for schooling, and extrinsic factors motivating learners.
5. Contexts for learning: This scale focused on teachers' beliefs about issues that impact on learners.

Following the scales' identification from the above factor analyses, reliability analyses were utilised to determine the degree to which the scales were internally reliable. The results are presented in the following section.

5.4.3 Internal reliability of scales

In order to measure internal consistency for each scale, and to determine the reliability of each scale, Cronbach alphas were calculated. Table 5.6 summarises the results of this analysis.

Table 5.6

Internal consistency (Alpha reliability) for the main study research instrument: Learning and teaching scales (n=540)

Scale	Description of the Scale	No of items	Cronbach alpha
1. Active learning	Active play and engagement in self selected experiences support learning	3	.70
2. Emergent approaches to learning and teaching	Beliefs that are responsive to children's needs, interests and abilities	5	.68
3. Traditional factors impacting on learning	Preparation for school and extrinsic motivation impact on learning	2	.67
4. Skill development	Traditional approaches to teaching and learning	4	.62
5. Contexts for learning	Contextual factors impact on learning	3	.49

Table 5.6 presents the results of the reliability of the Main Study research instrument, learning and teaching scales. Table 4.5 (Chapter 4, Section 4.4.2) presented the DeVellis (2003) guidelines for scale acceptability. The value of Cronbach's alpha for the active learning scale on this instrument was .70, hence the scale used can be considered reliable. The emergent approaches and traditional factors scales are >.65 and <.70; according to DeVellis' (2003) guidelines these scales are minimally acceptable. The skill development scale was < .65 and is considered undesirable according to the DeVellis (2003) guidelines. The fifth scale, contexts for learning, had a Cronbach alpha less than 0.5 and therefore was not considered a reliable scale.

Descriptive Statistics for Teaching and Learning Scales

In order to determine the level of agreement to the scales mean level of agreement for each scale were calculated. Each participant was allocated a score for level of agreement for each scale. This was calculated by adding up the level of agreement for each item in the scale and dividing it by the number of items for each scale. Table 5.7 shows the number of cases, the range of responses, minimums and maximums on the five-point Likert scale, the mean response for each scale together with its standard deviation.

Table 5.7

Level of agreement in five scales: Teachers' beliefs about learning and teaching (n=540)

Scale	N	Range	Min.	Max.	Mean	Std. Deviation
Emergent approaches to learning and teaching	540	1.80	3.20	5.00	4.39	.38
Traditional factors impacting on learning	540	3.00	2.00	5.00	4.18	.52
Active learning	540	4.00	1.00	5.00	3.33	.82
Contexts for learning	540	4.00	1.00	5.00	3.02	.85
Skill development	540	4.00	1.00	5.00	2.57	.67

Trends in the above table indicate that most teachers' beliefs were strongly aligned with both an emergent approach to learning and teaching in early childhood classrooms and also with a more traditional, skill development focus. These differences are explored further in this chapter when the results of the MANOVA are presented. Active learning and the role of play in early childhood classrooms was a

generally consistent belief of all teachers. Similarly, the contexts for learning were highly regarded by the respondents.

5.5 Analysis of beliefs about teaching and learning data

This section reports the investigation of Question 3 concerning the effect of state, gender, age, qualification and number of years teaching experience on teachers' beliefs about learning and teaching.

The data analysis procedure used to compare means was multivariate analysis of variance (MANOVA). In general, the significance level adopted for all inferential tests of significance was .05. If the overall multivariate test was significant, univariate F tests were used for individual scales. This approach reduced the overall Type 1 error rate that would have been associated with performing a series of univariate tests.

Where appropriate, effect size is reported. Effect size refers to the extent in which groups in the population differ on the dependent variable (Cohen, 1988). The difference between the groups mean as a fraction of the total sum of squares was used as a convenient index. Cohen (1988) classified .01 as a small effect, .06 as a medium effect and .14 as a large effect.

5.5.1 Teachers' beliefs about learning and teaching in different states.

3(a) To what extent do teachers' beliefs about learning and teaching differ in each State?

A one-way between groups multivariate analysis of variance was performed to investigate state differences on the teaching and learning scales. The five dependent variables were the five scales for teaching and learning. The independent variables were the six States: QLD, NSW, VIC, SA, WA and TAS. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance – covariance matrices, and mutlicollinearity, with no serious violations noted. This process was repeated for subsequent tests presented in this section. There was a significant difference between states noted on the combined dependent variables: [F (5, 443) = 6.64, p = .000]; Wilks' Lambda = .70; effect size = .07. Because the State type was significant in the multivariate analysis (p<.001), univariate F tests were interpreted. When the results were considered

separately, the only differences to reach significance, using a Bonferroni adjusted alpha level of .008, were emergent [*F* (5, 443) = 3.84, *p* = .002] with effect size .04, active learning [*F* (5, 443) = 27.92, *p* = .000] with an effect size of .24 and traditional factors [*F* (5, 443) = 3.33, *p* = .006] with an effect size of .04.

Post hoc comparisons using the Tukey HSD test indicated significant differences for the emergent scale between QLD (*M* = 4.5, *SD* = .38) and NSW (*M* = 4.33, *SD* = .*34*); and, QLD and TAS (*M* = 4.17, *SD* = .33). For the active learning scale significant differences occurred between QLD (*M* = 3.99, *SD* = 0.70) and NSW (*M* = 3.07, *SD* = 0.65); QLD and VIC (*M* = 3.02, *SD* = .69); QLD and TAS (*M* = 3.15 *SD* = .74); NSW (*M* = 3.07, *SD* = 0.65) and SA (*M* = 3.86, *SD* = .42); NSW and WA (*M* = 3.71, *SD* = .92); VIC and WA; VIC and SA; and TAS and WA. For the traditional factors scale significant difference occurred between QLD (*M* = 3.00, *SD* = .92) and SA (*M* = 2.07, *SD* = .53); NSW (*M* = 3.08, *SD* = .80) and SA; and, VIC (*M* = 3.06, *SD* = .80) and SA. Figure 5.2 illustrates the sample scale mean for each state for each scale.

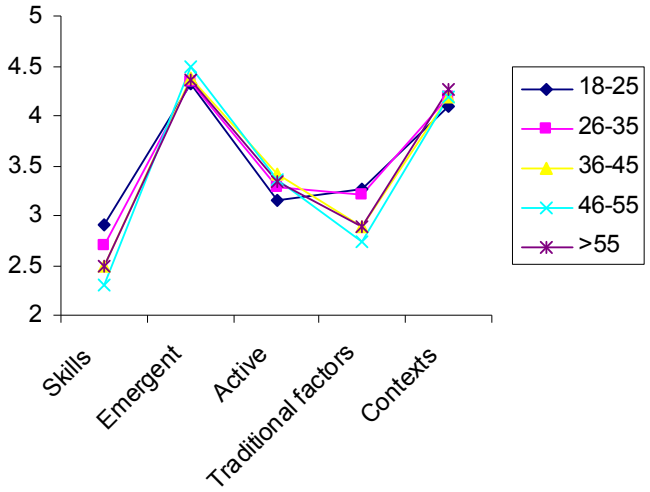

Figure 5.2. *Mean scores for each state for five scales concerned with teachers' beliefs about learning and teaching*

Figure 5.2 indicates that teachers from Queensland had consistently higher scores on the emergent and active learning scales. There was consistency in the scores on the skills, emergent and contexts for learning scales.

5.5.2 Teachers' beliefs about learning and teaching according to age groups.

3(b) To what extent do teachers' beliefs about learning and teaching differ according to their age?

Five age categories were delineated in the data, namely 18-25 years, 26-35 years, 36-45 years, 46-55 years and over 55 years. To investigate the relationship between age groups and the five teaching and learning scales a one way multivariate analysis was performed. The five dependent variables were the five scales and the five independent variables were the five different age groups. There was a significant difference between age groups noted on the combined dependent variables: F (4, 437) = 3.16, p = .000; Wilks' Lambda = .87; effect size = .04. Because age was significant in the multivariate analysis (p<.001), univariate F tests were interpreted. When the results were considered separately, the only difference to reach significance, using a Bonferroni adjusted alpha level of .01, was the skill development scale [F (4, 437) = 9.74, p = .000] with an effect size of .08, the emergent approach to teaching scale [F (4,437) = 2.84, p = .02] with an effect size of .03, and, the traditional factors impacting on learning scale [F (4, 437) = 7.48, p = .000] with an effect size of .06.

Post hoc comparisons using the Tukey HSD test indicated significant differences for the skill development scale between 18-25 year group (M = 2.9, SD = 0.63) and two groups, 36-45 year group (M =2.6, SD = 0.65) and 46-55 year group (M = 2.5, SD = 0.69). There was also significance between the 26-35 year group and 46-55 year group; and, 36-45 year group and 46-55 year group (M = 2.5, SD = 0.69). For the emergent teaching scale, there was significance between 26-35 year group (M = 4.3, SD = 0.39) and 46-55 year group (M = 4.5, SD = 0.40). For the traditional factors scale, the Tukey HSD test indicated significant differences between the 18-25 year group (M = 3.28, SD = 0.78) and 36-45 (M = 2.9, SD = 0.85) and 46-55 (M = 2.75, SD = 0.85); and, 26-35 year group (M = 3.21, SD = 0.72) and 36-45 and 46-55 year group. Figure 5.3 illustrates the sample scale mean for each age group for each scale.

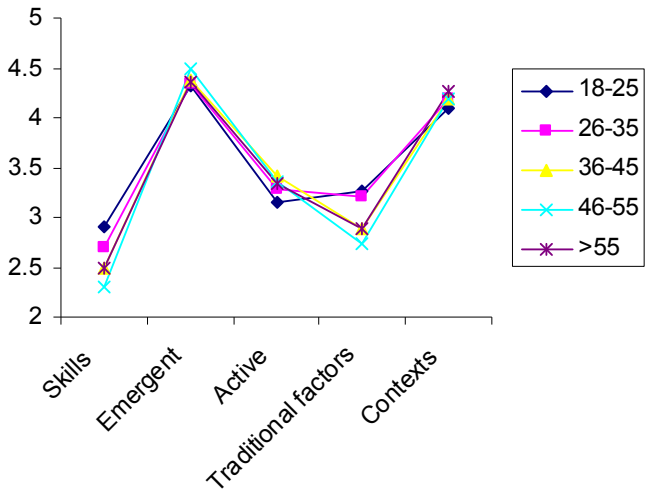

Figure 5.3. *Mean scores for each age group for five scales concerned with teachers' beliefs about learning and teaching*

The sample means for each age group are graphed in Figure 5.3 and indicate that teachers' age had significant differences on three scales: skill development, emergent teaching and traditional factors. There were similarities in scores on the other two scales.

5.5.3 *Teachers' beliefs about teaching and learning in different genders*.

3(c) To what extent do teachers' beliefs about teaching and learning differ for males and females?

To investigate gender differences, a one-way between groups multivariate analysis of variance was performed on the teaching and learning scales. The five dependent variables were the five scales for teaching and learning. The independent variables were male and female. There was a significant difference between genders: [*F* (2, 431) = 3.70, *p* = .000]; Wilks' Lambda = .92; effect size = .025. When the results for the tests were considered separately, the only differences to reach statistical significance, using a Bonferroni adjusted alpha level of .025, were emergent teaching approaches [*F* (2, 431) = 7.69, *p* = .001] with an effect size of .035, active approach to learning [*F* (2, 431) = 7.40, *p* = .001] with an effect size of .033 and traditional factors impacting on learning [*F* (2, 431) = .056, *p* = .003] with an effect size of .026. An inspection of the mean factor scores indicated that males (*M* = 4.17, *SD* = .50) had a lower level of agreement on the emergent approach to teaching scale than females (*M* = 4.40, *SD* = .36). On the active learning scale, males (*M* = 2.87, *SD* =

.70) had a lower level of agreement than females (*M* = 3.36, *SD* = .82) scored higher than males, and males (*M* = 3.32, *SD* = .67) had a higher level of agreement on the traditional factors than females (*M* = 3.00, *SD* = .84). Figure 5.4 illustrates the sample scale mean for each age group for each scale.

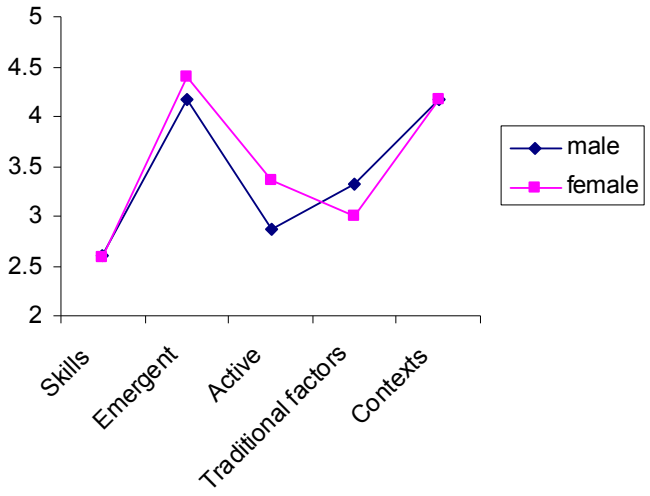

Figure 5.4. *Mean scores for male and female for five scales concerned with teachers' beliefs about learning and teaching*

Consideration and caution needs to be given to the above findings, due to the possible impact of a gender imbalance in the sample. This sample was predominantly female with 475 female and 43 male teachers. Interestingly, both groups had similar scores on two scales, skill development and contexts for learning. The figure above suggests that females teachers are more likely to have an emergent approach to teaching and incorporate play and active learning strategies than there male counterparts. This is an aspect worthy of further investigation.

5.5.4 Teachers' beliefs about learning and teaching by different qualifications.

3(d) To what extent do teachers' beliefs about learning and teaching differ for differing qualifications?

To investigate the effect of different qualifications on the five scales identified for teaching and learning a multi-variance analysis of variance was performed with the dependent variable being qualifications. The five dependent variables were the five scales for teaching and learning. The independent variables were Diploma, Bachelor, Graduate Diploma, Graduate Certificate and Masters. There was no significant

difference between qualifications: [*F* (4, 394) = 1.39, *p* = *.128]*; Wilks' Lambda = .93; effect size =.017. No further tests on qualification were conducted.

5.5.5 Teachers' beliefs about learning and teaching for number of years teaching.

3(e) To what extent do teachers' beliefs about learning and teaching differ for number of years teaching?

A one-way between groups multivariate analysis of variance was performed to investigate number of years teaching differences on the learning and teaching scales. The five dependent variables were the five scales for learning and teaching. The independent variables were 0-2 years, 3-5 years, 6-10 years, 11-20 years and >20 years teaching experience. There was a significant difference in the multivariate analysis (p<.001), and thus univariate *F* tests were interpreted. When the results were considered separately, the only differences to reach significance, using a Bonferroni adjusted alpha level of .008, were skill development [*F* (5, 384) = 3.149, *p* = .008] with an effect size of .04, and traditional factors impacting on learning [*F* (5, 384) = 4.910, *p* = .000] with an effect size of .06.

Post hoc comparisons using the Tukey HSD test indicated significant differences for the skill development scale between 3-5 year group (*M* = 2.85, *SD* = 0.70); and 11-20 year group (*M* = 2.47, *SD* = 0.73) and >20 year group (*M* = 2.49, *SD* = 0.73). For the traditional factors scale, the Tukey HSD test indicated significant differences between the 0-2 year group (*M* = 3.25, *SD* = 0.74) and >20 year group (*M* = 2.69, *SD* = 0.93); 3-5 year group (*M* = 3.22, *SD* = 0.78) and the >20 year group. Figure 5.5 illustrates the sample scale mean for each age group for each scale.

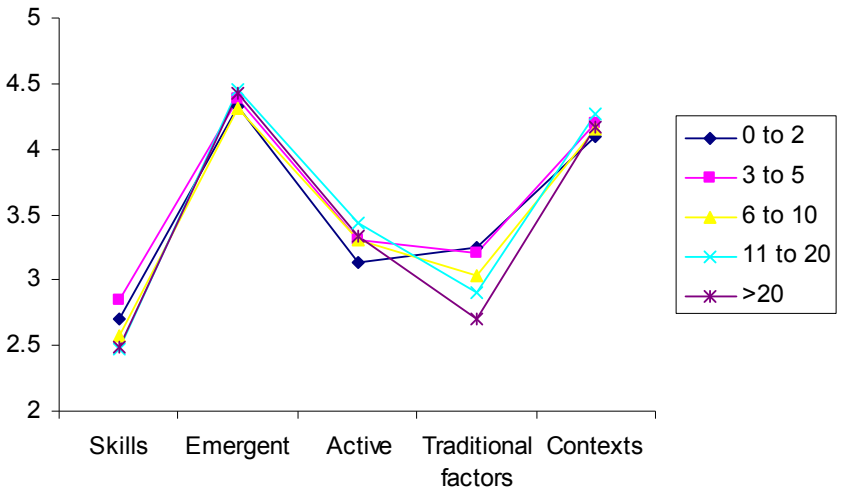

Figure 5.5. *Mean scores for each number of years teaching group for five scales concerned with teachers' beliefs about learning and teaching*

The results graphed in Figure 5.5 show that teachers with more teaching experience (11-20, >20 years) were more likely to believe in skill development and traditional factors as learning and teaching approaches than those with less teaching experiences (0-2, 3-5 yrs). An interesting anomaly exists in the results presented above, teachers with 11-20 years and >20 years experience also have strong beliefs about emergent approaches to teaching and active learning (play).

5.5.6 Summary of teachers' beliefs about learning and teaching

With regard to beliefs about learning and teaching practices that are responsive to children's needs, interests and abilities, exhibiting a degree of flexibility and supporting holistic development of children (emergent scale), Queensland teachers were significantly more in agreement with this scale than their counterparts in New South Wales and Tasmania. Queensland teachers also exhibited stronger agreement about play and children, engagement in self-selected experiences for large blocks of time than teachers in New South Wales, Victoria and Tasmania; and teachers in South Australia and Western Australia were significantly stronger in agreement than the teachers in New South Wales. With regard to the gender effect on the emergent scale there was a marginal difference between the mean scores of males and females. Female teachers were more likely to have an emergent approach than their male counterparts. There was no statistical significance on the effect of qualifications on the emergent scale. With regard to the age of participants, there were no

differences between age groups on the emergent scale. Similarly, this was also the case in the number of years teaching groups.

With regard to skill development, the scale highlighting traditional approaches to learning and teaching, including rote learning; Queensland, New South Wales and Victoria were in stronger agreement than teachers in South Australia. It was conjectured that the difference in results could reflect the differing views of teaching and learning across the states. For example, Queensland has a clearly articulated philosophy supporting a play-based approach to teaching and learning and this is evidenced by curriculum documents (e.g., Queensland Preschool Curriculum Guidelines and the Early Years Guidelines), pre-service teacher training and professional development. By comparison, the emphasis of teaching and learning in other states predominantly reflects more formalised approaches to learning and teaching (e.g., classroom structure, reporting and accountability requirements). The age groups of the teachers highlighted significant differences on the skill development scale. For example, younger teachers were more likely to be more traditional on this scale than their colleagues from the 46-55 and >55 year age groups. It was conjectured that older teachers have had varied life experiences and this may contribute to a less traditional view of teaching and learning, a view that is more responsive to children's learning and development. With regard to gender and qualification type there was no significant difference between groups on the skill development scale.

With regard to the number of years teaching effect on the skill development scale, there was a significant difference between 3-5 and 11-20 years teaching experience. These results were similar to the age effect on the skill development scale. Teachers with less experience were more likely to be more traditional than older teachers. It was conjectured that although older teachers may have had more 'traditional' teacher training, the length of experience has been in a context of change and they may be more experienced in the 'art' of teaching. Teachers with less experience may revert to practices that were more traditional during their early career as they develop their own style and respond to various demands such as perceived expectations of others on their teaching.

With regard to Active Learning, the scale highlighted beliefs about play, having access to time for play in the day and children having opportunities to self select activities and experiences. There were significant differences between states. These

results were related to the results on the emergent scale. There was a difference between Queensland and New South Wales, Tasmania and Victoria. As per the skill development and emergent scale, it was conjectured that the differences may be related to the curriculum documents in each state, in particular, Queensland's explicit statements about play and active learning. The effect of gender on the active learning scale was similar to the results on the emergent scale. Female teachers were more likely to be in agreement with the active learning scale than there male counterparts. There was no significant difference between age, qualification or number of years teaching groups on the active learning scale.

With regard to Traditional Factors, the scale was concerned with incentives for learning that were more 'traditional'. These included incentives for learning such as the use of external rewards and punishments and marks and results as motivating factors. There was a significant difference between states on the traditional factors scale. Specifically, there was a difference between Queensland and South Australia; South Australia and New South Wales and Victoria. Teachers in South Australia were less likely to support the traditional factors scale than there counterparts in other states. The age effect highlighted that there was differences between age groups on this scale. For example, older teachers (46-55, >55) were less likely to support the scale than younger counterparts (18-25, 26-35). This result was similar in the number of years teaching effect. Teachers with more experience were less likely to support this scale than teachers with fewer years teaching experience. These trends reflect the results on the skill development scale. Male teachers scored marginally higher on this scale when compared to females. There was no significant difference on the traditional factors scale for qualification.

With regard to contexts for learning, this scale recognised that learning occurs within social, language and cultural contexts. It also included the role of the adult in the learning process. There were no significant differences between state, age, gender, qualification and number of years teaching groups on this scale.

5.6 Beliefs about Religious Education learning and teaching

This section reports on the investigation of questions 4 and 5 concerning early childhood teachers' beliefs about learning and teaching in the curriculum area of Religious Education. Data was collected from 540 early childhood teachers in

Australian Catholic schools. These teachers were teaching Preschool (QLD), Kindergarten (NSW and TAS), Prep (VIC), Preprimary (WA) and Reception (SA) and the children in their classes were aged between four and six years. Each teacher responded to the ECBLTRE instrument developed specifically for this research.

5.6.1 Analysis of early childhood teachers' beliefs about Religious Education learning and teaching

Question 4: What are early childhood teachers' beliefs about children's learning in Religious Education?

Question 5: What are early childhood teachers' beliefs about teaching in Religious Education?

To investigate these questions, the same steps described in section 5.5 were used to analyze the quantitative data. These steps entailed firstly, conducting a factor analysis to identify scales. This was followed by the calculation of Cronbach alphas to determine the internal reliability of the scales. The level of agreement between scales was determined by computing the mean scores and range of responses for each scale. The final analysis of the demographic data was undertaken using an Analysis of Variance (ANOVA) to compare group means. These analyses are reported in the subsequent sections of the chapter.

5.6.2 Factor analysis of early childhood teachers' beliefs about Religious Education learning and teaching

A factor analysis was conducted on the 29 items associated with early childhood teachers' beliefs about learning and teaching in Religious Education. Figure 5.6 illustrates the final scree plot for this factor analysis of the Religious Education learning and teaching items.

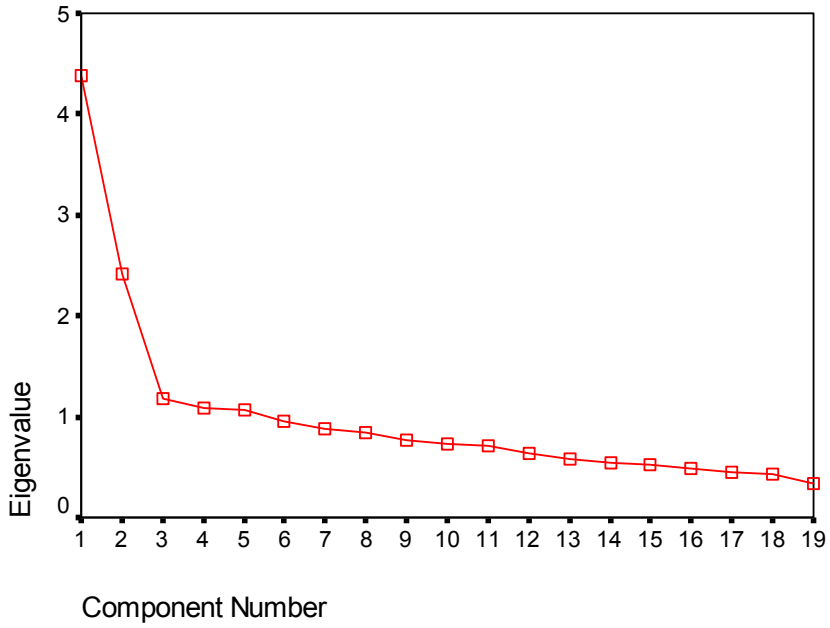

Figure 5.6. Distribution of factors for Religious Education learning and teaching scales.

The above scree plot illustrated that there are four clear factors with an eigenvalue >1. The results of this analysis are presented in Table 5.8.

Table 5.8

Results of the final factor analysis varimax rotation for the Religious Education learning and teaching items- Main Study (n=540)

Items	Integrated approach to RE	RE as a ministry	RE plan. & teach	RE as a KLA
RE for the children in my class should include the Use of concrete materials	.83			
RE for the children in my class should include drama and the use of props to tell stories	.79			
I use concepts such as People who help us, lifecycles and caring for the environment as ways for children to make links with RE concepts	.59			
RE should foster awe and wonder in children	.53			
My RE program is developed as I get to know the children in my group	.52			
RE in my classroom includes me sharing my faith		.70		
I see my role as teacher as an extension of the church's ministry		.70		
RE is a key component of Catholic schooling		.58		
RE in my class includes age-appropriate learning activities		.58		
RE should promote the development of the whole person		.54		
My RE program is planned before I commence the school year/term and is followed closely			.69	
Religious Education is a planned session that occurs daily/ weekly			.66	
I use units of work/ syllabus documents provided by my diocese as a basis for planning RE			.65	
I believe Catholic schools exist to instill Catholic beliefs into children			.58	
RE is a curriculum area that allows students to learn about concepts associated with religion				.74
RE in the early years is about providing the foundations for later learning				.67

The scales were named:

1. Integrated approach to RE: This scale focused on Religious Education integrated into everyday classroom practice with familiar materials and content.

2. RE as a ministry: This scale focused on the teacher's role as an extension of the Church's ministry, and the development of faith.

3. RE planning and teaching: This scale focused on syllabus use in planning, frequency of Religious Education lessons and other planning considerations.

4. RE as a KLA: This scale focused on Religious Education as a Key Learning Area. In the early years, the focus was on providing foundations for later learning.

Following the scales' identification from the above factor analyses, scale reliability was tested. Scale reliability was calculated for each scale and is presented below in the following section.

5.6.3 Internal reliability of scales

In order to measure the internal consistency for each scale and to determine the reliability of each scale Cronbach alphas were calculated. The four scales associated with early childhood teachers' beliefs about Religious Education learning and teaching were tested for reliability and the alpha for each scale is included in Table 5.9.

Table 5.9

Internal consistency (Alpha reliability) for the main study research instrument: Religious Education learning and teaching scales (n=540)

Scale	Description of the scale	No. items	Cronbach alpha
Integrated approach to RE	Focused on RE integrated into everyday classroom activities	5	.73
RE as a ministry	Teachers' role as an extension of Church's ministry and development of faith	5	.72
RE planning and teaching	Focused on syllabus use in planning, frequency of RE lessons and other planning considerations	4	.64
RE as a KLA	Religious Education viewed as a Key Learning Area of curriculum. In the early years the focus was on providing foundations for later learning	2	.57

Table 5.9 presents the results of the reliability of the Religious Education learning and teaching scales. Table 4.5 (Chapter 4, Section 4.4.2) presented the DeVellis (2003) guidelines for scale acceptability. These guidelines were used to assess the reliability of these scales. According to DeVellis (2003) scales with a Cronbach alpha with a value of .7 or above indicates an acceptable level of reliability. The value of Cronbach alphas for the integrated approach and ministry scales were >.7, hence the scales used can be considered reliable. DeVellis (2003) suggested that Cronbach alphas < .65 are undesirable. Both the RE planning and the RE as a KLA are therefore, undesirable according to these guidelines. They were retained in further analyses even though the scale may be considered unreliable. A forced factor solution may have given a better result.

Descriptive statistics on Religious Education Scales

In order to determine the level of agreement to the scales mean level of agreement for each scale were calculated. The same process as described in Section 5.5.3 was used to calculate the level of agreement between scales. Briefly, each participant was allocated a mean score, these were then added together and divided by the number of items for each scale. Table 5.10 shows the number of cases, the range of responses, and the minimum and maximum response on the five-point Likert scale, the mean response and the standard deviation.

Table 5.10

Level of agreement in four scales: Teachers' beliefs about Religious Education learning and teaching (n=540)

Scale	N	Range	Min.	Max.	Mean	Std. Deviation
Ministry	540	2.40	2.60	5.00	4.42	.44
Integrated	540	2.20	2.80	5.00	4.27	.48
RE planning and teaching	540	3.00	2.00	5.00	3.76	.58
RE as a KLA	540	4.00	1.00	5.00	3.76	.68

Trends in the above table indicate that most teachers' beliefs were aligned with integrated approaches to learning and teaching Religious Education in early childhood classrooms. There were a number of teachers whose beliefs about learning and teaching in Religious Education were associated with the wider ministry of the Church and the vocation that teachers have in Catholic schools. Most teachers were also in agreement with the nature of Religious Education as a curriculum area with content, assessment and reporting components.

This section reports the investigation of Question 6 concerning the effect of curriculum documentation type, gender, age, qualification and number of years teaching on teachers' beliefs about Religious Education learning and teaching.

The data analysis procedure used to compare means was a multivariate analysis of variance (MANOVA), the same process described in Section 5.5. In this case, the significance level adopted for all inferential tests of significance was .05. In the event that the multivariate test was significant, univariate *F* tests were used for individual scales. This approach reduced the overall Type 1 error rate that would have been associated with performing a series of univariate tests.

Effect size is reported in most cases using the classification guidelines developed by Cohen (1988) That is a small effect, .06 as medium effect and .14 as a large effect.

5.7.1 Teachers' beliefs about Religious Education learning and teaching

6(a) To what extent do teachers' beliefs about learning and teaching Religious Education differ by Religious Education curriculum document classification?

As there is no whole state approach to Religious Education, curriculum document for each participating diocese were analyzed. From this analysis there appeared to be four different categories, namely faith based, praxis model, educational model and integrated approaches. (See Table 1.2 in Chapter 1, Section 1.3.3) A one-way between groups multivariate analysis of variance was performed to investigate differences of Religious Education curriculum document type on the Religious Education learning and teaching scales. The four independent variables were the four scales for Religious Education learning and teaching. The independent variables were the four classification types of Religious Education curriculum documents. These included: Faith based documents, Praxis model, Educational model, and an integrated approach. There was a significant difference between curriculum document types noted on the combined dependent variables: [F (4, 475) = 5.748, p = .000]; Wilks' Lambda = .78; effect size = .05. Because the curriculum document type was significant in the multivariate analysis ($p<.001$), univariate F tests were interpreted. When the results were considered separately, the differences to reach significance, using a Bonferroni adjusted alpha level of .008, were RE as a ministry [F

(4, 389) = 7.15, *p* = .000], and RE planning and teaching [*F* (4, 388) = 15.74, *p* = .000].

Post hoc comparisons using the Tukey HSD test indicated that there were no significant differences for the RE as a ministry scale. There were significant differences for the RE planning and teaching between Faith (*M* = 3.89, *SD* = .58) and Educational (*M* = 3.24, *SD* = .79); Praxis (*M* = 3.78, *SD* = .57) and Educational; Education and Integrated (*M* = 3.87, *SD* = .62). Figure 5. 7 illustrates the sample scale mean for each state for each scale.

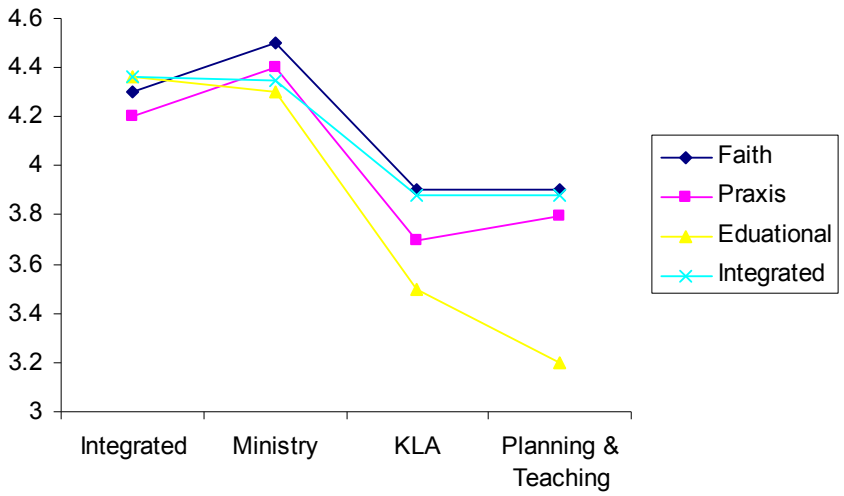

Figure 5.7. *Mean scores for each curriculum type group for four scales concerned with teachers' beliefs about Religious Education learning and teaching*

As illustrated in Figure 5.7, there were similarities in the mean scores for the integrated scale for the curriculum groups. These results highlighted a high level of agreement for this group. This may be indicative of the impact of curriculum documents on teachers' classroom practice. There may be a link between document type and beliefs about the learning and teaching of Religious Education. There was a significant difference between groups on the RE planning and teaching scale.

5.7.2 Teachers' beliefs about Religious Education learning and teaching with respect to age.

6(b) To what extent do teachers' beliefs about Religious Education learning and teaching differ for each age group?

Five age categories were delineated in the data, namely 18-25 years, 26-35 years, 36-45 years, 46-55 years and over 55 years. To investigate the relationship between age and the Religious Education learning and teaching scales, a one way multivariate analysis was performed. The four dependent variables were the four scales and the five independent variables were the five different age groups. There was a significant difference between age groups noted on the combined dependent variables: [F (4, 474) = 4.335, p = .000]; Wilks' Lambda = .87; effect size = .04. Because age was significant in the multivariate analysis (p<.001), univariate F tests were interpreted. When the results were considered separately, the only difference to reach significance, using a Bonferroni adjusted alpha level of .01, was the integrated approach to RE scale [F (4, 474) = 4.26, p = .002] with an effect size of .04, the ministry approach to RE scale [F (4,474) = 7.26, p = .000] with an effect size of .06, and, the RE planning and teaching scale [F (4, 474) = 3.91, p = .004] with an effect size of .03.

Post hoc comparisons using the Tukey HSD test indicated significant differences for the integrated scale between 18-25 year group (M = 4.1, SD=0.45) and three groups, 36-45 year group (M =4.3, SD = 0.46), 46-55 year group (M = 4.3, SD = 0.47) and >55 year group (M = 4.4, SD = 0.47). For the ministry scale significant difference occurred between 18-25 year group (M = 4.29, SD = 0.45) and the same three groups as above, 36-45 year group (M = 4.47, SD = 0.43), 46-55 year group (M = 4.5, SD = 0.39), and >55 year group (M = 4.6, SD = 0.41). There was also a significant difference between the 26-35 year group (M = 4.3, SD = 0.46) and 46-55 year group. For the Religious Education planning and teaching scale significant difference occurred between 18-25 year group (M =4.0, SD = 0.62) and 46-55 year group (M = 3.6, SD = 0.73).

Figure 5.8 illustrates the sample scale mean for each age group for each scale.

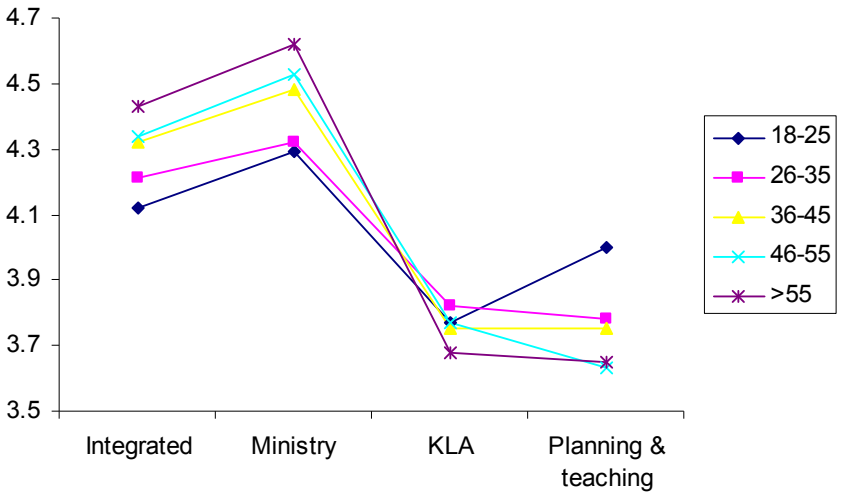

Figure 5.8. *Mean scores for each age group for four scales concerned with teachers' beliefs about Religious Education learning and teaching*

The results graphed in Figure 5.8 show that teachers' age effects their beliefs about Religious Education learning and teaching. RE as a KLA was the only scale that had consistent or similar mean scores.

5.7.3 Teachers' beliefs about Religious Education learning and teaching in different genders.

6(c) To what extent do teachers' beliefs about Religious Education learning and teaching differ for males and females?

A one-way between groups multivariate analysis of variance was performed to investigate gender differences on the Religious Education learning and teaching scales. The four dependent variables were the four scales for learning and teaching Religious Education. The independent variables were male and female. There was no significant difference between genders: [F (2, 463) = 1.46, p = *.169]*; Wilks' Lambda = .98; effect size = .013. Figure 5.9 illustrates the sample scale mean for each age group for each scale.

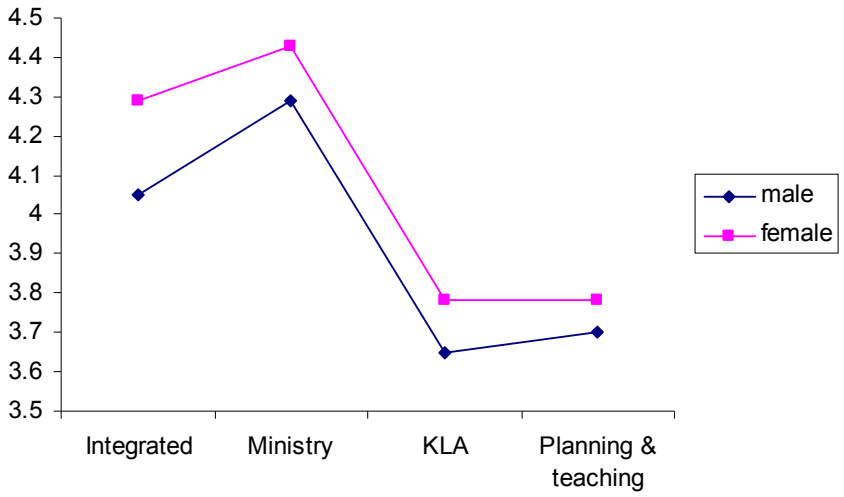

Figure 5.9. *Mean scores for each gender group for four scales concerned with teachers' beliefs about Religious Education learning and teaching*

Figure 5.9 highlights that female teachers' mean scores for the Religious Education learning and teaching scales were consistently higher than their male counterparts.

5.7.4 Teachers' beliefs about Religious Education learning and teaching in different qualifications.

6(d) To what extent do teachers' beliefs about Religious Education learning and teaching differ for differing qualifications?

To investigate the effect of different qualifications on the four scales identified for learning and teaching a multi-variance analysis of variance was performed with the dependent variable being qualifications. There was a significant difference between qualifications for the four scales: F [(4, 421) = 1.72, p = .037]; Wilks' Lambda = .94; effect size = .016.

A one-way between groups multivariate analysis of variance was performed to investigate qualification differences on the teaching and learning scales. The four dependent variables were the four scales for learning and teaching Religious Education. The independent variables were Diploma, Bachelor, Graduate Diploma, Graduate Certificate and Masters. Because qualification was significant in the multivariate analysis ($p<.001$), univariate F tests were interpreted. When the results were considered separately, the only difference to reach significance, using a

Bonferroni adjusted alpha level of .01, was the ministry scale F (4, 421) = 3.65, p = .006] with an effect size of .03.

Post hoc comparisons using the Tukey HSD test indicated significant differences for the ministry scale between Bachelor (M = 4.38, SD = 0.44) and Masters (M = 4.78, SD = 0.26); and, Graduate Certificate (M = 4.31, SD = 0.49) and Masters. Figure 5.10 illustrates the sample scale mean for each qualification group for each scale.

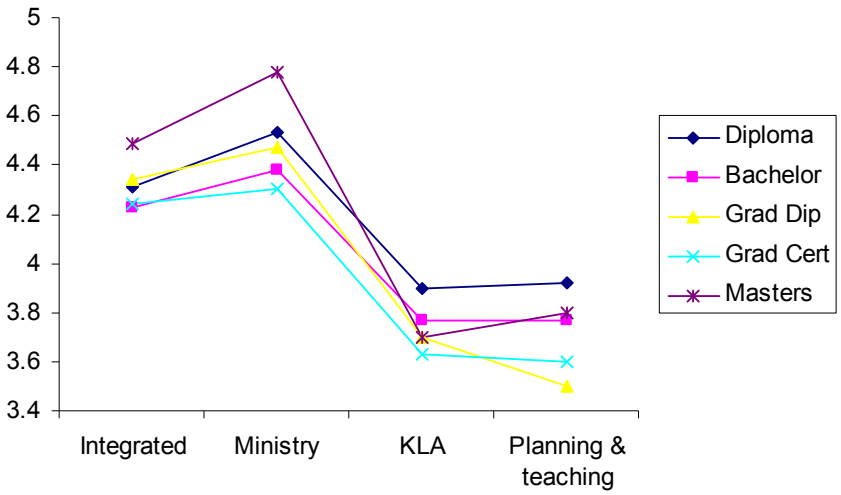

Figure 5.10. *Mean scores for each qualification group for four scales concerned with teachers' beliefs about Religious Education learning and teaching*

The results graphed in Figure 5.10 shows that teachers' qualification type effects their beliefs about Religious Education learning and teaching. Three scales highlighted similarities in the mean scores of teachers. Integrated, RE as a KLA and RE planning and teaching were the scales that had consistent or similar mean scores between the groups. All four of the scales had high levels of agreement with the mean scores above 3.5.

5.7.5 Teachers' beliefs about Religious Education learning and teaching for number of years teaching.

6(e) To what extent do teachers' beliefs about Religious Education learning and teaching differ for number of years teaching?

A one-way between groups multivariate analysis of variance was performed to investigate number of years teaching differences on the teaching and learning scales. The four dependent variables were the four scales for Religious Education learning and teaching. The independent variables were 0-2 years, 3-5 years, 6-10 years, 11-20 years and >20 years teaching experience. There was a significant difference between years on teaching experience noted on the combined dependent variables: [*F* (5,417) = 2.93, *p* = .000]; Wilks' Lambda = .87; effect size = .03. Because the number of years teaching type was significant in the multivariate analysis (p<.001), univariate *F* tests were interpreted. When the results were considered separately, the only difference to reach significance, using a Bonferroni adjusted alpha level of .008, were integrated approach to RE [*F* (5, 417) = 5.065, *p* = .000] with an effect size of .06. Post hoc comparisons using the Tukey HSD test indicated significant differences for the integrated scale between 0-2 years teaching (*M* = 4.14, *SD* = 0.45) and >20 years teaching (*M* = 4.37, *SD* = 0.46). Figure 5.11 illustrates the sample scale mean for each age group for each scale.

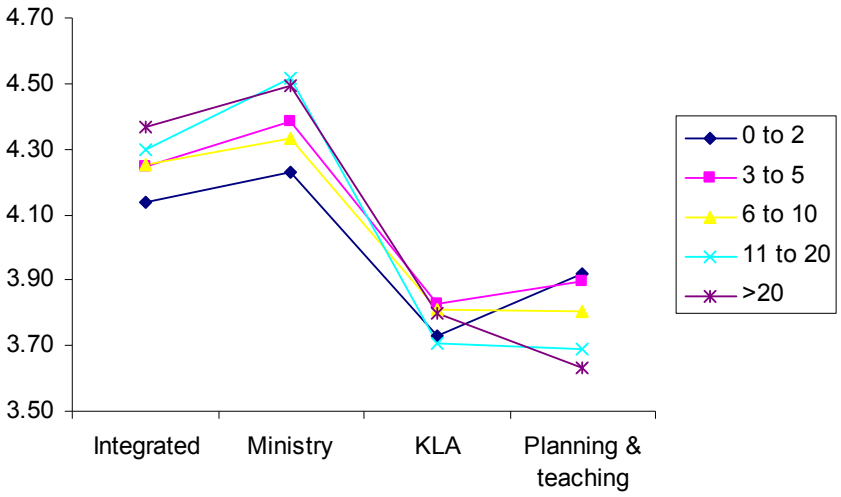

Figure 5.11. *Mean scores for each number of years teaching group for four scales concerned with teachers' beliefs about Religious Education learning and teaching*

The results presented in Figure 5.11 highlight teachers' number of years teaching effects on beliefs about Religious Education learning and teaching. Religious Education as a Key Learning Area was the only scale that had consistently similar mean scores.

5.7.6 Summary of teachers' beliefs about Religious Education learning and teaching

With regard to beliefs about Religious Education learning and teaching practices that are integrated within everyday learning and teaching in the early years' classroom, there were significant differences found. There was a significant difference on this scale in the age groups effect. Older teachers were more likely to use a more integrated approach to Religious Education learning and teaching than their younger counterparts. The results for the number of years teaching was similar to the age effect. Female teachers were also more likely use an integrated approach to Religious Education than male counterparts. This is an aspect worthy of further research. With regard to level of qualification and curriculum document type, there were no significant differences on this scale.

With regard to Religious Education learning and teaching practice that was ministry focused, there was significant differences found. This scale included items related to teachers' perceived role as of teacher that included sharing personal faith, acting as an extension of the Church's ministry. The age of teachers had an impact on the level of agreement on the scale. The older the age group of teachers, the more in agreement they were with viewing their role as a ministry. It was conjectured that this may be related to their life experiences of being a Catholic. Interestingly, on the qualification effect on the ministry scale, the higher the level of qualification (e.g., Masters) the more likely the teachers were to agree with the scale. There was a significant difference between Masters level qualifications and Bachelor and Graduate Certificates. There were no significant differences on the Religious Education curriculum document types, number of years teaching and gender groups on the Ministry scale.

With regard to Religious Education learning and teaching practice that is related to Religious Education as a Key Learning Area, there were no significant differences found. This scale showed no significant differences on Religious Education curriculum document type, age group, gender, level of qualification and number of years teaching experience effects.

With regard to Religious Education learning and teaching, there was evidence of significant difference between groups. This scale focused on elements of planning and teaching which included issues related to planning, syllabus and teaching of Religious Education in the early years classroom. There was a significant difference

between groups in the Religious Education curriculum document groups. For example, teachers with a curriculum document from an educational perspective were less likely to agree with this scale when compared with those from Praxis or Faith based documents. This aspect of the findings requires further investigation to understand the phenomena. A significant difference was found in the age groups effect. The younger the teacher (18-25), the more likely they were to agree with the planning and teaching scale. There was no significant difference on the Religious Education planning and teaching scale with regard to gender, level of qualification and number of years teaching.

5.8 Associations between early childhood and Religious Education learning and teaching beliefs

Question 7: To what extent do teachers' beliefs about learning and teaching relate to their beliefs about learning and teaching Religious Education?

To investigate this question, Pearson correlation analyses were performed to predict the effects on independent variables. The independent variables were the nine scales, both five early childhood and four Religious Education. Significance at the .3 level was used by the researcher to determine a significant relationship.

For the purpose of this study, it was decided to only consider correlations greater than or equal to .3 as being educationally significant. All correlations that were educationally significant were also statistically significant. Given the size of the sample (N = 540) educational significance was a much more stringent measure of significance. Correlations of this order account for at least ten percent of the variability. The results of this analysis are reported in Table 5.11 and in the subsequent section.

Table 5.11

Results of Pearson correlation analysis, relationships between five learning and teaching scales and four Religious Education learning and teaching scales

Pearson correlation	Ministry	Integrated	Plan. & Teach	KLA

Sig, 2 tailed				
Skill development	-.01	-.07	.28	**.32***
Emergent	**.42***	**.51***	.19	.02
Active learning	.01	.29	-.05	-.29
Traditional factors	-.05	-.13	.17	.23
Contexts for learning	.29	**.30***	.18	.06

* denotes >.3 educational significance

Four of the 20 correlations were statistically and educationally significant. These were:

- Emergent and ministry
- Skill development and RE as a KLA
- Integrated approach to RE and emergent
- Integrated approach to RE and contexts for learning

First, there was a relationship between the emergent and ministry scales. The data suggested that the more emergent an early childhood teachers' beliefs were, the more likely they were to have a belief about Religious Education that was focused on ministry or pastoral care. Second, the results highlighted a relationship between the skill development and RE as a KLA scales. This appears to be a logical relationship as both scales are concerned with learning and content. Third and similarly, a relationship between the integrated approach to RE scale and emergent scale was logical. Both scales are concerned with approaches to teaching that have high levels of flexibility and are responsive to children's needs, interests and abilities. The integrated approach to Religious Education also draws on children's real life experiences and prior learning and is consistent with emergent beliefs about learning and teaching. Fourth, the relationship highlighted was between the integrated approach to Religious Education and contexts for learning scales. The contexts for learning scale, is concerned with factors that impact on learning. The relationship with the integrated approach to Religious Education highlights the way in which Religious Education content is integrated into children's real life experiences to support their meaning making.

These four relationships that were educationally and statistically significant were not predicted by the researcher. Educational significance of .3 was determined as an appropriate level for examining those relationships between factors with statistical significance. The relationships highlight an interesting relationship that exists between early childhood and Religious Education beliefs about learning and teaching.

5.9 Selection of participants for Phase Two

During the data analysis process, each participant was given a factor score for each of the eight factors. Four factors were used as the criteria for selecting four teachers for the second Phase of the study. These four factors were selected as they were beliefs that were related to teaching, rather that beliefs that focused on learning. These four factors were:

- Traditional and emergent in the early childhood teaching and learning area;
- Integrated and ministry in the Religious Education.

For each scale, each participant was allocated a Z score. This process involved the transformation of data onto a normal distribution table by applying an equation (Howell, 2002). For the purpose of this calculation, probable limits were set at 75%. The probability that a teacher's score fell between the ranges higher than the cut off meant the higher ranked cases were selected to investigate further (Howell, 2002). In this research, the selection of participants was limited to those who indicated willingness to participate in Phase Two. Four cases were selected out of a possible 118 participants. There were no male subjects who indicated willingness to participate in Phase Two. For each of the possible 118 participants, z scores were calculated. The scores ranged between -3 and +3. The researcher then identified four possible participants, from each of the four categories with high z scores. Contact was made with them to ascertain their willingness to be part of Phase Two and availability during the data collection period. Table 5.12 summarizes the four cases that met the criteria for involvement.

Table 5.12

Summary of four cases selected for Phase Two of the study

Participant code	Traditional	Emergent	Integrated	Ministry
10	**3.00**	1.00	**3.00**	1.00
89	1.00	**3.00**	**3.00**	1.00
104	**3.00**	1.00	1.00	**3.00**
134	1.00	**3.00**	1.00	**3.00**

There were four teacher types to be studied:

- High traditional and high integrated
- High emergent and high integrated
- High traditional and high ministry
- High emergent and high ministry.

These four case studies are presented in the following chapter.

5.10 Chapter summary

The purpose of this chapter was to report the analyses of the quantitative data collected in this study. Specifically, this final section summarises the key findings of the various analyses utilised for each research questions. A full discussion of these findings is found in Chapter Seven of this thesis.

The data analysis procedures used to compare group means was an analysis of variance (ANOVA). The significance level adopted for all inferential tests of significance was .05. In the case where the univariate tests were significant, F tests were used for individual scales. The effect size is reported, where appropriate. Post-Hoc tests were also conducted where appropriate and the results were presented.

For the purpose of this study, the effect size highlighted the extent to which the groups in the population differ on the dependent variable. The difference between the

group means as a fraction of the full sample standard deviation was used as an index. Data was collected from 540 early childhood teachers in six Australian states.

Seven research questions and sub-questions are answered in part by the quantitative data presented in this chapter. These questions include:

1. What are early childhood teachers' beliefs about children's learning?
2. What are early childhood teachers' beliefs about teaching?

With regard to Questions 1 and 2, the analyses of the data highlighted the existence of five scales related to early childhood teachers' beliefs about learning and teaching. These were emergent, skill development, active learning, traditional factors and contexts for learning. The analyses in Section 5.4 highlighted the strong support for teachers' beliefs related to emergent approaches to teaching. Interestingly, there was also strong support for the development of skills and more traditional approaches to learning and teaching.

3. To what extent do teachers' beliefs about teaching and learning differ according to state, age, gender, qualification and number of years teaching?

   (a) To what extent do teachers' beliefs about learning and teaching differ in each State?

There was a difference in results on the two scales. It was conjectured that differing views of learning and teaching exist across the states. For example, Queensland has a clearly articulated philosophy supporting a play-based approach to teaching and learning. This was evident in curriculum documents, pre-service teacher training and professional development. By comparison, the emphasis on teaching and learning in the other states was on the Key Learning Areas and more formalised teaching and learning methods. This aspect requires further investigation.

   (b) To what extent do teachers' beliefs about learning and teaching differ according to their age?

It was conjectured that the difference in results between age groups reflected the differing views of learning and teaching between these groups. The age groups have had different life and work experiences. There may also be variations in teacher training and personal educational experiences. This aspect requires further investigation.

(c) To what extent do male and female teachers' beliefs about learning and teaching differ?

With regard to this question, there was a gender imbalance in the sample. Both gender groups had similar scores on two scales, skill development and contexts for learning. The results also indicated that female teachers are more likely to have an emergent approach to teaching and incorporate play and active learning strategies than there male counterparts. This is an aspect worthy of further investigation.

(d) To what extent do teacher's beliefs about learning and teaching differ according to their qualifications?

There was no significant difference between qualifications on teachers' beliefs about learning and teaching.

(e) To what extent do teachers' beliefs about learning and teaching differ for number of years teaching?

There were differences on the scales between the numbers of years teaching groups. The results suggested that teachers with more teaching experience were more likely to believe in skill development and traditional factors as learning and teaching approaches than those with less teaching experiences. It was conjectured that the difference in results may reflect the differing views of learning and teaching between the number of years teaching groups. These groups may differ due to variations in teacher training, classroom teaching experience and recent professional development. This aspect requires further investigation.

4. What are early childhood teachers' beliefs about children's learning in Religious Education?
5. What are early childhood teachers' beliefs about teaching Religious Education?

With regard to questions 4 and 5, the results in Section 5.6 indicated that most teachers' beliefs were aligned with integrated approaches to learning and teaching Religious Education in early childhood classrooms. Similarly, there was strong support for the ministry scale. Teachers' beliefs were both associated with integrating children's real life experiences into approaches to learning and teaching in Religious Education that were associated with the wider ministry of the Church and the vocation that teachers have in Catholic schools.

6. To what extent do teachers' beliefs about teaching and learning Religious Education differ according to curriculum document type, age, gender, qualification and number of years teaching?

   (a) To what extent do teachers' beliefs about learning and teaching Religious Education differ with curriculum document type?

There was a significant difference between curriculum document types. The differences may be related to the variations that exist between Diocesan guidelines for Religious Education in each Australian State. A ministry approach tended to be more prevalent in dioceses within NSW and VIC. Where as the teachers' beliefs in QLD were significantly different to counterparts in NSW and VIC.

   (b) To what extent do teachers' beliefs about learning and teaching Religious Education differ according to age?

Older teachers (36-45, 46-55, >55) were more likely to have beliefs aligned with integrated approaches and ministry beliefs about Religious Education than younger teachers (18-25, 26-35). Interestingly, younger teachers (18-25) were more likely to have strong beliefs about Religious Education planning and teaching than older teachers (46-55).

   (c) To what extent do male and female teachers' beliefs about learning and teaching Religious Education differ?

There was no significant differences for the gender groups. The data presented suggested that females had consistently higher mean scores than males.

   (d) To what extent do teacher's beliefs about learning and teaching Religious Education differ according to their qualifications?

There was significant differences between qualification groups. For example, teachers with post-graduate qualifications such as a Masters qualification were more likely to have stronger beliefs aligned with the ministry approach to RE than teachers with Bachelor or Grad Cert qualifications.

   (e) To what extent do teachers' beliefs about learning and teaching Religious Education differ for number of years teaching?

With regard to this question, there were significant differences between the number of years teaching groups. For example, more experienced teachers (>20) were more

likely to hold beliefs associated with integrated approaches to Religious Education than younger teachers (0-2 yrs).

7. To what extent do teachers' beliefs about teaching and learning relate to their beliefs about teaching and learning Religious Education?

The extent of the relationship between early childhood and Religious Education beliefs about learning and teaching were examined in Section 5.8. This correlation analysis identified four significant relationships: emergent and ministry, skill development and Religious Education as a Key Learning Area, integrated approach to Religious Education and emergent, and integrated approach to Religious Education and contexts for learning.

Section 5.9 highlighted the process undertaken to select four participants for further study in Phase Two of data collection.

In summary, this chapter has reviewed the major findings of the quantitative data analysis for this study. These findings form an important foundation for the qualitative data component of this research because they allowed for the identification of four cases. The qualitative component is reported in Chapter Six and the linking of these quantitative results to the following qualitative findings can be found in Chapter Seven.

CHAPTER SIX

QUALITATIVE DATA RESULTS

6.1 Introduction

This chapter contains the analysis and findings for Phase Two of the Main Study. The results presented are qualitative in nature and provide a rich description of each of the four selected teachers. Data displayed in this chapter was drawn from multiple sources including the profiles of the teachers gained from the *Early Childhood Environment Rating Scale - Revised Edition*, observations, digital photos, semi-structured interviews and the artifacts collected.

6.1.1 Research questions answered in this chapter

The research questions answered in part in this chapter are:

1. What are early childhood teachers' beliefs about children's learning?
2. What are early childhood teachers' beliefs about teaching?
4. What are early childhood teachers' beliefs about children's learning in Religious Education?
5. What are early childhood teachers' beliefs about teaching Religious Education?
7. To what extent do teachers' beliefs about teaching and learning relate to their beliefs about teaching and learning Religious Education?

The previous chapter reported the partial results of these questions addressed by the ECTBLTRE instrument. This second Phase of data collection provides a rich, detailed narrative description of the four teachers to give more detailed insights into teachers' beliefs and their impact on classroom practices.

It is important to note that, because of the general nature of Question 7 two sub-questions had to be formulated. The specific sub-questions were:

- 7(a) Does the teacher's practice change between everyday early childhood teaching and teaching of Religious Education?
- 7(b) If it does change, why does this occur?

Apart from this introduction, there are five main sections in this chapter. Section 6.2 outlines the design of the research including data collection and analysis processes; Section 6.3 presents the analysis of the data; and Section 6.4 provides an overview of the data and includes detailed answers to the research questions. Section 6.5 responds to the specific focus of this chapter, namely, question 7. (1) To what extent do teachers' beliefs about teaching and learning relate to their beliefs about teaching and learning Religious Education? (2) Does the teacher's practice change between everyday early childhood teaching and the teaching of Religious Education? (3) If it does change why does this occur? Section 6.6 presents a summary of the four cases.

6.2 Research Design

Following the selection of four potential participants from the categories identified by the quantitative study, the participants were contacted to ascertain their availability and willingness to be involved in the observation visit and interviews for this second Phase of the data collection. Consent and information letters were posted to the school principals and teachers (See Appendix D). Times and dates were negotiated by the researcher and teacher.

Three of the four research sites were remote from the researcher's location (Brisbane) and travel plans with blocks of time of up to three days were scheduled so that all data could be collected. To assist with data verification, email contact with teachers continued after the visits to each participant had occurred.

The observation visits to the four participants' classrooms were conducted over two consecutive days. On the first day of the visit, the researcher (a) completed the Early Childhood Environment Rating Scale, and (b) observed the classroom environment, interactions, activities and experiences provided for children. Between the first and second day of the visits, the researcher reviewed the data, developed digital photographs and identified gaps in the data collected. A list was made of areas for further data collection on the second day of the visit.

On the second day of the visit, the researcher (a) continued to complete the Early Childhood Rating Scale, (b) observed the classroom environment, interactions, activities and experiences provided for children, and (c) conducted the semi-

structured interview with the teacher. The researcher commenced the transcription of the data collected immediately after the second day of the observation visit. Once the data was transcribed, the data analysis process commenced. In summary, the following data was collected from each site during the two day observation visits:

1. ECERS instrument- The Early Childhood Environment Rating Scale (Harms, Clifford & Cryer, 1998) instrument was administered in each of the classrooms on both days of the visit. Some elements were not observed on the first day and were seen on the second day. The ECERS-R collected data from seven sub-scales. These sub-scales were: space and furnishings, personal care routines, language and reasoning, activities, interaction, program structure, parents and staff.

2. Digital photographs were taken by the researcher during the two days in each classroom. The digital photos had two purposes in the data collection and analysis. First, the photos were used with the teachers in the semi-structured interviews to stimulate recall about the observed practices. Second, the photos were used by the researcher to rebuild the 'scene' and to clarify aspects of the teacher's practice and classroom environment that were not recorded in field notes or on audio tapes.

3. Audio-taped classroom observations and field notes were collected by the researcher. Audio tapes were used throughout the two day visit to capture conversations and interactions that occurred between the participant and children, colleagues and families. The recording device was placed in close proximity to the participant. Following the two day visit, selected components of the audio tapes were transcribed. Field notes were taken as a means of providing a link between the audio-taped data and digital photos. The notes had times and references made to significant events worth exploring during the data analysis Phase. The notes also contained information about the classroom environment, the school principal, families and colleagues.

4. A semi- structured interview was conducted at the conclusion of the second day of each visit. The interview schedule can be found in Appendix D. The semi-structured interview was audio-taped and transcribed. The participants were asked to verify the contents of the transcript via email. This data formed the major part of the qualitative data collected. It provided valuable insights into the participants' thinking and practice.

5. Artifacts such as planning documents, newsletters and school information were collected by the researcher. These items were collected to assist the researcher to

build a picture of each participant and to situate her practice in a real environment with tangible evidence.

Following the transcription and initial analysis of the data, the four teachers were invited to check what had been recorded about them and their practice. This was an important step in the data collection process as it ensured that what was written reflected the individual teachers' reality.

An emergent design was used to analyze the data. According to Gillham (2000), this process is called an inductive theory making process. Two separate methods were used to analyze data. First, a computer analysis package was used to explore the dimensions of the data. This exploration identified categories and words that were related and had significance in the data. Leximancer (Version 2) was the data mining software that was used to identify the categories within the data from the semi-structured interviews. Concurrently, a process of manually sorting, categorizing and analyzing data was also occurring. Both methods identified the main themes and categories from the transcripts. With these themes and categories in mind, but not limited by them, data was coded manually. Constant comparison of data occurred. The findings presented in this chapter are derived from this analyzed data and illustrate the categories that emerged with examples from the interviews and observed practice.

6.3 Presentation of individual cases

The cross-case analysis of the four individual case narratives is presented in this section. Case studies have a long history in social science and educational research. Yin (2003) defended the use of case studies as a valid, empirical research method. It was claimed that investigating research questions via case study methods was done utilizing procedures and processes that were consistent with well established research methods (Gillham, 2000; Yin, 2004). A case study approach enabled in-depth data to be collected and presented about each of the four participants. The results presented in these case studies are not generalizable but provide insights into the beliefs and practice of four early childhood teachers in four Australian Catholic schools. A sequence of the presentation of the case narratives and discussion of findings from four case narratives is outlined in Table 6.1. This table presents a

summary of the four cases with the category, gender, age, teaching experience and qualification level for each participant delineated.

Table 6.1

Summary of the four cases presented in this chapter

Case identification/ Category	Gender	Age	Teaching experience	Highest qualifications
6.3.1 Teacher A High emergent & high ministry	Female	46-55	15 years Catholic	Bachelor of Education (Early Childhood)
6.3.2 Teacher B High emergent & high integrated	Female	36-45	6 years Catholic	Bachelor of Education Bachelor of Psychology
6.3.3 Teacher C High traditional & high ministry	Female	< 55	34 years Catholic	Bachelor of Education
6.3.4 Teacher D High traditional & high integrated	Female	26-35	2 years Catholic	Bachelor of Education (Early Childhood)

The above table provides an overview of the cases and presents a summary of the background information. It should be noted that no male teachers volunteered to participate in this stage of the study. Hence the sample consisted of 4 female teachers. It is evident from this overview that the four cases were diverse and represent a range of teaching and life experiences.

Teacher A represented the high *emergent* and high *ministry* categories. The beliefs and practice associated with a high *emergent* teacher may include a responsive and flexible approach to planning for learning and teaching, and planning that emerges from the needs, interests and abilities of the children. The beliefs and practices associated with the high *ministry* teacher may include the teacher's role being viewed as an extension of the Church's ministry and the development of faith.

Teacher B was from the high *emergent* and high *integrated* categories. The beliefs and practice associated with a high *emergent* teacher may include a responsive and

flexible approach to planning for learning and teaching, and planning that emerges from the needs, interests and abilities of the children. The beliefs and practices associated with the high *integrated* teacher may include a focus on how everyday experiences can assist young children to make connections with religion. The content is determined by the prior and current experiences of the children.

Teacher C was from the high traditional and high *ministry* categories. The beliefs and practices associated with the high *traditional* teacher may be a more 'teacher--directed' approach to teaching and learning, in particular a focus on extrinsic motivators for learning and more didactic teaching methods. The beliefs and practices associated with the high *ministry* teacher may include the teacher's role being viewed as an extension of the Church's ministry and the development of faith.

Teacher D was from the high *traditional* and high *integrated* categories. The beliefs and practices associated with the high *traditional* teacher may be a more 'teacher-directed' approach to teaching and learning, in particular a focus on extrinsic motivators for learning and more didactic teaching methods. The beliefs and practices associated with the high *integrated* teacher may include a focus on how everyday experiences can assist young children to make connections with religion. The content is determined by the prior and current experiences of the children.

The following sections provide more detail about each of the four cases.

6.3.1 Teacher A

Demographics and background information-

Teacher A has been teaching for more than 25 years. She was in the age group of 46-55 years. She has a quiet, confident nature and has dedicated her life to working with young children from three to six years age. Teacher A completed a three year Diploma of Education in the 1970s specializing in Early Childhood Education. In the 1990s, Teacher A completed a Bachelor of Education to become a four-year trained teacher. Throughout her career, Teacher A has worked in a number of early childhood settings including community based kindergartens and preschools and for the past 15 years has been employed as an early years teacher in a Catholic school. Her previous teaching experiences were in two other Australian states. Teacher A was very confident about teaching young children and it has been her passion for a long, rewarding career. Teacher A was selected to be part of this study as she represented the High Emergent and High Ministry categories. Teacher A's current

teaching position is in Western Australia and she uses the Curriculum Standards Framework developed by the Western Australian Education department for the pre-primary year and the Archdiocese of Perth Religious Education guidelines.

6.3.2 Teacher B

Demographics and background information

Teacher B was in the age group of 36-45 years. Teacher B has been teaching in Catholic schools for six years. Prior to this she taught in public schools in various locations in Australia. Teacher B's initial teacher training was a Diploma qualification and she upgraded to a Bachelor of Education. She also completed a Psychology degree and worked in that field before coming back to teaching. Teacher B has four children and worked part-time during this period when her children were not at school. She is currently employed as an early childhood teacher in a Catholic school on the outskirts of a provincial town. Teacher B recently became a Catholic and this was the result of a long personal journey. Teacher B was selected to be part of the second part of the study as she represented the High Emergent and High Integrated category. Teacher B is currently employed in Queensland in a regional diocese. The Queensland Preschool Curriculum Guidelines was the document that formed the basis of programming for preschool aged children in this state. This diocese used the Archdiocese of Perth Religious Education guidelines for the teaching of Religious Education.

6.3.3 Teacher C

Demographics and background information

Teacher C has been teaching for more than 35 years. She was in the age group of >55 years. She has a quiet, determined nature and has dedicated her life to teaching children in Catholic schools from four to twelve years of age. Teacher C completed a two year Certificate of Teaching and upgraded to a Bachelor of Education and became a four-year trained teacher. Throughout her career, Teacher C worked predominantly in Catholic schools with the exception of a one-year exchange to the USA. Teacher C currently teaches part time (0.8) in an early childhood classroom in a small single stream Catholic school in a large Australian city. Teacher C was very confident about teaching and had a long, rewarding career. Teacher C was selected to be part of the study as she represented the High Traditional and High Ministry categories. The state of Victoria and the Archdiocese of Melbourne, was the context

in which Teacher C was employed. Accordingly, the Victorian Education department Curriculum Standards Framework and the Religious Education textbook used, was entitled ‘To know, worship and love’.

6.3.4 Teacher D

Demographics and background information

Teacher D has been teaching for 12 years. She is in the age group of 26-35 years. She was confident and has worked in both the state and Catholic education systems. She has taught lower primary and preschool. Teacher D completed a three year Diploma of Education, specializing in Early Childhood Education in the late 1980s. On completion of that Diploma, she commenced a Bachelor of Educational Studies to become a four-year trained teacher. Teacher D has worked in the Catholic system for only two years. She became a Catholic when she married and raises her three children in the Catholic faith. The children all attend the school where she is currently employed. Her previous teaching experiences were all in public schools in both rural and urban areas in Australia. Teacher D was very confident about teaching young children. Teacher D was selected to be part of the second part of the study as she represented the High Traditional and High Integrated categories. Teacher D was employed in the Archdiocese of Brisbane, in the state of Queensland. The teacher used the Queensland Preschool Curriculum guidelines and the draft Religious Education units for preschool developed by the Brisbane Catholic Education office.

6.4 Data analysis

The four cases outlined above were purposefully selected from a sample of early childhood teachers in Catholic schools around Australia. They each represented one of four possible combinations of teacher types used as criteria for the conduct of this study. The following figure depicts the combinations and where each teacher fits.

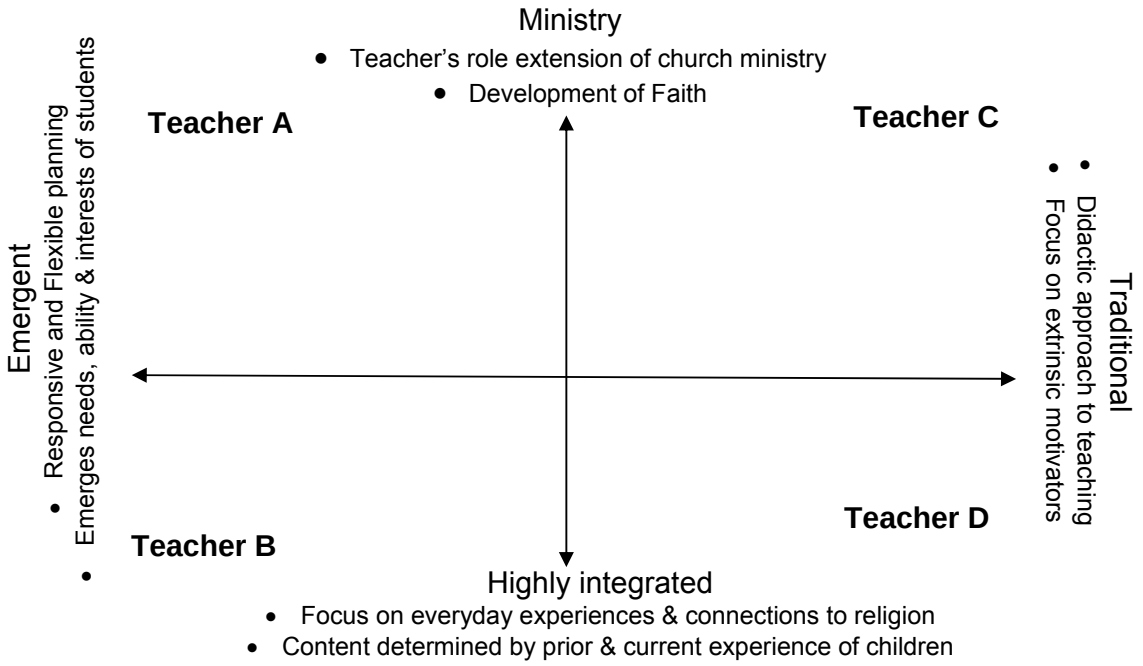

Figure 6.1. The positions of the four teachers on the criteria used for selecting teaching-combinations for further study.

This section presents a cross-case analysis of the findings according to the research questions and sub-questions outlined earlier in the chapter.

Research question 1: What are early childhood teachers' beliefs about children's learning?

In response to question 1, the following section outlines an analysis of the four teachers' beliefs and practices related to young children's learning from the collection of qualitative data. Six categories were identified from the qualitative data analysis. These were (1) learners attributes, (2) ways of learning, (3) factors that support learning, (4) factors that constrain learning, (5) monitoring children's learning, and (6) critical knowledge and skills for learning in the early years. This section presents examples from the data that exemplify each of these categories.

The *learners' attributes* identified in this category included beliefs about children that viewed them as confident, intrinsically motivated, life long learners that draw on prior knowledge and experiences when engaged in real, active and meaningful learning experiences. For example: Teacher A stated that "the interest has got to come from them… not until you have that involvement does the learning become real for them". Similarly, Teacher B stated that "I think interest makes learning spectacular!" She

also commented that “I do not see children being born *Tabula Rasa*, I see children coming from a family… all families are diverse… so as educators we need to recognise that.” Teacher C recognised that learners had different modes of learning. She commented that her mode was visual, and used practices that supported a range of learning styles. By contrast, “sponges”, was a term used by Teacher D. She described her learners as: “That idea of being sponges and wanting more and more and more.” These beliefs were evident in their practice and the ways in which they interacted with children and established a learning environment that was supportive, challenging and conducive to learning. For example, Teacher B’s classroom was busy and much of the children’s works was displayed as a memory of what had been done before, and also as an inspiration to other learners.

The ways of learning category that emerged in the data analysis is presented. Learning experiences observed were hands-on, using concrete materials, and real life experiences in a variety of modes including visual, oral, aural and spatial; through play, in varying groupings, both informal and formal, and incidental learning opportunities. For example, Teacher A stated that she believed children learned through “concrete experiences and doing hands-on activities.” This view was shared by Teacher B who commented that “Children need opportunities to manipulate their environments”. Within Teacher C’s context of a Prep classroom, she also stated that children learn through “hands-on” experiences. She commented that she is a visual learner herself and that this influenced how she catered for her learners. Teacher C stated that she used grouping as a method to help learners. Specifically, she commented that children could support each other in ability based groups. Teacher D did not comment on this category.

The factors that support learning, was another category that emerged in the data. In particular, issues within this category included structure, sense of adventure in learning, interest based, and risk-taking experiences. Additionally, play was viewed as a key element which supported and facilitated children’s learning. Interactions, partnerships with teachers, families and peers, working independently and in groups in both formal and informal contexts were also significant elements of this category. These were all observed practices in the classrooms.

Structure was an element that was discussed in both negative and positive ways in the data. Teacher D commented that “If it was such a structured time…. where no one was allowed to speak, they would not feel comfortable to ask questions.” By

contrast, Teacher C stated that “Children want to know what to do and how to do it. They love the structure and they have confidence and know they can do it.” Teachers A and B did not comment on structure.

Learning was seen as a wonderful experience in most of the cases. Teacher C commented that “Learning should be an adventure, interesting, rewarding and children need to experience success… if they do not get success… [this will affect] their motivation and love of learning.” Similarly, interest was viewed as a critical factor in children’s learning. Teacher A commented that: “The interest has got to come from them or you have to spark that little interest, not until you get that involvement from them… does the learning become real for them.” A level of engagement or interest was also reflected in Teacher B’s comments: “I think interest makes learning spectacular… Play shows you where their interests are… it shows you their language, and developmentally where they are so you can scaffold them from there.” Teachers C and D did not comment on interest as a factor that supported children’s learning.

Teacher D explained that risk taking was important for children within a safe and comfortable context. Children, in her opinion: “felt that they could ask questions and question things that were occurring”. Teacher C said that she had very high expectations for children’s learning. “I find the higher the expectations, the higher children go.” Teacher C expected that children in her class would take risks and have a go and in turn be self motivated and have higher personal expectations.

Play was a value held by all four cases. It was viewed differently by all four teachers and incorporated into their programs in a variety of ways. The context of each classroom and the teacher’s beliefs about learning impacted on the way they defined and used play in their program.

Teacher D allowed for large blocks of time for free play in her program and used themes in her class to introduce content to children. For example, last year she “did space” and plans to do a ‘sea’ theme next term. Teacher D provided materials for children around these themes and allowed them to play with them. Displays in her room provided evidence of what children were learning. For Teacher D, play was viewed as a natural and typical part of the program.

Teacher B planned for large blocks of play in her program, both indoors and outdoors with weather permitting. Play was something that Teacher B believed gives the teacher an insight into children’s thinking. “It shows where the children’s interests are,

play will let you build on what you know about where they are at." Teacher B embedded literacy and numeracy in play experiences. For example, she wrote stories told by children whilst painting or drawing. These stories documented children's emergent thinking about words and numbers. Teacher B viewed play as a child's right.

Teacher A used play as a teaching strategy as well as a vehicle for children's learning. Consequently, Teacher A deliberately planned for play. Teacher A commented: "I use role play a lot to get children to act things out. It is really them just actively participating, learning and working it out."

Play in Teacher C's program was used as a reward for work. The daily schedule was arranged in a way that meant mornings were for literacy activities, and the middle session was for mathematics. The afternoon session was for other Key Learning Areas and developmental learning activities. Teacher C stated that: "Play is very important. I think they learn so much through play… 'play' we call it developmental learning activities. I often tell the kids they are learning activities as opposed to play. A lot of them would just go home and say 'I just played all day'. Developmental learning activities are vital and should be included in all activities. Give them things to play with and assemble, they learn so much by talking and manipulation, the interaction is so important, the talking with each other."

In the previous comments made by Teacher C, this issue of interaction and partnerships was raised. This was another theme that emerged in the data. Teacher D remarked on the importance of partnerships in learning, in particular the relationship with children's families. For example, she stated that she was able to support a child effectively when dealing with loss because the parent had written a note that explained the circumstances to her.

Teacher A valued not only interactions between herself and children, but interactions between children, and families, or with other members of the school community and the local community. Collaboration in the classroom was valued by Teacher A. She said that "there is a lot of social learning occurring in the pre-primary years… Children have to learn that they are one of a group, not just an individual." Interactions and experiences in Teacher A's program provided evidence of interactions and partnerships. One example of this was with the voting blocks. These blocks were used when making 'big' decisions about the program. Each block had a

child's name on it and they placed their block next to the option they wanted to support.

Teacher B discussed the importance of interactions with families. In particular, she valued their involvement in the classroom and said "that really helps you get to know the child really quickly."

Both informal and formal experiences provided opportunities for children to learn skills, gain knowledge and develop positive dispositions towards learning. In the four contexts, there were varying types of formal and informal learning experiences observed. In Teacher C's prep classroom, the learning experiences tended to more formal than informal. The curriculum documents for this setting mandated outcomes for the year. Level one was the focus of the Curriculum Standards Framework in 9 Key Learning Areas, including Religious Education. The school also had literacy and numeracy programs in place for prep to year six. However, Teacher C was very conscious of providing opportunities for children to play and interact within 'formal' lessons and sessions. For example, during literacy time children worked in small groups on activities that required interaction and discussion. One such activity was reading and reconstructing the story in their writing pad. Children were observed in this activity talking about what words were in their individual books, the sounds they could see and also the word families.

By contrast, Teacher A, Teacher B and Teacher D's approaches to learning were less formal. In Teacher D and Teacher B's context there was no mandated curriculum, only guidelines for practice. In Teacher A's context, a Curriculum Standards Framework existed, but it recognised the value of less formal and more age-appropriate experiences being important for young children. There were times in the day in each of these classes in which children sat on the carpet for periods and listened to the teacher and participated in discussions. All four teachers appeared relaxed in interactions with children and all stated that they were confident about supporting young children's learning.

The factors that constrained learning included noise, formal setting and expectations, the school timetable and children's behaviour. Noise was an issue raised by Teacher A. In her context, her classroom is at the end of a long school block with a playground at the end. Adjacent to her room entry is a large asphalt surface that at meal times becomes a playground for the entire school. She commented:

> I find the noise level particularly loud, like sometimes we are in a fishbowl surrounded by noise from the room next door, the playground, the lower playground. It feels like there is noise coming in from all directions. It can lessen the concentration levels.

This was an issue for Teacher A's class as while her program had routines they were not governed by the school bell.

For Teacher D, noise was not an issue. Although they heard the school bell, her classroom was located away from the other classrooms and playgrounds. Teacher B's classroom was close to the school administration area and was also away from other classes and playgrounds. Her classroom routine followed the school pattern of the day. Being in a northern part of Australia, the school day started at 7.45am and finished by 2pm due to keeping children out of the sun in the heat of the day. Teacher B commented: "We are not flexible with our lunch break but we can be a little flexible about morning tea.." Teacher C's class used the school bells to provide breaks. During this time, the prep children ate and played in the playground with the rest of the school.

Both the 'formal' setting of the school and the nature of school timetables continued to be issues for teachers. Teacher A stated:

> In this school, it is definitely the school timetable. Also now because they have allocated so much time for DOC time (teacher relief), you feel that the children are being palmed off to different areas so the teacher gets the DOC time. I find it very frustrating that on one hand a belief and a policy that in early childhood there should be early childhood trained teachers and then they send them off to teachers that are not early childhood trained for these formal lessons, such as Italian. Often it is very frustrating for the children and being taught at a higher level. They are not yet ready. The ideas and concepts are above them. It is a very restricting sort of environment. I find that frustrating.

Behaviour was seen as an impediment to learning by Teacher B:

> Our understanding of children's behaviour is changing, they are now not just naughty children, there is a lot more to behaviour, chemical, physiological, a lot of children with ASD or ADHD or those children who display behaviours on this spectrum.

Similarly, Teacher C commented on the "social readiness" of children and how delays in this area of development impacted on their learning.

Monitoring children's learning theme includes sub-themes such as the use of observations and other tools to monitor children's learning, mapping on continua and on outcomes with relevant curriculum standards frameworks, reporting and testing, and collecting work samples and reporting to families.

Observation using a variety of formats was common to all four teachers. Teacher B used a journal to record daily anecdotes about children, their learning and development. She commented that she had an excellent memory and used this when reporting to parents daily or at the end of terms. Report cards were used for the first time this year with preschool aged children. Teacher D used anecdotes and checklists regularly and compiled a portfolio for the end of the year. Teacher D stated that she sat down with families at the end of the year for an interview with the portfolio. Teacher D linked her observations and interpretations to the Foundation Learning Areas of the Queensland Preschool Curriculum Guidelines for planning. Teacher A had a number of systems in place in her classroom that assisted her to monitor children's learning during the day. One example was a grid with children's names, stuck to tables with a clear adhesive and white board markers were used by the teacher and assistant to monitor children.

This information was then collated by Teacher A, who recorded these observations with other notes about individual children. One example of this was the *First Steps* developmental continua that mapped children's learning.

Teacher C tested children's learning weekly, specifically words and sounds. Teacher C commented that:

> Children's work books are good… I say that this is the best place to see their progress. They have an exercise book and you can see their progression and advancement.

Reporting children's progress to families was another issue that emerged in the data. Most of the reporting was done verbally, but there was a trend towards written reports and portfolios. Teacher D and Teacher B both compiled portfolios which showcased children's learning. These contained anecdotes and work samples collected throughout the year. Teacher A mapped children's learning onto a continuum and collected children's work samples throughout the year. Teacher A also had a display

area in the classroom specifically to share children's learning with families. It had many purposes as outlined by Teacher A:

> I like to put up the documentation. I think that the parents do not really understand the Curriculum Framework so by documenting the overarching outcomes and maybe even the learning area outcome and displaying samples of work that demonstrate the link then the parents will have a greater understanding of how and why we teach the children the way we do. Often I will also include a task descriptor so that if all the educational speak is too much to comprehend then the descriptor will clarify the work for the parents.

For the area of *Content/knowledge and skills* required in the early years, key areas identified in the data included: social skills and competence, academic and school readiness, skills such as pencil hold, name writing, alphabet and numeral identification.

Interactions with others, was an aspect of the data explored previously, this was viewed as factors that support or enhance learning. Social skills and social competence were issues identified as being critical skills to be learned within the early years. For example, Teacher D defined social skills as being the most important aspect of her program, in particular giving children the skills to deal with conflict. The next priority was literacy and numeracy skills. Teacher A also highlighted the importance of social skills in her program and spoke of ways that she explicitly taught children how to behave as part of a group. For example, in the current unit on groups and communities, with a particular focus on Indigenous culture, children formed tribes and elected leaders. This was the culmination of a process in which children had learned about what leaders do, what qualities leaders have and how the group was to function. Once a leader was chosen, the group signed an agreement and the 'leader' made a pledge about their role and responsibilities. Teacher B held similar beliefs and had similar practices to Teachers A and D.

The issue of *school readiness and the skills* needed for schooling showed some variation between the teachers based on their experience. Teacher C talked about social readiness, maturity, and chronological age as being most important. She also valued basic skills such as holding a pencil, name writing, letter and numeral recognition. In contrast, Teacher B challenged the notion of readiness:

> I've got a contentious answer… why should children be ready, they are our clients… does a doctor say to a patient, I'm sorry you're not ready for this

> illness yet, so I think we have to change our mindset and schools be ready for children, that is my theory.

Teacher D said, “I am right into school readiness!” She had developed a series of pamphlets for families to help them to decide on their child’s readiness for Year One. The areas she focused on were literacy, numeracy, fine motor, gross motor and social development. Teacher A did not comment on school readiness.

In summary, this section of the presentation of findings has illuminated sub-themes that emerged about early childhood teachers’ stated beliefs and observed practice about children’s learning. Learning was viewed differently by each teacher, and the data presented highlights the variations and similarities in the stated beliefs and practice. Specifically, learning was supported and constrained by many factors that were identified by teachers. Defining beliefs about learning is challenging for teachers and the data presented illustrates this complexity. Table 6.2 presents a summary of the four cases in each of the six sub-themes.

Table 6.2

Summary of four teachers stated beliefs and practice – Children's learning.

Sub-theme	Teacher A	Teacher B
Learners attributes	Interest was important for children's learning	Children came with prior knowledge
Ways of learning	Concrete, hands on, through play and interactions	Concrete, hands on, through play and interactions
Factors that support learning	No comments on structure Children's interest was important Play was used as teaching strategy and as a vehicle for learning Collaborations and partnerships with children, families and the community supported learning Tended to be an informal setting Mandated curriculum relevant to this setting	No comments on structure Children's interest was important Large blocks of time for play Play was a child's right Partnerships with parents helped to learn about children Tended to be an informal setting No mandated curriculum in this setting
Factors that constrain learning	Noise Formal school setting and bells sometimes created a distraction Colleagues not understanding pedagogy of early childhood e.g., relief teachers	Classroom close to administration block Followed school bells for daily timetable Children's behaviour impacted on the learning of others
Monitoring children's learning	Used grids for making notes during sessions. Children's competencies mapped onto continua. Work samples collected. Documentation panel displayed each term.	Observations of children, daily journal to reflect on teaching and children's learning. Used memory. Daily conversations with families. End of term interviews and portfolios for each child.
Critical knowledge and skills	Social skills and explicit teaching of expectations	Social skills important Challenged the notion of readiness, what do children need to be ready for?

Sub-theme	Teacher C	Teacher D
Learners attributes	Children learned in a range of modes	Children were empty, like sponges when they come to the classroom
Ways of learning	In ability groups, working with others	No comments
Factors that support learning	Structure provided a predictable environment to support learning No comment on children's interest High expectations for children's learning Play was a reward for hard work Families provided support and helped to learn about children Formal approach to teaching Mandated curriculum	Structure was viewed as a negative and inhibited learning No comment about interest Children encouraged to take risks Large blocks of time for play Play was a natural and typical endeavour for children Families provided support and helped to learn about children Tended to be less formal No mandated curriculum in this setting
Factors that constrain learning	Classroom part of the main school building. Timetable planned around school bell times Readiness of children	Too much structure was not good No comments on other factors such as bells and being part of a larger school
Monitoring children's learning	Work books used to monitor children's progress. End of term reports.	Anecdotes and checklists used to compile children's portfolios with work samples. End of year interviews with families.
Critical knowledge and skills	Readiness was important, maturity and age are important. Children should know basic skills such as how to hold a pencil, name writing, alphabet and numeral recognition	Social skills and competence higher priority than literacy and numeracy. Targeted literacy, numeracy, fine motor and gross motor skills in readiness program.

The above table presents a summary of the analysis of the responses for the four respondents. Similarities between the four cases included their beliefs about play. It was an element in all of their programs, but the way in which it was used varied. A major difference between the four cases was in the way children's learning was monitored. Each of the four cases had developed their own methods for recording and documenting children's learning. This reflected the variations about reporting and accountability in each of the contexts. The following section presents the findings related to Research Question 2 concerning early childhood teachers' stated beliefs and observed practices related to teaching young children.

Research question 2: What are early childhood teachers' beliefs about teaching?

Teachers' stated beliefs and observed practices related to teaching were explored in the collection of qualitative data. Five categories emerged from this data. These categories were: (1) planning, (2) time, (3) approaches to planning, (4) play or active learning, and (5) approaches to teaching. The following section presents the themes that emerged from the data.

Planning was a key theme that emerged in the data. Specifically, planning was linked to the curriculum documents relevant in each context. Two of the four cases used the Curriculum Standards Framework as a basis for planning. The other two cases, both from Queensland, used the Preschool Curriculum Guidelines. The teachers that had curriculum documents with outcomes appeared to have greater clarity about the aims of their program and where children were headed within that framework. These teachers were able to clearly articulate the nature of their program, the methods used for teaching and could show evidence of children's learning. There was a high level of accountability in these programs for the teachers, for families, for school administration and other external stakeholders.

Teacher A stated the following about her planning within the Curriculum Standards Framework:

> We have a two year cycle where we decide a topic for each term and both years one and I do the same topic. This way we are ensuring that during primary school they will not be covering the same topics and we are covering all aspects of the curriculum frameworks. We are all accountable; we all cover all Key Learning Areas as well by doing it this way.

Teacher A's school had embarked on a whole school approach to ensure the Curriculum Standards Framework was implemented and that all KLAs were taught. Teacher C's school had adopted the same approach. In both of these contexts, the pre-primary and prep classes were viewed as part of the whole school, and that included the curriculum and planning. There appeared to be a seamless integration as children moved from these classes to Year One. At the time of this research, this was not the case in Queensland. The Preschool Curriculum Guidelines had Foundation Learning Areas which were not explicitly linked to the Key Learning Areas. Decisions about what to include in the program, the program goals and outcomes were made by the teacher. For example, Teacher B and Teacher D found it challenging to discuss the aims of their program within their Curriculum Framework. They were able to discuss the strengths of individual children and what they hoped they would learn, and to, describe the strategies used to teach.

Time was a second theme that emerged in the data related to planning. Specifically, teachers have or do not feel they have flexibility in their use of time. Teacher B indicated that:

> The limitations on us are our breaks, morning tea and lunch, we cannot be flexible about these… otherwise within those other large blocks of time, flexibility happens. An hour or more in and outside, they have big chunks of time and children become really involved in activities in this time.

Time for Teacher C was also an issue. She used it to manage children's learning and to meet the objectives of her school-based curriculum. For example, when thinking about her use of time, Teacher C stated:

> I am pretty flexible. From 9-11 we cannot really move because the parents are here to help with Literacy. On Fridays, I do not have any parents, so I can loosen up and the kids make letters with play dough, use chalkboards, whiteboards, jigsaw puzzles, they rotate, they are still learning, it is a nice easy morning… not boom, boom, boom, off they go.

Teachers A and D did not comment on time being an issue in their planning considerations.

Approaches to planning, was the third theme that emerged in the planning data. In particular collaboration with colleagues in other year levels when planning was highly regarded. This was a positive aspect for the teachers as they were able to contribute

positively to other programs in the early years and to foster consistent and active learning approaches. For example, Teacher A planned with the Year One teacher. They shared resources and developed experiences that both year levels could share. This was demonstrated in the current Indigenous studies unit, where the children in each year level presented their culminating activity to each other. Themes or topics were commonly used by the teachers to organise content and to provide a focus for the term. In the term in which the researcher visited, Teacher A's class was doing a SOSE based unit on Indigenous Studies, Teacher C's class was focusing on the Olympics, Teacher B's class was investigating pre-historic creatures, and Teacher D's class was learning about their community.

To *play* or not to play, was the fourth theme that emerged in the data. Play was a term frequently used by teachers but different meanings were ascribed to it and hence what it looked like in practice differed. Play was more appropriately named "active learning" by these teachers. Play for Teacher C was viewed as 'work'; that it had a specific purpose and was used to develop skills. Teacher C valued play, and included developmental learning activities. She expressed some concern about programs in which all children just 'play'. "I don't think they were as thorough, they would let the children play."

Teacher D believed that play was a child's right and that a teacher's role was to support children's play. In one comment, Teacher D said:

> I wish I had more time to go and sit in home corner and really play with them… last week two children made a space ship and I got in and went to Mars with them. To me this was more valuable than table top activities. It was wonderful, on our trip we talked about food in space. To me this was just fantastic learning. To get into their play, not just as an observer and to play with them to encourage them to be independent learners.

Play was incorporated into Teacher B's program in a way which appeared natural and child-centred. Children had access to a wide range of materials that were thoughtfully displayed and had large blocks of time to investigate with other children. In their play, children created and discovered alone, with peers and then new learning was shared with the group. For example, the current theme was pre-historic creatures and the children were making creatures for the class museum.

For Teacher B, play was about children being involved and engaged in meaningful activities and the learning or development that occurred as a result of the interactions

with others, materials and teachers. Teacher A had a similar approach to incorporating play into her program.

Teacher B created an environment which allowed children the opportunity to investigate and manage their learning. Group times provided direction for children, and they made choices about their activity during the session. At the end of each session, the group was re-formed to reflect on the learning. Teacher A also used a similar approach with her class. The emphasis for her was on children beginning to take responsibility for their effort and work.

> We review our work and sometimes we go back and do it again if we need to. We also consider what 'best work' is and sometimes there is an emphasis on doing their best.

A*pproaches to teaching,* was a final sub-theme that emerged from the data analysis. Worksheets, book work and 'have to' activities were some issues that were evident. Teacher D's approach to teaching included some table-top activities that children were encouraged to do before going onto other 'free' choice activities. For example, there was a fine motor/ cutting activity that was used to assess children's skills. During that session, children were encouraged to go to the table and complete the activity with the aide. Other activities included 'home corner', play dough, blocks and other construction during the indoor time. The outdoor play included an obstacle course which all children lined up to go over one by one, and then 'free' choice with water and sand play, painting and play dough and collage materials. The atmosphere was happy and children appeared to be engaged without incidents of conflict.

Teacher A also had some 'have to' activities, as well as many activities that were 'free' choice. During the observation visit, six 'activities' were available to the children during indoor time. These included a view, draw and tell story; writing using children's picture dictionary to make lists of words in writing pads, a 'hard' puzzle table (a 250 piece map of the world that pairs of children worked on at various times of the day), letter writing and post boxes, and making costumes and masks for an upcoming presentation for families. The children were also able to paint, create and build with collage materials, dress up in the dramatic play area and block area, and find a quiet space to read a book. The outdoor area included a large sandpit and movable climbing equipment. It was during the observation visit that the children were introduced to woodwork for the first time. Teacher A demonstrated how to use the various tools and provided clear and explicit directions that would lead to their

successful use and ensure safety for all children. On reflection of this, Teacher A commented:

> I do this [give explicit instructions]. I like to give the demonstration first, so that they can put it into action and practice. I feel that when we do a big activity or something new, I do the explicit teaching first and then they go and put it into practice.

Teacher A's classroom was welcoming to children and their families. There was evidence of children being actively engaged in experiences and working together to learn. The teacher's role was one of guiding, supporting and ensuring that structures were in place that provided children the freedom to be engaged at their own level.

Teacher B's classroom looked very busy, with displays on all the walls. Children's individual work was displayed alongside Monet's prints and photographs of architecture and vases of beautiful silk flowers. Care was taken in the design of this environment to ensure that children had spaces for various types of play: quiet and noisy, alone, in small groups or with the whole group. Indoor activities were set up and children were able to choose what they wanted to do during each session. Children were engaged in making dinosaurs with boxes and other construction materials, patterning, sorting and threading beads, blocks, a range of manipulative materials, dinosaurs in sand, and drawing. In the outdoor area there was collage with many small items such as buttons, easel painting under the trees, balls, balance boards, sand and water play, a train set, and a dramatic play area. The classroom was relaxed and busy. Children were engaged in chatter amongst themselves and there were no raised voices from children or adults.

Teacher C's classroom operated differently from the other classrooms described in this section. A literacy block operated each morning between 9 am and 11am. There was one hour of reading activities and one hour of writing activities. The children were divided into four groups and they did two activities per morning. Teacher C worked with one group each day, while the other three groups worked independently or with the help of parents. In these sessions the focus was on the correct formation of letters, punctuation, rhyming words, retelling stories and sequencing. Children were engaged in activities and worked co-operatively in small groups. During the middle session of the day, numeracy and applied mathematics was the focus. The room displayed children's work on the walls, including stories and artwork. Teacher C's children wrote in their own workbooks and Teacher C was able to view children's

work and progress. Worksheets were used for specific activities in a range of curriculum areas.

From the data collected in Phase One about these four cases, it was evident that these teachers were categorised into having two different approaches to teaching. These categories were: 'teacher-directed' or 'child-centred'. The observation visits challenged the notion that the teachers only fitted one particular category. There was evidence that suggested the teachers adopted an array of strategies including direct instruction, role modeling, demonstration, co-constructing, and questioning. These were both 'teacher-directed' and 'child- centred'. The data suggested that although each teacher was categorised into a specific category, according to their dominant beliefs, each of them also displayed other practices that were not consistent with their main approaches.

In summary, this section of the presentation of findings has illuminated themes that emerged about early childhood teachers' beliefs about teaching young children. Table 6.3 presents a summary of the four teachers' beliefs and practices in each of the five sub-themes.

Table 6.3

Summary of four teachers stated beliefs and practice – Teaching young children.

Sub-theme	Teacher A	Teacher B
Planning	Curriculum Standards Framework as a basis for planning Collaborative approach with year one teacher, plans done in two year cycle Whole school approach to planning	Foundation Learning Areas were considered when planning Teacher as sole decision maker
Time	No comments about time	Time was limited by school break times
Approaches to planning	Collaboration with year one colleagues Themes based on the Key Learning Areas	Teacher-selected themes and topics Based on typical children's interests
Play/Active learning	Play was a natural children's endeavour Teacher used a plan-do-review method of reflection to make children's learning explicit to them	Play was a natural children's endeavour Materials were easily accessible for children Children worked alone, in pairs or in small groups
Teaching approaches	'Have to' and 'want to' activities and free play Child-centred approach	Environment was viewed as a teacher Child-centred approach

Sub-theme	Teacher C	Teacher D
Planning	Curriculum Standards Framework as a basis for planning Whole school approach to planning	Foundation Learning Areas were considered when planning Teacher as sole decision maker
Time	Time was limited by school break times Literacy and numeracy blocks were fixed times due to school based decision	No comments on time
Approaches to planning	Themes were based on Key Learning areas Topics/themes were selected by the teacher	Teacher-selected themes
Play/Active learning	Play equals work 'Play' had a specific skill development focus	Play was a child's right Teachers' role was to support children's play
Teaching approaches	Formal approach Literacy and numeracy blocks each day Worksheets and workbooks used to practice skills Teacher-directed approach	Table top activities specifically selected to build on children's skills Teacher-directed approach

Beliefs and classroom practices about teaching young children were presented in the above table. Interestingly, the teachers' beliefs and practices were generally consistent with the category. Teachers A and B were generally 'child-centred' in their approach to teaching and Teachers C and D were consistently more 'teacher-directed' than Teachers A and B. The following section presents the findings about early childhood teachers' stated beliefs and observed practices related to Religious Education.

Research question 4: What are early childhood teachers' beliefs about children's learning in Religious Education?

Early childhood teachers' stated beliefs and observed practices related to children's learning in Religious Education were explored in the collection of qualitative data. The data highlighted represents the four categories that emerged. These categories were: (1) learner's attributes, (2) ways of learning, (3) critical content/knowledge, and (4) monitoring children's learning in Religious Education.

Learners' attributes was a significant theme that emerged in the data; in particular, the prior knowledge and experience of children with regard to Religious Education. The four teachers commented on an increasing trend amongst children attending Catholic schools who have had limited experiences with the Church and God. Teacher B commented that:

> We are seeing larger numbers of non-Catholic children here. One of our little girls is a Muslim. I thought that it was a privilege that our school was chosen for her to come to. Perhaps her family knows that the school will be a safe, caring environment for their child…. We have a large proportion of children at our school who are not Catholic, nearly half. It is really important to have families involved as we are introducing new families to Catholicism.

Similarly, Teacher C commented on the fact that many children are Catholic, but their experiences vary.

> One of the first things they are asked for with immunization is their baptism certificate. To be honest I would not know how many are baptised. Parents may not be attending mass on Sunday but they still want a Catholic education for their children. I remember a few years ago when I came here, we had a mass for preps and two of mine [parents] turned up and in days gone by maybe two of them didn't turn up. It made me realise that our church has

> changed. Society has changed and probably this area as well. You could go to another Parish and you would have a full house. It depends, I think that we have a lot of people moving in and out of our town all the time. So it is not the community that has always been here.

A similar trend was reported by Teacher A:

> Many families are Catholic, in the fact their child has been baptised and I think that the directive from the Catholic Education Office is that we do give priority to Catholics and there are a few who are Church of England or Uniting. They have accepted that the children will be taught Catholicism in the school. There are some that have no religion or are not baptised but they have accepted that as well. A very high percentage of the families are Catholic but I do not know if they are practicing or not.

Teacher D made no comments on this issue. The above trends impacted on what children know and what they have experienced. In terms of what teachers expect children will know when they arrive in their classroom, Teacher C expected:

> Very basic things like just praying. How to pray, the sign of the cross, the special prayer place, our prayer place, the crucifix and the Bible and then we proceed to make the sign of the cross. Some of them can make it already and to some it is very new.

Teacher A recognised that children's family context and prior experiences may lead to some experience before starting at pre-primary.

> If they have older brothers and sisters they have been exposed through the brothers and sisters. There are some families who are very strong practicing Catholics so they have a strong, good knowledge. Then there is a group of them that would have no knowledge at all and in kindergarten they talk a little bit about God, Christmas and Easter. Then they come here and they are given more. They are growing and evolving their understanding of religion.

Ways of learning Religious Education and *critical content/ knowledge* were linked themes. Both were grounded in the real life experiences that children may have been involved in. It was perceived that relationships with others were a major way that children learn about Religious Education in these classrooms.

Teacher D started every day with a prayer circle. A candle was lit and the children were aware that the time was 'special'. Children were encouraged to share ideas and

prayers. Throughout the observation visit, Teacher D emphasised caring for each other and the value that each child brings to the class.

Teacher B used whole class and small group discussions to share new information and discuss children's developing awareness of God and all topics related to Religious Education. Children brought in items for show and tell and Teacher B used these everyday experiences to build connections with the Religious Education content. In her own words, Teacher B said:

> We are open, we invite children and families to liturgies, and we are telling them that it is about love, being kind and looking after others.

Teacher C began and ended the day with a prayer and had 2 hours of Religious Education lessons timetabled every week. During the observation visits, Teacher C commenced a new unit on Baptism, a topic that most children could relate to. Each of the topics in the text was linked to real life experiences for young children in Prep. Each of the teachers considered what content was appropriate for the children in their class. Teacher B believed that Religious Education in preschool should focus on the:

> Need to know that there is a God who loves them, that their families love them dearly. They are part of a community, the Church and the school community. They have trouble differentiating between God, Jesus and Fr F in the church.

Vocabulary and naming things they see in the Church and school were also important. Teacher A commented that:

> Naming… we go over to the Church and we learn the names for different parts… for some it is just amazing. Some of the children are walking into an unknown world. An example of that, the Sacristy, oh I, mean the Tabernacle, at the back of the Altar has a red pleated curtain and we went in there and one of the children said to me… "Why do they have a sports skirt up on the wall?" We had been talking about what happened to Jesus and they walked and saw the big crucifix with blood, it was highly dramatic but then we went through the story and there is an emphasis on the risen Christ and a happy new life that we experience at Easter. I think that it has to be tempered and the information that they're given and that there is not a gory side or evil side to religion… it is more that God is good and has something good to give us.

Prayer for Teacher D was important and something that she valued with her children. Teacher C used the textbook to determine the topics to be covered during the year. The textbook came with a teacher's handbook which made suggestions as to how the text could be used, the sequence of topics and suggested ways to assess learning.

Monitoring learning in Religious Education did not occur in the same way as previously discussed in monitoring children's learning. Although each teacher had some form of Religious Education guidelines or syllabus document, there appeared to be limited requirements on teachers to report on this area of learning. For example, Teacher A said:

> No we do not… we have to link it up with the curriculum framework so we can see that all is covered… I have deliberately chosen the topics for this term because they link in with Aboriginal Studies, families, tribes, special, me… I think we can [monitor] in a way… like I will read a story from the Bible and then get them to do a drawing about it…what it was … and then I conference them so they can tell it back to me and I can write it down and from what they tell you, you can tell what they have taken in. That is the only level of accountability that I would say we have.

Teacher B indicated that the Diocesan Guidelines were used as a starting place, but most of what occurred was as the result of responding to children's interest and opportunities for incidental learning. Teacher D was aware that RE units existed but had never used them to plan for Religious Education. Teacher C was the only teacher who reported formally to parents on the learning of Religious Education, based on the units covered in the term.

In summary, this section of the presentation of findings has illuminated themes that emerged about early childhood teachers' stated beliefs and observed practice related to children's learning in Religious Education. Specifically, Religious Education in the early years has content grounded in real life experiences. This factor appeared to be consistent across the four cases. Table 6.4 presents a summary of the data.

Table 6.4

Summary of four teachers stated beliefs and practice – learning in Religious Education.

Sub-theme	Teacher A	Teacher B	Teacher C	Teacher D
Learners attributes	Prior experience with the Church and Religion was increasingly limited before children start school	Prior experience with the Church and Religion was increasingly limited before children start school	Prior experience with the Church and Religion was increasingly limited before children start school	No comments
Ways of learning/ Critical content/ knowledge	Time was planned each week for RE Children were introduced to vocabulary related to RE	Discussions related to everyday experiences Show and tell was a session used to build on children's experiences and to make connections with RE topics Being loved and part of the community was most important knowledge	Prayer was used at the beginning and end of the day Two hours a week programmed for RE Topics and content for learning were based on RE program, text for school and home use	Prayer was most important skill for children Prayer circle each day used as an opportunity to share and learn about God
Monitoring children's learning	Learning was linked to Curriculum Standards Framework outcomes Teacher conferenced children to ascertain learning in RE	Diocesan RE guidelines was a starting place, children's interest dictate direction on learning	Based on RE documents RE learning was reported to parents twice a year in report cards	Teacher was aware of RE units, no requirement to monitor children's learning in RE

Beliefs and practices about children's learning in Religious Education for the four cases were presented above. Their individual contexts, including their own knowledge about Religious Education and the expectations of the setting impacted on their beliefs about children's learning. The following section presents the findings about early childhood teachers' stated beliefs and observed practices related to the teaching of Religious Education in the early years. Three of the four teachers commented on the way in which families engage with the Catholic religion. For many families, the Catholic school was the first encounter with the Church since the child was baptised as a baby. There is also an increasing number of children from other denominations and religious backgrounds enrolled in Catholic schools. The teachers commented that basic rituals such as the 'Sign of the Cross' needed to be explicitly taught as it was perceived that there was limited prior learning and experience.

Research question 5: What are early childhood teachers' beliefs about teaching Religious Education?

Teachers' stated beliefs and observed practices related to teaching Religious Education were explored in the collection of qualitative data. The examples presented below represent the three categories that emerged from the data. These categories were: (1) teachers' role, (2) approaches to teaching Religious Education, and (3) planning.

The *teachers' role* in teaching Religious Education varied between the four teachers. At one end of the continuum, Teacher D suggested that Religious Education should be the responsibility of parents. The role of teachers and Catholic schools was to facilitate experiences for children and families, and to provide support in children's religious development. At the other end of the continuum, Teacher C commented that:

> I hope that I am a good role model for them. Some of them just don't have it. I hope that I am the face of the Church to them. Not only me, all teachers in Catholic schools. We work with each other.

Similarly, Teacher A takes her role and ministry seriously.

> The role that you are playing… you are trying to impart this feeling of God, this presence of God. At this level the Christian values are so important and I think you can see it in the way that they play with each other. You can quickly relate to 'let's be kind to each other', 'resolve issues' it is just being a bit kinder to

> each other. I see myself as a participating and practicing Catholic so therefore I impart that to them and I try to give a bit of my God to them. The sense, that God is around us and with us.

Teacher B acknowledged that her role was one that was growing as she became more aware of what it means to be a Catholic and what Catholics do. Her identity was closely linked to her personal journey and confidence. Teachers A and C both confirmed that they were very confident about teaching Religious Education and enjoyed the content and freedom of the learning area. Teachers B and D were less confident about teaching Religious Education. This was linked in both cases to recent experiences of becoming a Catholic.

The teachers' *approaches to teaching Religious Education* included questioning, discussion, hands-on experiences, worksheets, stories, drama, art, craft, movement, music, excursions, through interactions, props, photographs, dramatic play, and knowledge that is passed onto children about values, beliefs and attitudes that are associated with Catholicism and Christianity, and sharing and learning new ideas from others. Each classroom had a prayer table that was the focal point for prayer and quiet times. Teacher B said that for her:

> RE looks like the altar (prayer table), it changes according to what is happening. We had a little boy whose mum is in a lot of pain. At one stage, someone had plonked his shoes onto the altar…

The above example showed an insight into the way in which this teacher incorporated Religious Education into daily life in the classroom. The children knew that the child in question was finding life challenging and had frequently been away; this was a way in which the children reminded each other to think about and pray for one of their classmates. For this teacher, Religious Education was more than topics and concepts, it was about caring, sharing and loving and being Christ to others.

Teacher A stated that she used a variety of methods to teach Religious Education including discussions, drama, props, artistic responses to topics, and excursions to the Church. The approaches were linked to the diocesan guidelines and a series of "Wonder" questions were posed for the children to explore.

Teacher B used discussions with the children to raise and respond to their questions related to Religious Education. These discussions provided information about topics

of interest. Occasionally, Teacher B used a worksheet with children about a specific topic. Usually children coloured-in the sheet that was related to a specific topic.

Teacher D claimed that the prayer circle was the only form of Religious Education conducted in her classroom. She was conscious of her position as a role model for children and fostering a positive social environment.

Teacher C used a range of approaches that were supported by the teacher's guide for their Religious Education textbook. Responding to children's questions and having discussions, use of props to help children make connections between content and their experiences, worksheets, workbooks and Bible stories were all common aspects of practice.

Planning in the Key Learning Area of Religious Education differed significantly from other planning that teachers do for other Key or Foundation Learning Areas. It was treated differently to other learning areas like English, Mathematics and Science. For example, Teacher C said:

> Religion is harder to grade or monitor how much children have learned, it is not a subject like that, it is really not like a curriculum area, it has to be different.

Even though it was viewed differently, Teacher C used the diocesan Religious Education textbook, "To Know, Worship and Love" as a basis for planning. Two hours per week were set aside for the teaching of Religious Education. For example, during the observation visit, "Unit 10: Baptism" was started. The four, 30 minute lessons were planned with focus questions and props to use in the teaching of the topic. Similarly, Teachers A and B used the same guidelines to plan, even though they were from different dioceses. These guidelines had topics with recommended age appropriate activities. Teacher A commented that:

> I like, in the guidelines… when they say to set up a Christening Font in the block corner with dolls and baptise their dolls… very much a hands-on approach to Religion. We do prayer services around the candle and we reflect and we bring our work to the community circle and share what we have learnt at that time. All of those sorts of things I think are more appropriate than attending big long ceremonies that the children do not have the concentration, patience or understanding for. It is very appropriate for their level what we are learning now. I think those things…. The Hail Mary we are learning now it is in

> the Guidelines for “We are special”… that they have started to talk about Mary the Mother of God and are not doing it as a rote learning but as a liturgical movement and have now moved to the prayer aspect of it. I like the way they have got it, very sensitive to children’s learning.

Teacher D worked in a diocese that did not have specific guidelines or syllabus documents for Religious Education in Preschool. They had four suggested units of work that were developed in draft form and which were used in many preschools in the diocese. The units drew on contemporary books and songs to assist children to connect religious concepts with their own life experiences.

Time set aside to ‘teach’ Religious Education varied. As highlighted above, Teachers A and C both planned explicit lessons and had a certain number of topics that needed to be covered in a year. For Teachers B and D there were no expectations from the school that any particular amount or type of content had to be covered. Teacher B commented:

> There are times we spend doing RE. But there is a lot of incidental RE. Even the way we get children to look after each other, to care for each other, as well as the Bible stories and the play that comes out of that.

The case was similar for Teacher D, who had daily prayer, but other RE was covered during the day when she and the children made connections with everyday experiences.

In summary, this section of the presentation of findings has illuminated themes that emerged about early childhood teachers’ stated beliefs and observed practices related to teaching Religious Education in the early years. Specifically, the nature of the teacher’s role and approaches to teaching and planning Religious Education in the early years were discussed. Table 6.5 presents a summary of the four cases beliefs and practices related to teaching Religious Education according to the three sub-themes.

Table 6.5

Summary of four teachers stated beliefs and practice – teaching Religious Education.

Sub-theme	Teacher A	Teacher B	Teacher C	Teacher D
Teachers' role	Ministry Role model Relationships with children and families important Confident in role	Emerging understanding of role Not confident	Role model 'Face of the Church" for many families Confident in role	Not confident Did not feel she had a role, teaching RE was parents' responsibility
Approaches to teaching RE	Used drama, arts as methods for children to respond to RE topics 'Wonder' questions used as the basis for discussions and inquiry into RE topics	Prayer table was a central focus in the classroom RE was viewed as part of everyday life More than topics, it was seen as action Used worksheets occasionally	Textbook used both at school and at home as basis of RE program Frequent discussions about topics Use of props to make topic real for children Worksheets used for some topics	Prayer circle was primary approach to teaching RE Teacher viewed the positive social environment as important way of promoting RE attitudes with children
Planning for RE	RE guidelines used a basis for planning Time for RE each week in program Expectation of school that RE is planned for and implemented each week to cover the topics in the guidelines	RE guidelines viewed as a guide only Topics selected based on children's interests No explicit expectation in school that RE be taught regularly, no accountability	RE planning was not like other KLAs Time for RE each week (2 hours) Expectation that guidelines be implemented by school and Archdiocese	No guidelines in diocese, only four draft units Teacher aware of units, not used No expectation in school that these units are implemented, no accountability

In summary, the above data confirms some of the categories that were established in Phase One of this research. For example, the data confirmed that Teachers A and C

were more ministry focused and that Teachers B and D, because of contextual factors used a more integrated approach to teaching Religious Education. Teachers A and C have been teaching for more than 25 years and have experienced more traditional Catholic values and practices. Whereas Teachers B and D, Catholicism is a relatively new experience. The Ministry focus of Teachers A and C may be derived from their lifelong experience of participating in Catholic faith, parish and school communities.

6.5 Relationships between beliefs and practice

The following section presents the synthesis of the data in order to consider Research Question 7: (1) To what extent do teachers' beliefs about teaching and learning relate to their beliefs about teaching and learning Religious Education? This question has two sub-questions that are explored in this section:

- 7 (a) Does the teacher's practice change between everyday, early childhood teaching practice and the teaching of Religious Education?
- 7 (b) If it does change, why does this occur?

A synthesis of this data is presented in two tables which highlight the four teachers' practice and beliefs for both early childhood and Religious Education. This presentation of data represents the conclusion of a process which included listening, watching, note-taking, interacting, transcribing, reviewing, engaging with and interpreting the data collected from multiple sources. The researcher selected a framework used by Branson (2004) to present data from the multiple sources. Specifically, Branson (2004) described behaviours of Principals as General and Specific. For the purpose of these tables, both beliefs and practices for early childhood and Religious Education are presented. Following each pair of tables, an analysis for each teacher is presented.

6.5.1 Teacher A

A synthesis of Teacher A's beliefs and practices are presented in this section. Tables 6.6 and 6.7 illustrate Teacher A's practice and related beliefs about early childhood learning and teaching and Religious Education learning and teaching.

Table 6.6
Teachers A's practice and related beliefs about early childhood learning and teaching that support/challenge practices

Teacher's early childhood practice	Related beliefs about early childhood learning and teaching
• Classroom environment is well organised and is planned to facilitate independent learning. • Routines are well established for children and provide a predictable structure for children. • Opportunities are provided for children to use language and to solve problems collaboratively with others. • Activities for children involve a range of child selected and directed, and teacher selected and directed experiences. These are negotiated with the children and children are free to choose activities. • Interactions between staff, children and families are highly valued and are collaborative and democratic. • Time for play is provided in large blocks and children have access to a range of materials both in and out doors. There are opportunities for large group and small group times and also for children to work alone or with a teacher.	**Children's learning** • Learners are intrinsically motivated, life long learners, children learn when they are engaged in real, active and meaningful experiences. Learning occurs when children have an interest. • Children learn via hands-on experiences using concrete materials, there are various modes of learning including written, oral and sensory. Children learn mostly through play and in varied groupings. • Factors that support learning include capitalizing on children's interests, having time for play and working with others. • Factors that constrain learning include noise, the formal school setting, and the school timetable impacting on the program. • Monitoring children's learning includes the use of observations which are mapped onto developmental continua. There is some documentation of learning and the use of reports for families. • Social skills and the explicit teaching of these are the most important skills to learn in this early years' classroom. **Teaching young children** • Planning for teaching relies on local curriculum documents and curriculum standards frameworks. • Time is planned by the teacher to have large blocks of time for continuous exploration with a high degree of flexibility. • Approaches to planning include collaboration with colleagues, use of themes and topics negotiated with colleagues/ assistants. • Play and active learning are strategies supported in this program. The environment is designed to support learning and teaching and various spaces are included for a range of interactions, group sizes and experiences. • Approaches to teaching includes some "have to" experiences, explicit teaching of skills, (e.g., safe use of woodworking materials), and process of children planning experiences, doing and reviewing / reflecting.

Table 6.7

Teachers A's practice and related beliefs about Religious Education learning and teaching that support/challenge practice

Teacher's Religious Education practice	Related beliefs about learning and teaching Religious Education
• Classroom environment for RE remains the same as everyday early childhood practice • Routines for Religious Education are embedded in the program. There are times scheduled each week in the program for RE. Children are given opportunities to respond to content through a range of experiences. • Opportunities for language and problem solving are included in the RE program. Children are given opportunities to develop vocabulary and RE concepts • Activities include stories, drawing in response to stories, group projects, painting and creative arts, drama and play. • Interactions between teachers, children and families are respectful and positive. • Time is allowed each week for Religious Education. It occurs as a planned experience and also as an incidental experience. The teacher uses everyday interaction with children to build on values, beliefs and attitudes that are consistent with Gospel values.	**Religious Education** • Religious identity is developed within children by fostering a sense of belonging in everyday experiences, and the school is the 'new' Church. • Culture is a way of life and the interactions in the class and school are important and support a gospel-based way of living. **Children's learning** • Learners' attributes include children having prior knowledge and experience with RE concepts. Increasingly children are coming with fewer prior experiences with Religion. • Ways of learning includes the use of real life experiences, and everyday interactions, both formal and informal. • Time is planned each week for RE. • Content and appropriate knowledge, include prayer, a range of key topics including Christmas, Easter and other feasts, units of work and vocabulary that is specifically linked to learning in Religious Education. • Skills required by children are an ability to pray and know how to pray, and knowledge and skills that are age appropriate. • Monitoring children's learning was limited to conferences with children and some learning was reported to families. **Teaching Religious Education** • Teacher's role is to act as a role model and ministry of the Church in the Catholic school. • Confidence in teaching RE and this is linked to a long involvement in Catholic education and personal/life experience. • Teaching approaches/ strategies observed include questioning, discussion and sharing, hands-on experiences, stories, drama, art & craft, movement & music, excursions, interactions, and the use of props. Approaches to planning for RE are different from other curriculum areas, RE planning is based on diocesan guidelines.

In consideration of Research Question 7 for Teacher A: (1) To what extent do teachers' beliefs about teaching and learning relate to their beliefs about teaching a learning Religious Education? Teacher A's beliefs about learning and teaching for early childhood and Religious Education are related. There appears to be consistent beliefs about children's learning. For example, in Teacher A's early childhood beliefs, she viewed learners as being engaged in meaningful, hands-on experiences that requires a high level of interest. Play was also viewed as an important part of children's learning. With regard to Religious Education, children's active engagement and use of prior knowledge and experiences were important in assisting children to learn about Religious Education concepts and attitudes. Teacher A provided opportunities for children to 'play' and explore Religious Education concepts using 'real-life' experiences (e.g., excursions to Church), interactions with others and vocabulary specific to Religious Education.

With regard to sub-question 7 (a) Does the teacher's practice change between everyday, early childhood teaching practice and the teaching of Religious Education? For Teacher A, there were no significant changes between teaching practice for her everyday teaching practices and the teaching of Religious Education. Religious Education was treated in similar ways to other curriculum areas, such as Studies of the Society and Environment, time was set aside each week for a planned session and as incidental opportunities arose, Teacher A made connections between the children's interest and the concepts being studied.

Finally, in order to answer sub-question 7 (b) If it does change, why does this occur? Generally the practices for Teacher A were consistent. This teacher's extensive teaching experience with four to six year old children provided her with a high level of confidence. This was also evident in the teaching of Religious Education. Teacher A has taught in a Catholic school context for more than 15 years and has life experience as a Catholic, herself a student in 12 years of Catholic schooling. In consideration of question two, Teacher A's teaching practices for both early childhood and Religious Education were consistent. This was evident in the depth of planning and preparation of units and learning experiences that were developed, and the range of experiences that were concrete and age appropriate. The teacher communicated children's learning to families and the community through documentation panels displayed on the walls of the classroom. This aspect will be further explored in Section 6.6.

6.5.2 Teacher B

A synthesis of Teacher B's beliefs and practices are presented in this section. Tables 6.8 and 6.9 illustrate Teacher B's practice and related beliefs about early childhood learning and teaching and Religious Education learning and teaching.

Table 6.8

Teachers B's practice and related beliefs about early childhood learning and teaching that support/challenge practices

Teacher's early childhood practice	Associated beliefs about early childhood learning and teaching
• Classroom environment is compact and displays a large array of children's work. It is a homely environment and is set up to encourage children's independence. • Routines are well established and provide a predictable structure for the children in this classroom • Children have many opportunities to express themselves and to solve problems. The teacher does spend a lot of group times talking with limited opportunities for children to contribute to discussions. • Activities for children involve a range of child selected and directed, and teacher selected and directed experiences. The children are free to choose activities. The teacher spends time with small groups of children at a "have to" activity • Partnerships and interactions between staff, children and families are good. What does this mean? There was little evidence of family involvement in the classroom. Families are invited to participate in events such as liturgies. • Time for play is provided in large blocks and children have access to a range of materials both in and out doors. There are opportunities for large group and small group times and also for children to work alone or with a teacher. The schedule of the program is set but does contain some flexibility. Most of the time is spent indoors with some sessions each week outside.	**Children's learning** • Learners' attributes include children being confident, intrinsically motivated lifelong learners who learn when actively engaged in real, active and meaningful experiences. Children come to setting with prior knowledge and experience. • Ways of learning include hands on activity, learning occurs through play and interactions with others. • Factors that support learning include a program that is based on children's interests, having large blocks of time for play, partnerships that support learning in an informal setting. • Factors that restrict learning include being located in a formal school setting (in particular being situated so close to other classrooms), the school timetable, bells, and expectations to participate in school activities that may at times be not appropriate for young children. Children's disruptive behaviour can also impact on the program and on other children's learning and interactions. • Monitoring children's learning is done using a combination of observation, documentation of children's learning. Work samples are displayed for families, children and the community. • Critical knowledge that is valued by this teacher includes social skills. **Teaching young children** • Planning does not rely on curriculum documents and frameworks. It is based on children's interests and teacher's ideas. • Time was used flexibly and there were blocks of time for indoor and outdoor sessions. • Planning was based on themes and topics directed by the teacher. These are linked to general children's interests, for example dinosaurs and friendship. • Play was used as a teaching strategy and was supported by the environment and was view as an active learning process. • Teaching approaches included table top activities as well as a range of self selected activities such as collage, block play and sand play.

Table 6.9

Teachers B's practice and related beliefs about Religious Education learning and teaching that support/challenge practices

Teacher's Religious Education practice	Associated beliefs about learning and teaching Religious Education
• Classroom environment for RE remains the same as everyday early childhood practice • Routines for Religious Education are embedded in the program. There are times scheduled each week in the program for RE. Mostly RE includes a teacher lead discussion about a topic. Children are given opportunities to respond to content usually with a worksheet or through another type of table top activity. • Children are exposed to RE language in the program. • RE activities include stories, completing and colouring in on worksheets, drawing in response to stories, painting and creative arts in response to RE concept or topic. • Interactions between teachers, children and families are respectful and positive. They are supportive of a Catholic ethos. • Time is 'programmed' each week for Religious Education. It occurs mostly as an incidental experience. The teacher uses everyday interaction with children to build on values, beliefs and attitudes that are consistent with Gospel values.	**Religious Education** • RE was a body of knowledge with specific behaviours and attitudes related to the discipline. • Children's religious identity was developed by fostering as sense of belonging. The school has an important role of being the face of the Church for families. • RE includes supporting a way of life that was based in Gospel values and is evident in everyday interactions and the culture of the classroom and school. **Children's learning** • Prior experiences with religion were increasingly limited. • Ways of learning RE for young children occur in real life experiences as well as formal and informal teaching events. • Content and knowledge include topics that were based on units of worked developed from the diocesan guidelines, but evolve based on children's interests. • Skills that are important for early years' children include prayer and acquiring basic knowledge that was appropriate for this age group. • Monitoring children's learning was limited in RE and was not required by the diocese or school. **Teaching Religious Education** • Teacher's role in teaching RE was emerging. It was developing as the teacher became more experienced as a Catholic and working within a Catholic school. The teacher's confidence was developing. • Teaching approaches used to teach RE included discussion and sharing, hands on experiences, worksheets, excursions, interactions and the use of props to support teaching. Prayer table was a central feature of the classroom. • Approaches to planning for RE were different to other curriculum areas, linked loosely to diocesan guidelines. Topics were selected as children's interests emerged. No explicit expectation by school that RE be taught or reported on to parents.

With regard to Research Question 7 for Teacher B: (1) To what extent do teachers' beliefs about teaching and learning relate to their beliefs about teaching a learning Religious Education? There was evidence of a relationship between Teacher B's beliefs about learning and teaching for early childhood and Religious Education. Specifically, Teacher B's beliefs about children's learning were similar for both early childhood and Religious Education. For example, prior knowledge and experience were considered as critical factors that supported children's learning. This was consistent with Teacher B's beliefs about children's learning in Religious Education.

On examination of sub-question 7 (a), which considers how a teacher's practice changes between everyday teaching and the teaching of Religious Education, there was evidence of change for Teacher B. The most significant aspect was confidence in teaching. Specifically, this was related to the strategies and 'content' that was required for teaching Religious Education. This was evident in the differences observed in the planning and preparation of learning experiences for both early childhood and Religious Education. In early childhood practice, there was a range of experiences that were concrete and age appropriate. For Religious Education, there were mostly teacher-directed activities, teacher-lead discussions and occasional worksheets.

Finally, in order to answer sub-question 7 (b) If it does change, why does this occur? Teacher B's teaching practice was examined. There was evidence that change occurred between everyday early childhood practice and the teaching of Religious Education. This may be explained by Teacher B's experience with four to six year old children provided her with a high level of confidence in teaching everyday early childhood practice. This was not the case in the teaching of Religious Education. Teacher B has taught in a Catholic school context for six years and during this period made a decision to become a Catholic. Her experience of the Catholic faith had been as a parent to children attending Catholic schools and being married to a Catholic. Her understanding, knowledge and skills relating to being a Catholic, being a teacher in a Catholic school, and teaching Religious Education were still evolving. This aspect will be further explored in Section 6.6.

6.5.3 Teacher C

A synthesis of Teacher C's beliefs and practices are presented in this section. Tables 6.10 and 6.11 illustrate Teacher C's practice and related beliefs about early childhood learning and teaching and Religious Education learning and teaching.

Table 6.10

Teacher C's practice and related beliefs about early childhood learning and teaching that support/challenge practices

Teacher's early childhood practice	Associated beliefs about early childhood learning and teaching
• Classroom environment is well organised and is planned to facilitate independent learning. • Routines are well established for children and they provide a predictable structure for children • Opportunities were provided for children to use language and to solve problems collaboratively with others • Activities for children involve a range of child selected and directed and teacher selected and directed experiences. These are negotiated with the children and children are free to choose activities. • Interactions between staff, children and families are highly valued and are collaborative and democratic. • Time for play is provided in large blocks and children have access to a range of materials both in and out doors. There are opportunities for large group and small group times and also for children to work alone or with a teacher.	**Children's learning** • Learner's attributes were described as children learn when they are engaged in real and meaningful activities. Children learn via a range of modes, i.e. visual, oral, spatial etc. • Concrete materials, engagement in hands-on experiences, play, working in groups and used a range of modes including written, oral and play were all important ways of learning in the early years. • Factors that support learning include structure, a sense of adventure, interest, and high expectations for children's learning in a formal setting. • Factors that constrained learning include the formal school context and timetable, specifically the requirements of the academic curriculum and blocks of time that are fixed and allocated to literacy and numeracy, and the 'readiness' of children (specifically how children's behaviour impacts on their own and others learning). • Children's learning monitored using developmental continua and other diagnostic tools used with the outcomes outlined in the curriculum standards framework. Children's workbooks were used as an indicator of children's progress. • Critical knowledge and skills were academic and school skills with a particular focus on reading, writing, and number. **Teaching young children** • Planning used curriculum frameworks and school and system based planning documents. • Allocations of time were large blocks: mornings were for reading and writing activities, middle session was for mathematics and afternoons were generally for Science, Studies of Society and the Environment and Art. There was some flexibility in times and activities for the middle and afternoon sessions but the mornings were fixed. • Approaches to planning included collaborating with other colleagues. • Play was viewed as a 'bonus' or special activity. Free play was used as reward and children could play with construction materials such as Lego and blocks. • Teaching approaches included worksheets and workbooks, activities that were monitored by the teachers in reading/writing and mathematics exercise books, skills and ideas were explicitly taught by the teacher and a strategy of plan, do and review used.

Table 6.11

Teachers C's practice and related beliefs about Religious Education, learning and teaching that support/challenge practices

Teacher's Religious Education practice	Associated beliefs about learning and teaching Religious Education
• Classroom environment for RE is different from everyday early childhood practice. The children sat on the floor in a circle, the room was darkened and the atmosphere was created. The teacher's voice was soft and prayerful and children were encouraged to adopt a reverence consistent with the experience. • Routines for Religious Education are embedded in the program. Prayer at various times of the day, mostly thanking God for food, friends and safety. There are times scheduled each week in the program for RE. Mostly RE includes a teacher lead discussion about a topic and work from the text book. Children were given opportunities to respond to content usually with a worksheet or using the arts. There was evidence of children's artwork that was done in response to RE topics from the past. • Children were taught the vocabulary that was associated with the topics and expected to use it. For example, in the Baptism topic, children learned about the oils and the ritual and the meanings behind the symbols. Props and photos were included by the teacher to assist the children to make links with their own experiences. • RE activities include stories, completing and colouring in on worksheets, drawing in response to stories, painting and creative arts in response to RE concept or topic. • Interactions between teachers, children and families are respectful and positive. They are supportive of a Catholic ethos. Time is 'programmed' each week for Religious Education. It occurs mostly as part of the week's timetable and it is a requirement within this school to monitor children's learning in RE and report to families. The teacher uses everyday interactions with children and families to build on values, beliefs and attitudes that are consistent with Gospel values.	**Religious Education** • RE was viewed a body of knowledge with specific content, attitudes and behaviours that were particular to RE. RE was one of the 4 "r's" • RE was seen as the face of the Church to children and families. • RE occurred in everyday classroom interactions. **Children's learning** • Children's prior experiences with Church and religion were less common than in the past. • Formal and informal experiences were opportunities for children to learn about RE. Lessons that were planned to cover topics are the most frequent method for children to learn about RE. • Content included a range of topics determined by diocesan developed units and curriculum documents. Knowledge such as prayer was part of the RE program. • Skills required in this setting were an ability to pray, and having specific age appropriate knowledge related to the RE topics covered. • Children's learning was monitored and presented to families each semester in report card for each individual child. **Teaching RE involves** • Teacher's role was confident and experienced role model and a person who takes on the role of minister and fulfills the mission of the Church. • Teaching approaches included questioning, worksheets and workbooks, stories, drama and the use of props to make teaching more tangible for children. • Approaches to planning for RE were different to other Key Learning Areas. It was based on curriculum documents provided by the diocese and was included regularly in the timetable.

In consideration of Research Question 7 for Teacher C: (1) To what extent do teachers' beliefs about teaching and learning relate to their beliefs about teaching a

learning Religious Education? Teacher C's beliefs about learning and teaching for early childhood and Religious Education are related. There appears to be consistency and inconsistency between Teacher C's beliefs about children's learning. For example, in Teacher C's early childhood beliefs, she viewed learners as being engaged in meaningful, hands-on experiences that require a high level of interest. Specifically, children learned via a range of modes, for example visually, orally, and, spatially. Play was used as a reward for hard work in literacy and numeracy tasks. With regard to children's learning in Religious Education, there were no clear beliefs articulated about children's learning. Instead Teacher C discussed the importance of prior knowledge and experience of children as being important for Religious Education.

Teacher C's beliefs about teaching in everyday early childhood practice differed for the teaching of Religious Education. Teacher C viewed Religious Education as requiring different approaches to teaching, by comparison with other Key Learning Areas.

With regard to sub-question 7 (a) Does the teacher's practice change between everyday, early childhood teaching practice and the teaching of Religious Education? For Teacher C, the observed teaching practices for both early childhood and Religious Education were not consistent. In particular, this was evident in the different teaching approaches used in everyday teaching and those used specifically for Religious Education. For example, there were formal approaches for teaching reading, writing and mathematics in the Prep classroom, with children using workbooks and working to a detailed school based and state based program. There was little flexibility with regard to the use of time and experiences were preplanned and used from year to year to teach specific content and skills. By contrast, when it came to teaching Religious Education, the children sat in a circle on the carpet as opposed to sitting at desks in groups. The room was darkened to make a 'sacred' space. The demeanor of the teacher changed, from a teacher imparting knowledge and encouraging children to work in groups to complete tasks, to a teacher who was encouraging children to wonder and make connections with their own experiences. The depth of planning and preparation of units and learning experiences for both everyday practice and Religious Education were at a similar level; the school had a policy that supported this and the Principal regularly checked the planning done by teachers. The range of experiences for both everyday practice and Religious

Education involved the use of concrete and age appropriate materials. These materials were used by children and the teacher differently. The teacher communicated children's learning to families for Religious Education and other learning areas on the report card issued at the end of each semester.

Finally, in order to answer sub-question 7 (b) If it does change, why does this occur? Generally the practices for Teacher C were consistent. This teacher's extensive teaching experience with children, more recently with four to six year old children provided her with a high level of confidence. This was also evident in the teaching of Religious Education. Teacher C has taught in a Catholic school context for more than 34 years and has life experience as a Catholic, herself a student in 12 years of Catholic schooling. However, Teacher C commented that she did not think Religious Education had the same level of importance as Mathematics and English and did not warrant the same approach to teaching and learning as the 'key' areas of mandated curriculum. This aspect will be further explored Section 6.6.

6.5.4 Teacher D

A synthesis of Teacher D's beliefs and practices are presented in this section. Tables 6.12 and 6.13 illustrate Teacher D's practice and related beliefs about early childhood learning and teaching and Religious Education learning and teaching.

Table 6.12

Teacher D's practice and related beliefs about early childhood learning and teaching that support/challenge practices

Teachers' early childhood practice	Associated beliefs about early childhood learning and teaching
• Classroom environment is well organised and is planned to facilitate independent learning. There are a range of activities prepared by the assistant that are placed on tables in readiness for children's arrival. • Routines are well established for children and they provide a predictable structure for children. The school bells do not impact on how time is spent in this setting. • Opportunities are provided for children to use language and to solve problems collaboratively with others. Group times are generally teacher-lead and children respond to questions asked by the teacher. Children's ideas are sought when a brainstorming strategy is used by the teacher. • Activities for children involve a range of child selected and directed, and teacher selected and directed experiences. These are negotiated with the children and children are free to choose activities. There are some 'school preparation' activities that must be done by each child during each indoor or outdoor session. • Interactions between staff, children and families are generally positive. Families are encouraged to participate in the program. • Time for play is provided in large blocks and children have access to a range of materials both in and out doors. There are opportunities for large group and small group times and also for children to work alone or with a teacher.	**Children's learning** • Children learn best when engaged in real life, experiences and when children are busy. • Play is the best way for children to learn, when they are hands-on with an activity. • When children are interested they are more willing to learn, they need time that is not interrupted. There are opportunities for children to be part or groups, big and small and to learn with friends or with an adult. • Being part of a school, the school timetable and bells sometimes impact on what happens here. Children's behaviour and attention impacts on their learning. • Observations are used to monitor children's learning, mostly anecdotes in children's files. • Social skills and being able to get along with others is the most important knowledge and skills for children in the early years. Preparation for school in this year is important: fine motor skills, gross motor skills and co-ordination, being a member of a group and knowing basics such as alphabet, numbers, shapes and colours. **Teaching young children** • Planning involves use of curriculum documents as a reference. • Time is flexible, but there is a pattern to each day which makes it easy for children to predict what will happen. • Themes and topics selected by the teacher is the main approach to guiding planning. • Play is the way young children learn, by being actively involved in the program. • Worksheets are frequently used for children to prepare for school these are included on table top activities prepared each day for the children.

Table 6.13
Teacher D's practice and related beliefs about Religious Education learning and teaching that support/challenge practices

Teachers' Religious Education practice	Associated beliefs about learning and teaching in Religious Education
• Classroom environment for RE remains the same, with the exception of a small prayer table with candle and cross being placed in the centre of the prayer circle. • Each day, children lead the prayer circle and share a prayer with the other children. They are responsible for setting up the prayer table with another child. • Children use language that is specifically intended to talk to God in this session. • Activities related to RE include the prayer session, occasional participation in school liturgies, and community action e.g., visits to local nursing home. • Interactions and modeling of "Christian" attitudes and behaviour was observed. • Time was set aside each day for prayer circles. No other formal time was allocated specifically for the teaching of RE.	**Religious Education** • RE was viewed as the responsibility of parents. **Children's learning** • Being about to pray and talk to God was what children needed to know about and how to do. • Informal awareness of children's learning, no need to formally report learning in RE to families. **Teaching Religious Education** • Teacher's role in teaching RE was limited. This was considered the responsibility of parents, families and the Parish. • Teacher's own understanding of RE was developing, linked to personal experiences and understanding. • Lack of confidence in teaching RE content. • Interactions and daily prayer circles were only opportunities for RE in this classroom. • Circle time each day is used for praying for intentions, lighting a candle and inviting God to be with children for the day. The day was concluded with a prayer of thanks and blessing.

In consideration of Research Question 7 for Teacher D: (1) To what extent do teachers' beliefs about teaching and learning relate to their beliefs about teaching a learning Religious Education? Teacher D's beliefs about learning and teaching for early childhood and Religious Education appear to be related. For example, in Teacher D's early childhood beliefs, she viewed learners as being engaged in meaningful, hands-on experiences that require a high level of interest. Play was also viewed as an important part of children's learning. With regard to Religious Education, children's learning included becoming aware of all things related to Religious Education via informal opportunities presented in the classroom interactions. Teacher D's approach to teaching used topics or themes that built on

children's interests. Play was used as an approach to teaching. However, when it came to teaching Religious Education, the teacher believed this was the responsibility of the families and Parish. Daily prayer was observed as the way in which religious activity was enacted in Teacher D's classroom.

With regard to sub-question 7 (a) Does the teacher's practice change between everyday, early childhood teaching practice and the teaching of Religious Education? For Teacher D, there were no significant changes between teaching practice for her everyday teaching practices and the teaching of Religious Education. The only exception to this was that Religious Education was not an area actively taught by this teacher on a daily or weekly basis. When she did include Religious Education in her program, it was teacher-directed and children spent a lot of time listening. Finally, in order to answer sub-question 7 (b) If it does change, why does this occur? This question can only be partially answered for Teacher D. This teacher's experience with four to six year old children provides her with a level of confidence in teaching everyday early childhood practice. However, this was not the case in the teaching of Religious Education.

Teacher D has taught in a Catholic school context for only two years. She became a Catholic when she married and the majority of her experience as a Catholic has been as a parent to children attending Catholic schools and being married to a Catholic. Her understanding, knowledge and skills related to being a Catholic, being a teacher in a Catholic school, and teaching Religious Education were still evolving. Teacher D commented that she was not confident in teaching Religious Education. In consideration of question two, Teacher D's teaching practices for both early childhood and Religious Education were not consistent. This was evident in the differences observed in the planning and preparation of learning experiences for both early childhood and Religious Education. In early childhood practice, there was a range of experiences that were concrete and age appropriate. For Religious Education, there were mostly teacher -directed activities, teacher lead discussions and prayer sessions. Teacher D did not communicate children's learning in Religious Education to families. Whereas in early childhood practice, children's learning was presented in a portfolio at the end of the school year. This aspect will be further explored in Section 6.6.

6.6 Case summaries

The four case studies presented in this chapter, were purposefully selected for this study because they represented four categories. These categories were delineated from the analysis of data from Phase One of this research. Namely, these categories were high emergent and high ministry, high emergent and high integrated, high traditional and high ministry and high traditional and high integrated. Figure 6.1 illustrated how these cases were representative of the four categories. Each of the four cases was diverse and represented a range of life and teaching experiences. This section presents a summary of the data and revisits the four categories based on the evidence presented and explores whether, following the observation visits, teachers' practice fits with the categories identified from the administration of the ECTBLTRE instrument.

This section highlights the stated beliefs and practices of the four cases and identifies a range of contextual and personal factors that impact on consistent or inconsistent relationships between teachers' beliefs and practices with regard to everyday practice and Religious Education. Table 6.14 presents a data summary table addressing the issues outlined above.

Table 6.14

Case summaries of the four teachers including beliefs, practices and personal and contextual factors.

Teacher background and current context	Beliefs	Practice	Factors impacting on beliefs and practice
TEACHER A • Female • 46-55 years • 15 years teaching in Catholic school • 20 years experience working with three to six year old children • Bachelor of Education (Early Childhood) • Early years' classroom, four to six year children in the year before formal schooling. • Classroom is physically located at the end of other buildings, own playground area, separate from rest of the school.	**Early Childhood teaching** High emergent **Religious Education approach** High ministry	**Early Childhood** • Responsive to children • Based on planning done in advance • Linked to Curriculum Standards Framework outcomes • Use of a range of strategies including discussions, self selected activities, "have to" activities, visual arts are supported in this environment and viewed as a means of expression • Values partnerships with families, children and colleagues • Documentation of children's learning is presented on walls • Confident teaching in this setting with this age group • Play is valued and used as a learning and teaching strategy **Religious Education** • Based on diocesan guidelines, topics used encourage children to wonder about the topics and relate to their own experiences. • Uses age appropriate experiences that draw on children's prior knowledge and experiences, including visual and dramatic arts, group work and discussions • Confident about content, knowledge and skills related to Religious Education • Role as teacher is to share Gospel values through interactions but to teach specific topics as per RE guidelines • Three half hour sessions planned and used each week School based monitoring of RE program	**Extrinsic** • School administration • Families • Children • Colleagues • Professional networks • Education and teaching experience **Intrinsic** • Beliefs about learning and teaching • Confidence • Real and perceived expectations

Teacher background and current context	Beliefs	Practice	Factors impacting on beliefs and practice
TEACHER B • Female • 36-45 years • Six years teaching in a Catholic schools, other teaching experience in state schools and work as a Psychologist • Bachelor of Education (Primary) • Bachelor of Psychology • Teacher of four to six year old children in Catholic school • Classroom is physically separated from the rest of the school, own outdoor play area.	**Early Childhood teaching** High emergent **Religious Education approach** High integrated	**Early Childhood** • Teaching approaches are generally responsive to children • Teaching and learning are constructed with children • Teacher talk time is frequent at group times • Topics and themes are generated by the teacher. Children's work within theme is displayed in the room. • Interactions with children and families are warm and genuine • Play is valued in the program, children have large blocks of time for active learning with a range of open ended materials • Occasional use of worksheets within topics and to prepare children for schooling experiences **Religious Education** • Follows diocesan recommended guidelines in planning, but delivery of material is less formal than plans. • RE included in interactions and general topics that are discussed with whole groups and small groups. • Explicit links are made with RE concepts, for example being kind to others is what Jesus would want for us. • Visits to church and participation in liturgies are regular events in the program • Worksheets/ black line masters used to respond to topics covered • Formal time planned each week, often does not occur as planned • Teacher's role is to share good news and to model "Christ-Like" behaviour in all interactions • No school based monitoring of program	**Extrinsic** • School • School administration • Classroom structure • Families • Colleagues • Professional networks • Education and teaching experience **Intrinsic** • Beliefs about learning and teaching • Confidence • Real and perceived expectations

Teacher background and current context	Beliefs	Practice	Factors impacting on beliefs and practice
TEACHER C • Older than 55 years • Bachelor of Education (Primary) • Teacher in Catholic schools for 34 years • Currently teaching five to six year old children in early years classroom • Classroom is physically located within school, adjacent to other classrooms .	**Early Childhood teaching** High traditional **Religious Education approach** High ministry	**Early Childhood** • Formal teaching of reading, writing and mathematics based on outcomes based Curriculum Standards Framework • Children's work in books and work sheets is marked and monitored. • Play is used as a 'free' time activity or reward for hard work **Religious Education** • Use of diocesan based curriculum documents, a workbook that children have and take home weekly to share with families • RE is a planned, four x 30 minute sessions a week • School based monitoring of content, end of semester reports are provided for families • Lessons are conducted on the floor, usually in a circle with props to assist children to make connections with their own experiences • Children encouraged to ask questions and make comments • Teacher's role is to share the message of the Gospel in the way presented in the text; questioning of content is not encouraged, the facts are presented	**Extrinsic** • School • School administration • Classroom structure • Families • Children • Colleagues **Intrinsic** • Real and perceived expectations

Teacher background and current context	Beliefs	Practice	Factors impacting on beliefs and practice
TEACHER D • 26-35 years age group • Bachelor of Education (Early Childhood) • Teaching in Catholic school Two years, other teaching in state education system six years.	**Early Childhood teaching** High traditional **Religious Education approach** High integrated	**Early Childhood** • Play-based program, large blocks of time for play. • Teacher's role is to observe and to support children's learning: Stand back and not interfere with interactions • Praise for children's efforts and these are valued and used to promote positive outcomes with other children • Routines are important and they provide predictability for children • Table top activities are used inside to focus on fine motor development. Outdoor activities promote development in gross motor areas. • Large, small and individual groupings used for learning experiences **Religious Education** • No school-based monitoring of RE • No planned time for RE • RE is the family's responsibility • Interactions and social learning experiences provide opportunities for Gospel values to be taught in informal ways • Prayer circle a daily event used to welcome Jesus into classroom each day	**Extrinsic** • School administration • Classroom structure • Families • Colleagues **Intrinsic** • Beliefs about learning and teaching • Confidence • Real and perceived expectations

In summary, the above tables present evidence of both consistent and inconsistent practice of the four teachers. In order to explain the inconsistency between stated beliefs and practices, with a specific focus on the change between early childhood practice and the teaching of Religious Education, consideration must be given to the range of personal and contextual factors that impact on teachers.

Teacher A's observed practices were generally consistent with her stated beliefs. This teacher was confident and experienced and worked in a supportive workplace. This teacher has continued to access formal education, including further study leading to formal qualifications and she regularly participates in professional development. She is a member of a professional network of like minded teachers. Early childhood practices were consistently used in the curriculum area of Religious Education. The results from the instrument in Phase 1 suggested that Teacher A had a Ministry orientation with regard to the teaching of Religious Education. Although there was some evidence to support that in practice, there was more evidence of an integrated or educational approach to teaching Religious Education, hence a shift in position (See Figure 6.2). There were no changes to everyday early childhood practice to teach Religious Education in this classroom. In this case, the Teacher A's education, life and teaching experiences may be contextual factors that explain some of the differences between beliefs and practices. This aspect is worthy of further investigation.

Similarly, Teacher B's practices and stated beliefs were consistent. Teacher B's beliefs about early childhood teaching were emergent. In practice, there were some occasions when her approach was more traditional and teacher -directed. For example, Teacher B spent a lot of time talking and the content of the program was decided by the teacher. With regard to Religious Education, Teacher B's beliefs had an integrated orientation. This was consistent with observed practice. Religious Education was taught informally and often integrated into everyday interactions and discussions. At times, when Religious Education was the focus of the program, the teacher encouraged children to be respectful and reverent particularly when prayer or liturgies were occurring. Much of the Religious Education in this classroom involved social action, caring for others and sharing simple Gospel messages.

Teacher C had a traditional orientation to teaching early childhood. This was observed in formal language/literacy and mathematics blocks. When it came to

Religious Education, the teaching approaches and 'formal' teaching was not evident. Teacher C had a ministry orientation on the instrument. However, in practice the nature of the Religious Education had a more educational approach with a focus on outcomes, requirements of curriculum documents and reporting children's learning to families. Teacher C's practice for Religious Education did change from general practice. In her own words, Religious Education "is really not like a curriculum area, it has to be different!" There were similarities between Teachers A and C. For example, both teachers had more than 25 years teaching experience. The main differences were in their orientation to learning and teaching in early childhood. The difference was probably also explained by their contexts and life experiences. Teacher A's qualifications were early childhood where as, Teacher C had a primary teaching qualification. They both had a Ministry orientation for Religious Education. Within their contexts, both of the dioceses had extensive support and professional development for teaching Religious Education. Their initial teacher training and life experiences presented challenges and conflicts between their stated beliefs and practices. This aspect is worthy of further investigation.

Teacher D's early childhood practice was different from her stated beliefs. With a traditional orientation on the instrument, in practice her approach was more child-centred and play based. Her approach to teaching Religious Education was consistent and it was integrated, in her limited way, into everyday experiences. Teacher D's practice differed in early childhood practice. This was reflected in the contextual factors of this teacher. In her context, there was limited support and professional development for early childhood teachers, and the responsibility for this generally lay with individual teachers. With regard to her Religious Education program, a lack of support and mentoring from school administration may have contributed to the teacher's limited inclusion of specific Religious Education content into the program. This aspect is worthy of further investigation.

In summary, the four cases presented have responded to the primary questions of the thesis. These questions included, (1) Does the teacher's practice match their beliefs? (2) Does the teacher's practice change with everyday early childhood teaching and the teaching of Religious Education? (3) Why does practice change? The four cases presented have provided evidence of the complexity of understanding beliefs and practices of teachers. There were no simple answers; teachers' beliefs are not easily categorised and appear to be different in practice due to the complex

social realities of classrooms. Figure 6.2 graphically illustrates the final categorization of the four cases based on all the data collected and analyzed.

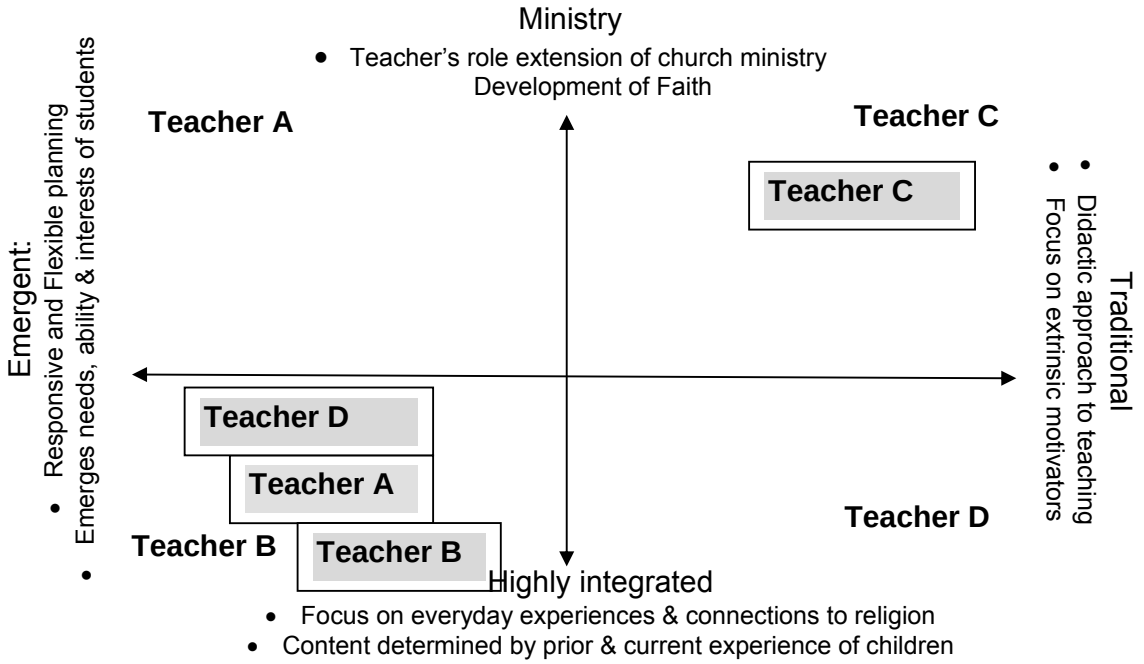

Figure 6.2. The four teachers' positions on the continua post observation of early childhood and Religious Education practice.

Interestingly, there have been some shifts in where the teachers are situated following the data collection and analysis. Teachers A, B and C have remained in the same area for early childhood learning and teaching. Teacher A has changed for Religious Education. Teacher D changed for both Early Childhood and Religious Education. It was conjectured that two reasons may exist for the shift in position. First, these differences may be explained by the processes employed in collecting data which enabled the research to probe individual teachers' understandings in more depth about what constituted their beliefs about learning, teaching and Religious Education. Second, these shifts possibly represent a difference between teachers' stated beliefs about learning, teaching and Religious Education and what happens in their daily classroom practice. Table 6.14 highlighted several significant contextual and personal factors that may explain the variance between beliefs and practices in each case. The shifts in each case are described below.

Teacher A in the original categorization was high emergent and high ministry. Following the data collection and analysis, she has been reclassified as a high emergent (Early Childhood) and medium integrated (Religious Education). Her early

childhood practice remains constant, but her Religious Education approach has shifted. Teacher A has extensive teaching experience and this may enable her to have some clarity about what she does in practice and why. It could be suggested that Teacher A's Religious Education curriculum documents may have lead to a shift in the area of Religious Education. These documents supported an integrated approach to teaching Religious Education. Teacher A's Religious Education curriculum documents were the same one used by Teacher B. The expectation for each teacher and the implementation varied. Teacher A worked in a supportive school environment and worked collaboratively with other colleagues when planning learning experiences. There was a clear expectation by the school administration that the Diocesan guidelines were used and reported on. Teacher A had been supported with regular professional development in the teaching of Religious Education. In practice, Teacher A, integrated Religious Education concepts into everyday classroom activities and used the children's experiences as a starting place for teaching.

Teacher B remained in a consistent position pre and post Phase 2 data collection and analysis. Teacher B used incidental opportunities to help children make links and there was evidence of Religious Education concepts integrated into the program. Teacher B had little support from her administration team for the teaching of Religious Education and very few opportunities for professional development. Teacher B did not have the same level of confidence for teaching Religious Education as she did with everyday early childhood practice. Teacher B's strong early childhood approach which was child-centred and based on an emergent style of curriculum was evident in her teaching practice.

Teacher C also remained in a consistent pre and post Phase 2 data collection and analysis. This teacher also has extensive teaching experience and it was conjectured that this provide some clarity about what she does in practice and why. Teacher C has remained high ministry for Religious Education. It was conjectured that the curriculum documents used in this Diocese are grounded in the catechetical approach to Religious Education. This approach views Religious Education as a 'ministry' rather than as an academic subject. The professional development provided for this teacher and curriculum documents support this teacher's ministry perspective.

Teacher D in the original categories was high traditional (Early Childhood) and high integrated (Religious Education). Following the data collection and analysis Teacher

D was categorised as high emergent and medium integrated. Teacher D did not teach Religious Education using the recommended units for her Diocese. There was ambiguity expressed by this teacher about what and how to teach Religious Education in her classroom context. Her approach was the most informal of all four teachers and she focused on promoting positive social interactions and community building in her classroom. There was no expectation from her school administration team that she teach Religious Education and she received little support, and in two years had not attended any professional development. The shift from high integrated to medium integrated was due to the limited amount of time dedicated to the teaching of Religious Education and value assigned by the teacher.

6.7 Chapter Summary

This chapter presented the results of Phase Two of the research. This was the analysis of qualitative data that was collected from multiple sources. In summary, there were three major areas presented in this chapter. First, each of the four cases was introduced and their case studies highlighted. Second, the analysis of the data was presented in a cross-case analysis. Teachers' stated beliefs and observed practices were outlined. These included: beliefs and practices about learning, teaching, Religious Education, learning and teaching in Religious Education and factors that impact on beliefs and practice. Third, it responded to the specific focus of this chapter. That was to answer the primary questions of the thesis, that is (1) Does the teacher's practice match their beliefs? (2) Does the teacher's practice change with everyday early childhood teaching and the teaching of Religious Education? (3) Why does this change occur?

In response to the primary questions of this chapter and thesis, generally teachers' practice does match their beliefs. This was evident in the tables presented earlier in the chapter. There was a shift that occurred between Figures 6.1 and 6.2. Two out of the four cases shifted from their original position. It was conjectured that the context of the teachers played a part in this shift. Specifically, the lack of professional in one case and support from school administration (Teacher D) meant that this teacher was not confident about teaching Religious Education and viewed her role in a limited way. By contrast, Teacher A was confident about teaching Religious Education and her approach was generally consistent across everyday practice and Religious

Education was integrated into program. Teacher A moved from her earlier position of ministry to integrated approach to Religious Education. It was conjectured that this was due to the type of curriculum documents used in the Diocese, the individual teacher's interpretation and teaching of the documents, access to professional development and a network of colleagues to provide opportunities for reflection and discussion.

The following chapter presents a summary of the research, a discussion of the findings and links between the findings and literature are highlighted, conclusions of the research are delineated and recommendations for future research are outlined.

CHAPTER SEVEN

DISCUSSION AND CONCLUSIONS

7.1 Introduction

This chapter presents the findings of the corpus of data collected for the research project, early childhood teachers' beliefs about learning and teaching with regard to Religious Education learning and teaching. This research was conducted in early childhood classrooms in Australia. In this chapter, the responses provided by participants from the Phase One instrument are examined with the rich qualitative data collected in Phase Two. The discussion contained in this chapter is guided by the seven research questions of this project.

The seven research questions remained the focus of the research:

(1) What are early childhood teachers' beliefs about children's learning?

(2) What are early childhood teachers' beliefs about teaching?

(3) To what extent do teachers' beliefs differ according to state, age, gender, qualification and number of years teaching?

(4) What are early childhood teachers' beliefs about children's learning in Religious Education?

(5) What are early childhood teachers' beliefs about teaching Religious Education?

(6) To what extent do teachers' beliefs about learning and teaching differ according to curriculum document type, age, gender, qualification and number of years teaching?

(7) To what extent do teachers' beliefs about learning and teaching relate to their beliefs about teaching and learning Religious Education?

The hypothesis of the thesis had three parts namely, (1) An exploration of the relationship between teachers' beliefs and practice, (2) Observation of whether a teachers' practice changes between everyday early childhood teaching and the teaching of Religious Education, and, (3) If change does occur, an exploration of the reasons for this. This hypothesis is discussed in this chapter.

In this chapter, four main aspects of the research are discussed. These are: (1) the advantages of the methods used for this study; (2) what was learned about teachers' beliefs about early childhood learning and teaching, Religious Education learning and teaching, and the factors that impact on teachers' classroom practice; (3) how the findings of this study can be placed in the context of the current literature and a brief examination of the implications of this research; and, (4) recommendations made for future research in the area of teacher beliefs and practice and Religious Education.

Apart from this introduction, there are four main sections in this chapter. Section 7.2 presents a summary of the research, recaps the previous six chapters, and identifies the limitations of the research. Section 7.3 addresses the research questions and provides a discussion of the findings. Section 7.4 delineates conclusions of the research. Section 7.5 outlines recommendations for future research and states the implications of the study.

7.2 Summary of the research findings

This study was set within the context of Australian Catholic early childhood classrooms during a time when early childhood education was under the spotlight for being an important foundation for children's lifelong learning. Education is becoming increasingly politicised and the subject of research worldwide (Somekh & Lewin, 2005). As highlighted in the context and literature review chapters, understanding teachers' beliefs about learning and teaching, and the relationship between beliefs and classroom practice was the focus of this research. The research also highlighted contextual factors that impacted on teachers' ability to teach according to their beliefs (Chan, 2003; Charlesworth, Hart, Burts, & Hernandez, 1991; Charlesworth, Hart, Burts, Thomasson, Mosley & Fleege, 1993, Einarsdottir, 2001). The research findings and the literature suggested that teachers' do not always use practice that was consistent with their beliefs (Stipek & Byler, 1997). Studying teachers' beliefs and practices provided an opportunity and possibility for teachers involved to reflect on their own beliefs about learning and teaching, and their practice, and potentially presented an opportunity for professional learning. As suggested by Wood and Bennett (2000) this was a challenging and confrontational endeavour.

A combination of factors were examined that influenced teachers' personal and professional beliefs about early childhood learning and teaching, and Religious Education learning and teaching. Some factors impacting on practice may have originated from both intrinsic and extrinsic factors (e.g. Bean, Fulmer, Zigmond & Grumet, 1997; Cassidy & Lawrence, 2000; Spidell-Rusher et al., 1992; Vartuli, 1999). Examples of these factors were highlighted in Chapters Five and Six. These included the teacher's own schooling experiences, level of qualification, age, number of years teaching experience, confidence and other factors found in their current teaching contexts.

The threefold purpose of this study was (a) to articulate teachers' beliefs about early childhood learning and teaching, and Religious Education learning and teaching by illuminating their current practices; (b) to highlight the factors that influence teachers' behaviour; and, (c) to promote current practice in a range of contexts. The exploration of the hypotheses questions provided a framework for enacting the purpose of the study.

This study was conducted using a mixed-methodology, sequential design. The first step undertaken was to design and pilot an instrument specifically for this study. The analyses of the Pilot Study lead to modifications of instrument prior to its use in the Main Study. The Main Study had two phases: Phase One was quantitative and Phase Two was qualitative. Phase One used an instrument administered to a large number of teachers in Catholic schools in Australia. Descriptive and inferential statistics were used for data analysis, providing descriptive results and pointing to relationships that exist between teacher beliefs and demographic factors. The results suggested that a range of teacher beliefs exist. The analysis of this data informed the selection of participants for Phase Two and shaped the design of the semi-structured interview in Phase Two. Phase Two included four teachers purposely selected for observation visits. Data was collected from multiple sources. These included: (1) ECERS-R instrument, (2) digital photographs, (3) transcripts from audio-taped classroom observations and field notes, (4) a semi-structured interview, and, (5) artifacts collected from each teacher. The qualitative data was analyzed using a grounded theory method. A range of teacher beliefs were highlighted in the results of Phase One and were examined in the teaching practice of the four participants.

Early childhood teachers working with four to six year old children in Australian Catholic schools were the targeted population for this study. Twenty five Diocesan

Education Offices consented to teachers in their diocese participating in the study. These were from all states and included one Australian territory. The instrument was mailed to Principals of 1172 schools and then passed onto early childhood teachers working in Preschool/ Kindergarten/ Prep/ Reception and Preprimary classrooms. After the instrument was administered, a total of 540 valid questionnaires were received from early childhood teachers in Catholic schools, representing a 46% response rate. Data collected by the instrument was analyzed using SPSS, version 11.0.

For Phase Two of the study, the four participants were selected purposefully as they represented four categories established in Phase One of the study. These categories were: high emergent – high integrated; high emergent – high ministry; high traditional – high integrated; and, high traditional-high ministry. Each participant agreed to an observation visit, semi-structured interview, and supplied relevant artifacts to the researcher to demonstrate their approach to planning for children's learning and their approach to teaching. The observation notes, some transcripts, planning documents and the transcripts of the semi-structured interviews were analyzed using a grounded theory method.

Description of participants' backgrounds

Included in this section is a summary of the participants' backgrounds: gender, age, educational qualifications, teaching experience, and contextual information. Eighty eight percent of the participants in Phase One were female, and fifty-two percent were aged between 26 and 45 years of age. The highest level of qualification was Masters Degree with 2% and the majority of teachers held a Bachelors Degree, representing 61% of the group. Twelve percent of teachers held a three year Diploma of Teaching qualification. Sixty percent of teachers had been teaching for more than six years, with the largest group being 11 to 20 years at 22.8%. Similar statistics were seen in the number of years teaching Religious Education.

As no male teachers volunteered to participate in Phase Two of the study, all the participants from Phase Two of the study were female. The ages of the participants ranged between 26 to 55 years. The highest level of qualification was a Bachelor of Education. One of the four participants also held an undergraduate Psychology degree. All the teachers had more that 10 years teaching experience, with one of the four having 35 years experience. Only one participant had taught in only Catholic schools for the majority of her teaching career and that was the teacher with the

longest years of teaching. One participant had only been teaching in the Catholic education system for two years at the time of the study. Two of the four teachers had recently become Catholic. This was due to personal circumstances, namely being married to Catholics and deciding to raise children in the Catholic faith.

Findings on Research Questions

The findings of this study are summarised in this section. This research used both quantitative and qualitative methods to collect and analyze data in a mixed-method design. Each research question is discussed in this section.

Question one: What are early childhood teachers' beliefs about learning?

Question two: What are early childhood teachers' beliefs about teaching?

This section presents the findings of both Phase One and Phase Two for the above questions. With regard to question one, play was a consistent belief amongst teachers in Phase One. The four teachers in Phase Two confirmed this, but each had a slightly different view about what play was, how it supported children's learning, and how it was used in their program. For example, Teacher A used play as a deliberate strategy for supporting learning and teaching. Teacher B planned for large blocks of time for play and used it to gain insights into children's thinking. Teacher C used play as a reward for hard work. Teacher D provided an environment and opportunities for children to play.

Contexts for learning scale was not considered a reliable scale from Phase One, but proved a source of rich data in Phase Two. Teachers in Phase Two identified qualities of learners, ways of learning and factors that support and constrain learning as contextual factors. For example, Teacher A believed interest was important for children's active engagement in concrete, learning through play and interactions with others. She suggested that collaborative relationships with children, families, the school and the community were essential factors that were supportive of learning. Teachers A and B identified the formal school setting as a constraint on children's learning. Teacher B commented that children's prior knowledge was important and engaging children in hands-on, learning through play. Teacher C commented that children learn via a range of modes, and working in groups with others was an important method of learning. Structure and a predictable environment were

important for children's learning. By contrast, Teacher D viewed structure as a negative and viewed children as sponges, and ready to learn.

With regard to question two, there were interesting similarities and differences between the data collected in Phase One and Two. Teaching approaches were identified in both phases of the research and were evident in both data sets. In particular, teachers adopted a range of approaches in everyday classroom practice, and the reasons for these decisions varied. Differences evident from the two data sets were the skills identified by teachers as being important to develop in young children before commencing year one.

Specifically, two contrasting approaches to teaching were identified in Phase One. These were emergent and traditional. The data collected in Phase Two suggested that these two approaches existed, but teachers' realities were more complex than just acting within only one approach. Teachers' practice was affected by the type of curriculum documents that were mandated within their context, teaching approaches supported by the curriculum documents, and individual teacher's interpretation and implementation of the program. For example, Teachers A and C operated within a context that had clear curriculum frameworks, the school environment was supportive of these and there was a high level of accountability. Teachers A and C were supported with regular Professional Development which supported curriculum implementation. By contrast, Teachers B and D's curriculum documents were less formal, and there was limited accountability within the school environment. These teachers had limited access to professional development that supported their curriculum development and implementation. The results for these two questions are summarised and presented below in Table 7.1.

Table 7.1

Summary of results for questions one and two from Phase One and Two

Phase One- Quantitative	Phase Two- Qualitative
Emergent approaches to teaching *this approach was most frequently believed by most teachers* Skill development beliefs *were prevalent with most teachers.* Play/Active learning beliefs *were valued as a teaching strategy.* Traditional factors impacting on learning *was a common belief of teachers.* Contexts for learning *were analyzed but the scale was not considered reliable.*	Learning categories • Learner's attributes • Ways of learning • Factors that support learning • Factors that constrain learning • Monitoring children's learning • Critical knowledge and skills for children Teaching categories • Planning (curriculum) • Time • Approaches to planning • Play as a teaching strategy • Teaching approaches

Table 7.1 highlights some significant similarities, differences and new knowledge uncovered when looking at the data collected using a variety of methods. With regard to question one, which investigated teachers' beliefs about learning, Phase One and Two revealed a number of similarities. Phase Two enabled a more in-depth probe of teachers' beliefs about learning. The similarities included the value of play and active learning and contexts for learning. An aspect not addressed in the instrument used in Phase One was ways of learning and learning styles.

Question 3: To what extent do teachers' beliefs about teaching and learning differ according to state, age, gender, qualification and number of years teaching?

In response to Question 3, the findings from Phase One and Two are presented in this section. Each scale from Phase One is presented in a discussion with the data collected from Phase Two.

With regard to both the emergent and the active learning scales, teachers from Queensland were more in agreement with this scale than there counterparts in New South Wales, Victoria and Tasmania. This was confirmed in the Phase Two data. For example, Teachers B and D were both from Queensland. Teacher B and D were observed using more emergent approaches to teaching that supported active learning, and this was supported by the curriculum documents available and used in their context. Teachers A and B were identified as being more highly emergent from the Phase One data. The Phase One data also suggested that female teachers were more likely to be in agreement with this approach to teaching. As there were no male teachers involved in Phase Two, it was difficult to confirm or explore this aspect further. The data collected from Phase Two did confirm that personal and professional contexts impacted on teachers' beliefs and practices.

With regard to the skill development and the traditional factors scale, teachers in Queensland, New South Wales and Victoria were more in agreement with this scale than counterparts in South Australia. There were differences observed between the teaching practices of the four teachers observed in Phase Two. Teaching approaches of Teachers C and D were categorised as being more traditional from the Phase One data. However, following the data collection process of Phase Two in which their approaches to teaching were interrogated by the researcher, it appeared that Teacher D had shifted, whilst Teacher C remained in the original position. It was conjectured that the curriculum documents and expectations about the implementation of these impact on the teaching practice.

For example, Teacher C worked in a context which was the most 'formal' of the four cases, the mandated curriculum was prescriptive and there was an expectation that teachers in this context taught in a particular way and included specific skills and content. This supported Teacher C's more traditional beliefs about teaching. Her teaching was supported by regular access to Professional Development. By contrast, Teacher D was categorised as having more traditional beliefs about teaching after Phase One. However, following the data collection in Phase Two, her approach was described as more 'informal' or emergent. It was conjectured that an absence of 'mandated' curriculum with specific expectations of school administration and a lack of regular professional development may have lead to a 'shift' between Teacher D's beliefs and practices. Teacher A's position in Phase Two changed from the original position after Phase One. In Phase One, she was categorised as a high ministry and

high emergent. In this case, Teacher A has clear curriculum documents for both early childhood and Religious Education and these documents are supportive of her position at the end of Phase Two. Teacher A also had access to regular Professional Development and was an active member of a network with colleagues in other early childhood settings.

The number of years teaching also affected the teachers' beliefs about skill development. The results suggested that teachers with fewer years teaching experience (e.g., 3-5 years), were more likely to have traditional views about learning and teaching than teachers with more experience (e.g., 11-20 years). On the traditional factors scale, the age of teachers affected their views. For example, older teachers (e.g., 46-55 years) were less likely to support this scale than their younger counterparts. This was not able to be confirmed with the Phase Two data as all four cases had more than ten years experience and were older than 35 years. The following table summarises the findings for Question three from Phase One and Two.

Table 7.2

Summary of results for question three from Phase One and Two

Phase One- Quantitative	Phase Two- Qualitative
Emergent approaches to teaching scale, there were differences in state and gender. Skill development scale highlighted there *were differences in state and number of years teaching.* Play/Active learning scale, there were differences in *state and gender.* Traditional factors scale *was affected by state, age and gender.* Contexts for learning scale, there was no difference b*y state, age, gender, qualification or number of years teaching.*	Intrinsic factors • Beliefs about learning and teaching • Confidence • Real and perceived expectations Extrinsic factors • School administration • Families • Children • Colleagues • Professional networks • Education and teaching experience • School • Classroom structure

Table 7.2 highlights some significant similarities, differences and new knowledge uncovered when looking at the data collected using a variety of methods. Question three investigated the factors that impact on teachers' beliefs about learning and teaching; and the extent of the impact. Phases One and Two revealed a number of similarities. Phase Two enabled a more in-depth probe the factors that impact on each teachers' ability to enact their beliefs in everyday classroom practice.

> *Question 4: What are early childhood teachers' beliefs about children's learning in Religious Education?*
>
> *Question 5: What are early childhood teachers' beliefs about teaching Religious Education?*

In response to Questions 4 and 5, the findings from Phase One and Two are presented in this section. Each scale from Phase One is presented in a discussion with the data collected from Phase Two. With regard to question four, the Phase One data did not highlight beliefs that primarily related to teachers' beliefs about children's learning in Religious Education. Fortunately, the four cases explored in Phase Two provided a rich source of beliefs about children's learning in Religious Education. These beliefs included: attributes of learners, ways of learning in Religious Education, critical content/knowledge, and monitoring children's learning.

Common to Teachers A, B and C was the belief that children's prior experience or lack of experience with the Church and ritual had an impact on children's learning. These teachers suggested that young children were keen to learn about all things religious and the teachers used opportunities that arose in daily interactions to build on or respond to children's interests. It was the incidental experiences reported by the four teachers that provided opportunities to gain an insight into children's learning in Religious Education. Monitoring of children's learning was done by Teachers A and C. Teacher C was the only teacher that had formal reporting requirements. The other teachers had less formal approaches to monitoring and reporting on children's learning in Religious Education.

With regard to question 5, the Phase One data highlighted four scales that directly relate to views on teaching Religious Education. Religious Education as a ministry was a consistent belief amongst teachers in Phase One. The four teachers in Phase Two confirmed this viewpoint. Each teacher expressed this in their own unique way.

For example, Teacher A saw her role as a role model and pastoral care relationships with children and families were central to her perspective. Similarly, Teacher C saw her role as being the 'face' of the Church for many families and this role had significant responsibility.

The integrated approach to Religious Education was supported as an approach by teachers in Phase One and Phase Two. Phase Two data supported this, with three of the four teachers observed and interviewed confirming that they used this approach to teaching Religious Education. Similarly, the results of Phase One, suggested that Religious Education planning and teaching scale had high levels of agreement with teachers. Teachers A and C had clear, explicit Religious Education curriculum documents. These documents were supported by regular professional development. By contrast, Teachers B and D, although they had curriculum documents and units for teaching did not use these to support their teaching of Religious Education. A major reason for this cited by the teachers was a developing understanding of the content and a lack of confidence in teaching Religious Education. It was conjectured that professional development and a supportive collegial environment may enhance Teacher B and D's approach to teaching Religious Education.

The results for these questions four and five are summarised and presented below in Table 7.3.

Table 7.3 *Summary of results for questions four and five from Phase One and Two*

Phase One- Quantitative scales	Phase Two- Qualitative categories
Religious Education as a Ministry was agreed by most teachers. Integrated approach to Religious Education was agreed by most teachers. Religious Education planning and teaching *was highly regarded by teachers.* Religious Education as a Key Learning Area *was highly regarded by teachers.*	Religious Education learning categories: • Learner's attributes • Ways of learning • Content and knowledge • Skills required • Monitoring learning Religious Education teaching: • Teacher's role • Teaching approach • Approach to planning

Table 7.3 highlights some significant similarities, differences and new knowledge uncovered when looking at the data collected using a variety of methods. Similarities included the opinion that Religious Education was a body of knowledge that was unique to its curriculum area. For example, Religious Education included elements of spirituality, faith and knowledge. A strong sense of belonging to a larger group was also evident in defining what Religious Education was in the context of Catholic schools. The participants' responses demonstrated their understandings based on their experiences as individuals and as teachers within Catholic schools. The approaches to planning and teaching Religious Education in the early years were issues examined in more depth in the Phase Two data that were not as clearly identified in the Phase One data.

Question 6: To what extent do teachers' beliefs about teaching and learning Religious Education differ according to curriculum document type, age, gender, qualification and number of years teaching?

In response to Question 6, the findings from Phase One and Two are presented in this section. Each scale from Phase One is presented in a discussion with the data collected from Phase Two.

With regard to both the integrated approach to teaching Religious Education, older teachers were more likely to use this approach than their younger counterparts. This was also the case for teachers with more teaching experience. The data from Phase Two generally confirmed this. Teachers A, B and D were all categorised as using an integrated approach post the data collection in Phase Two. Reasons for this approach include the nature of Religious Education curriculum documents that support a more integrated approach, as well as the teacher's early childhood teacher education which promoted a strong sense of assisting children to make links with everyday experiences. By contrast, Teacher C was strongly aligned with the Ministry approach. The Religious Education curriculum documents used by Teacher C supported this approach to Religious Education teaching. For example, these documents are based on the work of Cavaletti and the content and approach is faith based and the teachers' role is an extension of the Church's ministry. The data from Phase One also suggested that the age of teachers affected the way in which they viewed their role. The results suggested the older the teacher, the more likely they were to support a ministry approach. Teacher C was the oldest teacher of the four examined in Phase Two and this result confirms the findings of Phase One.

With regard to Religious Education, learning and teaching was affected by the curriculum document type groups in Phase One. The results suggested that teachers with 'educational' documents were more likely to support this scale than counterparts from the 'Praxis' of 'Faith' based curriculum document type groups. Teacher A and B's dioceses used curriculum documents that were underpinned by an integrated approach to teaching Religious Education. The Phase Two observations were supportive of this position. Teacher C's diocese used Religious Education curriculum documents that were underpinned by a 'faith' based approach. This document was supportive of her practice and enabled Teacher C to teach using an approach that was consistent with her beliefs about teaching Religious Education. The following

table summarises the findings for Question six from Phase One and Two. The results for this question are summarised and presented below in Table 7.4.

Table 7.4 *Summary of results for question six from Phase One and Two*

Phase One- Quantitative scales	Phase Two- Qualitative categories
Religious Education as a Ministry was affected *significantly by age and qualification type.* Integrated approach to Religious Education *was impacted significantly by gender and age.* Religious Education planning and teaching *was not significantly affected by any variables.* Religious Education as a Key Learning Area *was influenced by curriculum document type and age groups.*	Intrinsic • Confidence • Knowledge about Religious Education content • Beliefs about teaching Religious Education • Education and experience Extrinsic • Access to professional development • School administration • Curriculum documents • Teacher's role • Teaching approach • Approach to planning

Table 7.4 above highlights some significant similarities and differences when looking at the data collected using a variety of methods. Similarities include the extrinsic and intrinsic factors that impact on a teachers' ability to teach according to their beliefs. Phase One examined the impact of demographic factors in the participants' responses. Phase Two probed additional factors that impact on the participants' practice and these are contextualised factors. In Phase One, the demographic data identified that curriculum document type, age and number of years teaching impacted on teachers' beliefs about Religious Education learning and teaching. The Phase Two data elaborated on these results and provided more detail.

For example, each teacher had a complex set of contexts that impacted on their beliefs and practice. Curriculum document type, age and number of years teaching did impact, however on an individual teacher level these results varied. For example, Teacher A was in an older age group and had more than twenty years teaching

experience, and she had curriculum documents that clearly outlined expectations for teaching of Religious Education. These factors supported her confidence and knowledge about teaching Religious Education.

Teacher B was in a middle age group, with more than ten years teaching experience. Although she had access to the same Religious Education guidelines as Teacher A, her personal experience, namely, her recent decision to become a Catholic and less than ten years of teaching in Catholic school meant that she lacked confidence and knowledge about the content and approaches required for teaching Religious Education. Her situation was magnified by no access to professional development and lack of support from school administration team.

Teacher C, was similar to Teacher A, in number of years teaching and age group, however her curriculum documents supported a different approach to Religious Education. Within her context, Teacher C had support from school administration team, regular opportunities for professional development and was very confident about teaching Religious Education.

Finally, Teacher D, was the youngest of the four teachers, had limited personal experiences of being a Catholic and she had only worked in the Catholic system for less than two years. All of these factors impacted on her ability to teach Religious Education in her early childhood classroom.

> *Question seven: To what extent do teacher's beliefs about learning and teaching relate to their beliefs about teaching and learning Religious Education?*

The results for this question were answered by both Phase One and Two. Phase One categorised the four teachers selected for further study in Phase Two. Figures 6.1 and 6.2 from Chapter Six highlight the positions of the four cases at the end of Phase One and Phase Two. The results for this question are summarised and presented below in Table 7.5.

Table 7.5

Summary of results for research question seven from Phase One and Two

Phase One- Quantitative	Phase Two- Qualitative
Teacher A – High Emergent High Ministry	Teacher A's observed practice indicated this participant was consistently using practice typical of her beliefs. For Religious Education, Teacher A used the diocesan guidelines to cover topics for the year. The integration of Religious Education was evident in her interactions with children and other curriculum areas. Similar styles and approaches were used for Religious Education as for other areas of teaching. Time was allocated for covering Religious Education topics weekly.
Teacher B – High Emergent High Integrated	Teacher B's observed practice indicated this participant was consistently using practice typical of her beliefs. There were some instances when a more teacher-directed approach was used, but this was justified by the participant within the context. For Religious Education, Teacher B used the diocesan guidelines as guide, but was lead by children's interests. Integration of Religious Education was evident in interactions with children and other curriculum areas. Similar styles and approaches were used for Religious Education as other areas of teaching. In addition, worksheets were sometimes used for Religious Education lessons. The content covered was planned on a weekly basis and ad hoc as children initiated ideas.

Phase One- Quantitative	Phase Two- Qualitative
Teacher C – High Traditional High Ministry	Teacher C's observed practice indicated that this participant was consistently using practice typical of her beliefs. For Religious Education, Teacher C used the diocesan guidelines to cover topics for the year. Religious Education was taught as a discrete lesson and followed up with discussions as required. A different teaching method was observed in contrast with other curriculum areas.
Teacher D – High Traditional High Integrated	Teacher D's practice observed indicated this participant was not consistently using practice typical of her stated beliefs. Her practice and comments in the semi-structured interview indicated a difference between the two. For Religious Education, this participant did not use the diocesan guidelines to plan for Religious Education. Integration of religious ideas and content evident in interactions with children and other curriculum areas. Similar styles and approaches were used for RE as other areas of teaching.

Table 7.5 highlights some significant issues which assist in addressing this research question. First, the data analysis previously reported for questions one to six impacted on the interpretation of research Question Seven. In essence, this question looked at all the data collected from multiple sources. The data presented in Table 7.5 suggested that generally, teachers teach according to their beliefs. Teachers A and B represented the more child-centred or emergent approach to teaching. Examples provided in Chapter Six confirm this position. By contrast, Teachers C and D used more traditional approaches to teaching. For Teacher D, the teacher with the least amount of experience, there was evidence of dilemmas she faced in her understanding of early childhood learning and teaching and in particular what Religious Education in the early years should include.

Additional evidence existed in the data that suggested the four teachers adapted their approaches to supporting children's learning and teaching depending on a range of contextual factors identified in Question Six. The four participants also acknowledged dilemmas that they faced in everyday situations, which challenged their choices and approaches to teaching and the teaching of Religious Education.

7.3 Discussion

7.3.1 Introduction

There is a relationship between early childhood teachers' beliefs and practices. This research and earlier research has supported this claim. Vartuli (1999) suggested that beliefs were intrinsic to all teachers. Specifically, they were in the form of knowledge that underpinned classroom decision making (Vartuli, 1999). The findings of this research suggest that early childhood teachers in Catholic schools generally teach according to their beliefs. Both statistical and descriptive analyses revealed that teachers cannot be categorised as fitting into one, lineal 'teacher-type'. In fact, the teaching approaches varied for different contexts and curriculum areas. In this section of the chapter, a series of discussions based on both the quantitative and qualitative data sets are presented in conversation with the literature.

7.3.2 Early childhood teachers' beliefs about learning

Teachers' beliefs about learning were derived from a range of sources, including their own educational, teaching and life experiences. Erricker et al. (1997) suggested that as 'meaning makers', individuals formed beliefs based on life experiences. Early childhood teachers' beliefs about learning reflected knowledge gained through life experience, and child development theories learned in undergraduate studies (Stott & Bowman, 1996). Recent advances and debates in the literature suggested a shift in the way early childhood teachers understand children's learning and development and also challenged the status quo (Arthur et al., 2005; Ryan & Grieshaber, 2004). A reliance only upon child development theories promotes a narrow view of children and childhood, recent perspectives have included multiple childhoods and valuing of diversity (Arthur et al., 2005; Ryan & Grieshaber, 2004). The post-modern perspectives that have influenced early childhood teachers' understandings have attempted to challenge the status quo. These perspectives aim to portray the

complex realities of children and families. Specifically, social, cultural, ethnic and religious backgrounds contribute to multiple viewpoints about children's learning and development. However, many of the current practicing teachers hold child development theories closely to the core of their teaching. In this study, it was a central tenet for teachers and provided a framework which helped them to make sense of their experiences with children and families.

The shift in focus proposed by Ryan and Grieshaber (2005) was not evident in the participants' beliefs about young children's learning. There was evidence of the importance of the context and its influence on children's learning. The four participants identified factors that supported learning which included a structured predictable environment; the importance of children's interest in engaging in rich meaningful experiences; the value of challenges and risk taking, play as being a way in which children can explore, discover and make meaning of their world; and, the critical importance of the 'other' in learning. These factors were consistent with the literature that highlighted the key aspects that supported learning processes (Arthur et al., 2005; Hill, Stremmel & Fu, 2005). For example, children's learning occurs within socio-cultural contexts and involves children actively participating and constructing their knowledge. It was conjectured that the data presented in this research does not support the view proposed by Ryan and Grieshaber (2005), because the four teachers are practitioners in the field of early childhood and their practice in embedded in their own theories about learning and teaching that have developed as a result of their experiences. There was evidence within the teachers' transcripts to suggest that the teachers were aware of the range of social and cultural contexts that impact on children's learning and development. For example, the four teachers highlighted the importance of children's prior learning at home and other early childhood settings and the way this affects their interests, knowledge, skills, competence and abilities.

Similarly, constraints for learning were also identified by the participants' as factors that impacted on children's learning. These constraints were mostly external to the teacher and were beyond their immediate control. For example, the formal setting of the school environment with school bells and rules, coupled with noise and an observed increase in children exhibiting challenging behaviours were perceived constraints for the teachers. The literature presented in Chapter One and Two highlighted the contexts of the early childhood classroom within formal schooling

environment. In the Australian context, this is an increasing trend. The findings of this study confirm the findings of previous research about external factors that impact on children's learning, but this study highlights the impact of early childhood settings within formal school environments and the expectations that are associated with this. For example, early childhood classes in school settings will conform to school bells to determine the timetable for the program. Teachers may perceive this as conforming to the context.

The summary of results presented earlier in this chapter and in Chapter Six, suggested that teachers' beliefs about children's learning were generally consistent with the poles identified in the literature. Namely, the poles were labeled social-constructivist and traditional/behaviourist. Research conducted by Wooley and Wooley (1999) and Benjamin (2003) provided additional evidence of the two poles. It was evident in the findings of this research that beliefs could be polarised but their were also many beliefs articulated by participants from Phase Two which reflected other or mixed beliefs about children's learning in terms of their current context and the children in their class.

However, it was apparent in the data collected in Phase One and Two, that these 'poles' shifted for individuals. The view of the poles is a static one, and does not recognise that 'human element' that makes beliefs dynamic. They are ever-changing and shaped by experience. Earlier research reinforced the notion that beliefs about learning were polarised (Benjamin, 2003; Wooley & Wooley, 1999). When this was probed with the four participants in Phase Two, they had difficulty articulating the two poles, in particular, naming child development theorists that have impacted on their understandings. Instead the four participants described their beliefs about children's learning which combined theories and practice to describe their eclectic views. The predominant viewpoint held by the participants, which was consistent with current literature, is the notion that children construct their knowledge through experiences. They also supported Berk and Winsler's (1995) conjecture that parents, other children and teachers play an important role in this process.

The way in which children were viewed was also highlighted in the literature and the results of this study. In the contemporary literature, children are seen as competent, engaged, thinking, creative and communicative (QSA, 2003). Teachers in both Phase One and Phase Two supported this perspective. Generally, children were viewed as competent and capable. The challenge for teachers remained in how to translate

these beliefs about children's competence into practice. In both data sets, teachers' beliefs about learning were intertwined with their beliefs about teaching. Variations occurred between beliefs about teaching and the practice of teaching.

7.3.3 Early childhood teachers' beliefs about teaching

Teachers' beliefs about teaching are grounded in their own schooling experiences, education and teaching experiences (Wu, 2003). In order to teach, plans and decisions made by teachers operationalised their theories and beliefs (Berthelsen et al., 2002; Einarsdottir, 2001). Like the beliefs about learning, two polarised views were presented in the literature (Stipek & Byler, 2004). These views were emergent approaches to teaching which are primarily child-centred and a more traditional approach, which was more didactic and teacher-centred. This polarization leads to categorization and labeling of teachers. Reality, as presented in this study, highlighted that there were many ways in which one could categorise teachers. Each participant, although categorised by beliefs in Phase One, in practice exhibited similar beliefs. For many years, Developmentally Appropriate Practice (DAP) was promoted as being the 'best' practice for teaching young children (Bredekamp & Copple, 1997). Recent literature has challenged this approach and criticised its ability to cater for the complex realities of children and families in the twenty-first century (e.g., Millikan, 2003). It also views classrooms and schools as complex social and cultural realities (Millikan, 2003). The data collected in the Phase Two represents four very different contexts, each with their own complex social reality.

The results of Phase one, teacher's levels of agreement with the learning and teaching scales showed that these two poles were not mutually exclusive. For example, there were high levels of agreement for the emergent, active learning, skill development and traditional factors scales. Additionally, the four cases in Phase Two of the study provided evidence of the complex social reality and contextual factors that impact on the way in which beliefs are enacted in practice.

The duplicitous dilemma for teachers was whether or not to teach children skills that are needed for year one. The four participants in Phase Two expressed a range of opinions about this issue. For Teacher C, her context and curriculum framework had clear expectations about writing, reading and mathematic competencies to be acquired during the year. At the other end of the scale, Teachers B and D made comments on readiness and were particularly focused on social competencies rather that academic skills, such as reading and writing. Teacher A was observed as being

somewhere in the middle of the previous examples. Teacher A had some expectations about where children may head academically but also spent time embedding social skills into the program so that children could be independent learners.

Participants in each of their settings made decisions on a daily basis about their teaching within their context. Evidence of a range of teaching strategies employed by teachers, including child-centred through to explicit teaching using a teacher-directed approach, were observed. This research confirmed the complexity that surrounds the work of teachers and teaching. Further research into the complex nature of teachers' beliefs about teaching is warranted. In particular, further research that considers the impact of competing interests on teachers' practice and the dilemmas faced by teachers in everyday enactment of their beliefs into practice.

7.3.4 Early childhood teachers' beliefs about Religious Education

Beliefs about learning Religious Education were difficult for the participants to articulate. There is paucity in the research literature about teachers' beliefs about Religious Education. In particular, there is very limited research on Religious Education in the early years. The body of literature defined Religious Education, an essential part of Catholic schooling, as a Key Learning Area of study (Lovat, 2002). Historically, the development of this subject area has moved from a catechetical approach (which aimed to evangelise) to an educational approach (with outcomes, competencies, skills and attitudes). Both of the approaches described above were focused on knowledge, skills and attitudes associated with the study of religion (Ashton, 2000; Lovat, 2002). Moran (1991) defined Religious Education as having two parts. Firstly, it was about the study of Religion and second, it was learning to 'act' in a religious way. Evidence of both viewpoints was observed in the practice of the four participants. Again, a polarised view of Religious Education has limitations when dealing with real life contexts. Phase One results suggested that Religious Education was a Key Learning Area that had specific body of knowledge associated with it. This data were confirmed in Phase Two. Teachers A and C both had guidelines for the teaching of Religious Education. These were a clear, succinct body of knowledge to be 'taught' to children. For Teachers B and D, the approaches were not so clear. Three of the four teachers in Phase Two of the study placed more emphasis on the second part of Moran's (1991) definition that is, teaching children to act in a religious way. Specifically, teachers' observed practice included the explicit

and implicit teaching of behaviours and attitudes that were overtly Christian. In these interactions, knowledge is 'passed' onto children about beliefs, attitudes and values that are associated with Religious beliefs.

A broader issue that emerged in the data was the sense of belonging that was fostered in Catholic schools. This was a tangible expression of what it means to be Catholic and one that all teachers promoted, in particular with families and children with limited 'Church' experience before attending a Catholic school. The Catholic school was seen by a number of the participants as the "New Church". This was defined as the first place that many families encounter the Church and had a critical role in sharing the Gospel. These issues warrant further investigation. In particular, an exploration of the role of Catholic schools as the 'face' of the Church in the twenty-first century.

7.3.5 Early childhood teachers' beliefs about Religious Education learning

Recent interest in children's understandings and engagement with all things Religious has been generated worldwide. This revived interest, provided a contrast to the views held in the 1960s. The earlier views maintained that young children were not capable of understanding or engaging with religious concepts and beliefs (e.g., Goldman, 1965; Nye & Hay, 1997). Current views, for example, the work of Nye and Hay (1997) explored the spiritual capabilities of young children. Similarly, the work of Cavaletti (1992, 1999) of more than forty years suggested that children as young as three can understand God and be engaged in experiences that foster an appreciation and the beginnings of a life-long relationship (Cavaletti, 1999; Gobbi, 1998). There appeared to be different interpretations in the agendas with regard to the current emphasis of typical Religious Education programs. The focus of Religious Education in Australian Catholic schools was typically about content. The four participants had difficultly articulating beliefs about Religious Education learners and learning. Perhaps this difficulty was grounded in the lack of research, professional development and debates about this aspect of practice. The changing viewpoints may have created tensions for teachers and their understanding and beliefs about children's learning. For example, older teachers' experiences of Religious Education may have been prior to the 1960s when the view of Religious Education shifted in the wake of Vatican II.

Religious Education is a subject area with a body of knowledge. There appeared to be a range of views within the Australian context as to the purpose of the Religious

Education in schools. For example, in the Archdiocese of Melbourne the focus of the program was to evangelise and share the mission of the Church with children (Archdiocese of Melbourne, 2000). By contrast, the Archdiocese of Brisbane, aimed to educate (Archdiocese of Brisbane, 1997). Both of these examples drew on the same Vatican documents to develop their syllabus documents however, the focus of each is different.

Phase One data did not significantly add to the knowledge about early childhood teachers' beliefs about learning in Religious Education. However, the probing of individuals in Phase Two suggested that the four participants' beliefs about children's learning were similar to their beliefs about early childhood learning. The questions about children's learning in the area of Religious Education were challenging for the participants as they had never really thought about the learner in this subject area.

The importance of symbols, rituals and play were seen by the participants as being important for young learners. Erricker et al. (1997) emphasised that children came to classrooms with a range of prior experiences. They stated that symbols, rituals and play are avenues for children to engage with religious concepts, knowledge and attitudes (Erricker et al., 1997). The four participants from Phase Two of this study highlighted that the use of ritual and symbols played an important role in the learning and teaching of Religious Education in early childhood classrooms. Beliefs and practices about Religious Education learning warrants further study. In particular, the aspect that examines beliefs about learning and how these beliefs are enacted in the classroom.

7.3.6 Early childhood teachers' beliefs about teaching Religious Education

Similar to the recent interest in children's learning in the area of Religious Education, there has been a renewed interest in teaching Religious Education. Research originating from the United Kingdom has focused on teaching for the past 20 years (e.g., Francis, Kay & Campbell, 1996; Grimmitt, 2000). Of the 40 studies conducted, none of the research explored teachers' beliefs about teaching Religious Education. General educational literature recognised the significance of beliefs and how they underpinned classroom practice.

This research aimed to investigate the early childhood teachers' beliefs and practices related to the teaching of Religious Education in the early years. A lot of the Australian literature has focused on the different theoretical paradigms that underpin the current approaches to Religious Education. There are clear demarcations

evident, those in the ‘catechetical’, ‘praxis’ and ‘educational’ camps. Chapter Two of this thesis highlighted the viewpoints of each of these. The discussion in the literature failed to engage with the complex reality of teachers in classrooms. This research has recognised that teachers bring with them knowledge from a range of life experiences that impacts on their decision making in the classroom.

The results of the survey in Phase One highlighted the existence of various approaches to teaching Religious Education in the early years. Specifically, the integrated approach and the ministry approach were two scales that were identified in the data analysis. The purposeful selection of two teachers from each of these categories enabled the researcher to explore the categories in more depth. Teachers A and C were confident teachers of Religious Education. Both teachers had long histories associated with being a Catholic and teaching in a Catholic school and engaged in regular professional development. Self- efficacy was a significant intrinsic factor. This, coupled with their knowledge and experience, contributed to including a Religious Education program in their classrooms. By contrast, Teachers B and D had less confidence in teaching Religious Education and this was reflected in their teaching.

Another issued that emerged in the research about teachers’ beliefs about teaching Religious Education was the variations in curriculum documents, clear expectations and support for the teaching of Religious Education in Catholic schools. Three of the four cases had clear guidelines and syllabus documents for the teaching of religion. Coupled with these documents, there was on-going support in the school and dioceses for professional development and training. Unfortunately, in the fourth case, this diocese did not have the same level of support for the teaching of Religious Education. Teacher A and B used the same curriculum documents for Religious Education and there were differences in their practice. Although they were both more emergent in their early childhood teacher, they used an integrated approach to teaching Religious Education. Teacher A was more confident and displayed higher levels of competence when discussing the nature of her Religious Education program. Whereas, Teacher B, used a more laissez- faire approach. This was partly due to the variations in settings and the expectation and support provided by school administration. Teachers with clear guidelines and curriculum documents for Religious Education in Phase Two were more likely to teach according to their beliefs. The exceptions to this were Teacher A and Teacher D. For Teacher D, the

lack of clear guidelines for teaching, lack of access to professional development and limited support within the school all impacted on her ability to teach Religious Education. For Teacher A, it was conjectured that the support provided by her context may have lead to a shift in beliefs about teaching Religious Education.

Teachers' beliefs about Religious Education teaching is worthy of more investigation in the future.

7.3.7 Relationships between early childhood teaching practice and Religious Education teaching practice

A relationship between early childhood and Religious Education teaching was evident in this study. The extent to which teachers taught these aspects differed. For the four teachers, Religious Education in a Catholic school was not viewed as having the equivalent importance to other KLAs that developed skills such as literacy and numeracy. It was recognised as being an important part of teaching in a Catholic school, but for three of the four teachers, there was no obligation to report on it to parents or monitor children's learning. For example, Teacher C seemed amused by the fact that Religious Education would have the same weight as Mathematics or English.

It was apparent from the data collected from multiple sources in Phase One and Phase Two that teachers' beliefs influenced their practice with regard to the teaching of both early childhood and Religious Education. Previous research in the area of beliefs suggested that beliefs underpin classroom practice (Chan, 2003; Einarsdottir, 2001; Stipek & Byler, 1997). In the identification of factors that influenced teachers' practice, it was found that both extrinsic and intrinsic factors influence a teacher's decision making. In the four cases presented, the school context, support from administration, clear guidelines for teaching, access to professional development, education background, personal understanding of content, and confidence were the major extrinsic and intrinsic factors that impacted on practice. These factors were generally consistent with the body of educational literature on beliefs and practice (e.g., Aston & Hyle, 1997; Bean, Fulmer, Zigmond & Grumet, 1997; Ernest, 2001; McMullen, 1999; Stipek & Byler, 1997; Vartuli, 1999).

The results of Phase Two highlight the impact of subject knowledge on teaching. This was evident for Teachers B and D who lacked confidence that refelcted limited content knowledge about Religious Education and specifically about what it means to

be a Catholic and the 'life-experience' knowledge that comes with being Catholic. Both Teachers B and D's lack of confidence and knowledge was magnified by limited access to professional development, support and mentoring. White (2004) highlighted that teachers have a range of teaching approaches in their repertoire but had difficulty applying them to the teaching of Religious Education. It was conjectured that teachers' rely on transmission approaches to teaching and fail to challenge students' thinking and creativity when they lack subject matter knowledge (White, 2004). In this research, the data suggested that in Teacher B's case, the use of worksheets in Religious Education sessions were an example of practice that was not consistent with her typical early childhood practice. Additionally, Teacher B tended to be more teacher-directed when teaching Religious Education. It tended to be viewed as something of a transmission approach, by the amount of talking done by the teacher to impart content knowledge to children.

This final research question examined the relationship between everyday practice and the teaching of Religious Education in early childhood classrooms. This research has afforded the four participants an opportunity to reflect on their practice and to "confront the relationship between theories and practice" (Wood & Bennett, 2000, p. 646). Specifically, it provided them a chance to reflect on how they teach Religious Education and their own needs for professional development and learning.

7.3.8 Section summary

This section has presented a discussion about the major findings of this research embedded in the contemporary literature. The study has provided new insights into teacher thinking and decision making and highlighted considerations for future research into the area of teachers' beliefs and practice and in particular, Religious Education in the early years of schooling. The following section includes the conclusions of research.

7.4 Implications of the research

There are two major implications of this research. First, there are implications for research and second, there are implications for the teaching profession. These implications are explored in this section of the Chapter.

Implications for research include the successful use of mixed methodology to investigate early childhood teachers' beliefs and practice. Within the methodologies, an instrument was developed, validated and implemented in this research to specifically investigate teachers' beliefs. The analysis of the data collected by the instrument lead to the selection of four participants for Phase Two of the study, and a collection of data from multiple sources including observations, use of digital photographs to stimulate teachers' memory of events, semi-structured interviews and the collection of artifacts. These approaches were innovative and enabled the researcher to engage with the data and explore the research questions from multiple angles.

Implications for the profession include implications for schools, employers, policy writers and implementers of curriculum. The findings suggest that there are many factors that can impact on teachers' beliefs and practice, however, the most significant finding of this research is the need for clear expectations about what should be taught. Hence, there is a need for clear guidelines and opportunities for teacher practitioners to engage in professional dialogue and support with professional development.

At a school level, teachers, who have recently become a Catholic or who are new to the Catholic schools should be given appropriate support and mentoring. At an employing body level, clear guidelines and expectations about the content, knowledge, assessment and reporting requirements for Religious Education should be made available to all staff. These guidelines should be implemented with quality controls to assess the effectiveness of the process and to gain valuable insight for employees to further develop Religious Education learning and teaching in Australian Catholic schools. Another issues for employing bodies, both nationally and in each state are the variations that exist in early years and Religious Education curriculum documents. It is important that dialogue between National and state stakeholders continues so that

The above implication links closely to the pre-service teacher education programs in Australia. The study highlighted the importance for teachers to articulate their beliefs and to be reflective in and on action (Ferry & Ross-Gordon, 1998; Schön, 1987). If pre-service teachers are aware of their beliefs about learning and teaching, and can articulate them during training, their practices may be more closely aligned with their beliefs.

With regard to professional development, there was evidence in the research that suggested professional development supported practice. For the cases that had no regular professional development for Religious Education, the teaching of Religious Education was limited. This was magnified by the individual teacher's lack of confidence and knowledge in the curriculum area. With regard to curriculum and pedagogical considerations for early childhood Religious Education, an evidence-based development of curriculum is necessary, one that does not continue the debates around approaches. Religious Education in the early years should be driven by what children know, what children need to know and be taught about their faith and religion.

For teachers as individuals, their needs as life long learners need to be identified and supported within the context of their workplace. This is both a systemic and school based imperative. Perhaps the nervousness experienced by the two teachers who were recent converts to Catholicism, may be linked to their understanding of what Religious Education is and what it aims to do. It was conjectured that they viewed Religious Education as a faith forming activity, even though the supporting Religious Education documents were educational in nature. Within a faith forming approach to teaching Religious Education, the emphasis of these teachers was more about transmitting the beliefs and practices, rather than knowledge. The knowledge or content was an aspect with which they were not conversant and lacked confidence.

Suggestions for future research include:

1. Replicating the study with a variety of teacher groups, teaching other year levels in Catholic schools.
2. Expanding the research to other religions and Christian denominations.
3. Revising the learning and teaching scales for both early childhood and Religious Education to ensure higher levels of reliability

4. Replicating the study with pre-service teachers in Religious Education and other curriculum areas.
5. Conducting a detailed document analysis which highlights the commonalities and differences between diocesan guidelines for Religious Education.
6. Conducting a similar study with teachers in the United Kingdom, where the teaching of Religious Education is compulsory and covers a wide range of faiths.

7.5 Significance of the research

The results of this research have significance for the early childhood education field and the teaching of Religious Education in the early years. This research was the first of its type conducted in the Australian Catholic schools. Earlier research conducted in the United States by Smith (1992), Cory (1995) and Cherek (1997) did not explore early childhood teachers' beliefs and practices of early childhood teachers working with four to six year old children in Catholic schools.

Previous studies have focused on teachers' beliefs and how these influence their classroom practice. This study has attempted to examine this issue within the Australian context and with early childhood teachers in Catholic school. The study collected data in Phase One from a broad base of participants representing a range of contexts from around Australia. In Phase Two four participants were purposefully selected for closer examination.

The quantitative data from Phase One was analyzed to highlight the descriptive and inferential relationships. The large number of respondents meant that data collected was reliable and could be generalised to the population. This process identified relationships that existed between demographics and the instrument scales. Specifically, there was a relationship between all scales and demographics. Interestingly in the correlation analyses, a relationship between teaching and learning in early childhood and Religious Education was confirmed. The relationship between the emergent scale and the integrated scales seemed logical as both scales were linked to developing curriculum that was based on children's interests. A surprising relationship was recognised between the emergent scale and the ministry scale. It was conjectured that this may have been because teachers were not seeing

Religious Education as a curriculum area such as English or Mathematics; it tended to be viewed as something done as an 'add-on' due to their teaching context.

The qualitative data collection and presentation as a case study allowed in-depth collection of data from the four participants in Phase Two of the study. The four cases were representative of four groups of teachers selected from Phase One of data collection. It was the intention of the research to understand what teachers' beliefs were and how these impacted on their day to day classroom decision making processes.

Teachers' thoughts and ideas were discussed frankly in the semi-structured interviews. Their informal discussions with the researcher, observations in their classrooms and artifacts collected were generally consistent with their beliefs. Where differences existed, teachers explained reasons and contexts such as: children, resources, environment, family and school expectations and their own confidence in making active decisions.

7.6 Limitations of the research

Like all research, this project had limitations. There were four primary limitations of this research. First, the research was limited by the nature of the research questions. The research questions determined the choice of research methods for collecting and analyzing data. There were many advantages and disadvantages in using a mixed-method approach. One advantage was that the data from both methods could be triangulated. A disadvantage was the generalizability of the data to the wider population. Data from Phase One was generalizable to population. By contrast the rich, descriptive data from Phase Two was not generalizable.

Second, the research was limited by the complex and diverse backgrounds of the participants. Phase One had respondents from six Australian states, coming from varying locations (urban and rural), ages, level of qualification (Diploma to Masters), varied teaching experiences, and a diverse array of current teaching contexts. The four cases from Phase Two were purposefully selected to represent the extremes. These cases were diverse and added a level of complexity to the research. Unfortunately, the data related to male participants in Phase One was not confirmed in Phase Two, as no male teachers volunteered to participate in this phase.

Third, the research was limited to early childhood teachers, teaching four to six year old children, in Australian Catholic schools. This group was selected as there is diversity across the six states in how programs for four to six years are educated.

Fourth, the research was limited to teachers. The researcher deliberately limited the study to teachers' beliefs so that a manageable study could be conducted within defined parameters.

7.7 Closing comments

This study explored the beliefs and practice of Australian early childhood teachers with regard to learning and teaching. Specifically, the study focused on the curriculum area of Religious Education. It was highlighted in the literature that the early years of learning are an important phase of learning for life. Critical in these years was the role of the teacher in facilitating learning within classrooms environments. Similarly, Religious Education in the early years should provide the foundations for life long learning about religion and learning to be religious. Teacher B's experience of recently making an adult choice to become a Catholic was evidence of the self-directed search for meaning and feeling a sense of belonging, a life long pursuit.

A common link between the beliefs about learning in everyday early childhood and Religious Education was the recognition of the uniqueness of childhood. There was an appreciation for the natural curiosity that children have for discovering and making sense, which was fostered by teachers.

Encouragement and gratitude is extended to all those who participated in this research. Working with young children can be both rewarding and challenging. Teachers of young children are encouraged to think and reflect about their daily classroom practice and what influences their daily decision making, so that the way in which they operate in everyday practice matches the values and beliefs that promote high quality learning experiences for all young children.

In concluding this thesis, three comments related to the purpose of this research are made. Firstly, this study provided an opportunity to illuminate early childhood teachers' in Catholic schools beliefs about learning, teaching and Religious Education by examining their practice. This process presented the realities of four teachers. The four case studies highlighted the challenges and rewards they face

when working with young children. Their participation in the research afforded them with opportunities to reflect on their thinking and action. Secondly, the research identified factors that impact on teachers' beliefs and the enactment of these beliefs in everyday classroom practice. Interestingly, links between the data presented in Chapter Five and Six, were confirmed and explored further in this final chapter of the thesis. Secondly, and building on the first point, the research highlighted factors that support early childhood teachers' ability to teach. Most significant of these was the access to professional development and support for teachers who are new to the Catholic education system and new to Catholicism. These issues have direct implications for both employing bodies and school administration teams. Thirdly, the research highlighted some current practice related to the teaching of Religious Education in Catholic early childhood settings. What was evident in this research was both the change and similarity of pedagogical practices of the four case studies and the reasons for this.

On reflection, Goethe's quote continues to challenge and inspire the researcher. It reflects the essence of this research and plans for future research.

> *To think is easy.*
> *To act is hard.*
> *But the hardest thing in the world is to act in accordance with your thinking* (Goethe, no date).

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APPENDICES

APPENDIX A

PILOT STUDY INSTRUMENT

Pilot Study Instrument

Instructions:

This questionnaire has 60 items about your beliefs about learning, teaching, and Religious Education in preschool. There are no right or wrong answers, it is your opinion that is wanted. All information is confidential.

There were five points on the Likert scale: Strongly disagree, Disagree, Neither, Agree, Strongly Agree

Beliefs about learning

1. Children become competent learners as they are rewarded.
2. Learning involves the learner being actively involved in the construction of knowledge.
3. Learning is influenced by language.
4. Children learn primarily through information transmitted by teachers.
5. Learning occurs in internal and personal processes.
6. Rewards and punishments are incentives for learning.
7. Children should be allowed to move at their own pace in acquiring literacy and numeracy skills.
8. Learning is influenced by thinking.
9. Learning occurs when a child responds to a stimulus in their environment.
10. Learning can be defined as a process that occurs internally and requires social and cultural interactions.
11. Marks, results and awards are good motivators for learning.
12. Learning occurs within social and cultural contexts.
13. The environment has limited impact on learning.
14. Learning materials should be concrete and relevant to the child's life.
15. Play is a means for children to make sense of their world.
16. Children learn best through rote learning.

Beliefs about teaching

17. I see my role as focusing on children's learning.
18. My role of teacher is one who enforces the rules.
19. My role is to support, guide and enhance children's learning.
20. Planning a curriculum that is responsive to children's learning is my focus.
21. Planning teaching and learning sequences is my priority.
22. In the classroom I see my role as a director of traffic.
23. For most of the time, I expect children to work quietly on their own or in small teacher led groups.
24. I devise tests based on content covered to assess children's learning and development.
25. Social and affective development is an important aspect of my program.
26. The experiences in my classroom are the result of a flexible approach to planning the curriculum.

27. I use learning centres and projects as a teaching strategy.
28. I plan for children to have large blocks of time for play.
29. I observe children to understand their ideas, interests and needs.
30. I use observations to inform the program that I plan.
31. The experiences in my classroom are the result of a negotiated approach to planning the curriculum.
32. I believe that children's holistic development is the priority in my program.
33. Cognitive development and skills necessary for school are important aspects of my program.
34. Teaching in my classroom consists mostly of reading groups, whole group activities and activities at tables.
35. Content is divided into separate curriculum areas.
36. I set aside a time each day/week for children for teaching skills necessary for school.

37. It is my ideas about activities and themes which dictates what happens in my program.
38. I use observations of children to gather information about children's needs, interests and abilities.

Beliefs about Religious Education in Preschool

39. Religious Education in the preschool includes age-appropriate learning activities.
40. Religious Education is a planned session that occurs daily or weekly.
41. Preschool children should be doing similar content to year one in the curriculum area of Religious Education.
42. Religious education in the preschool is integrated with the rest of the curriculum.
43. Religious Education in my preschool classroom includes daily prayer with the whole group.
44. Religious Education in my preschool classroom includes me sharing my faith and my relationship with God.
45. Religious Education in the preschool should include teaching children about social justice issues.
46. I use Bible stories regularly in Religious Education in the Preschool.
47. Teaching Religious Education in the classroom is a ministry.
48. Religious Education in the preschool is about providing the foundations for later learning.

49. Religious Education is a curriculum area with specific content to be covered.
50. Religious Education is a curriculum area that allows students to learn about concepts associated with Religion.
51. Children in Religious Education should meet some outcomes related to the curriculum area by the end of preschool.
52. Religious Education includes teaching children the difference between right and wrong.

53. Religious Education should promote the development of the whole person.
54. I see my role as teacher as an extension of the church's ministry.
55. Religious Education should reflect modern values.
56. Religious Education should be inclusive and respectful of difference.
57. Religious Education in the classroom should reflect the Catholic Church's beliefs and values.
58. Religious Education in the classroom should teach the rules of the Church.
59. Religious Education in my preschool includes children learning that Jesus is their friend.
60. Religious Education should include the development of faith as well as knowledge.

Open- ended questions

Please write a brief response to each of the following questions.

1. Describe your philosophy of teaching and learning.
2. Describe your typical approach to teaching and learning in Religious Education in the preschool?
3. What do you believe is the nature and purpose of Catholic schools?
4. What do you believe preschool aged children are capable of learning about faith? If possible please give examples.
5. Which RE concepts are preschool aged children capable of learning? If possible please give examples.
6. Are preschool aged children capable of a spiritual awareness? If possible please give examples.
7. For you, what does faith development mean?
8. Do you include aspects of faith development in your preschool? If so, what do you include and how?
9. How would you describe the focus of your RE program in your preschool. Is it an educational approach (e.g., related to syllabus, guidelines etc) or one which

develops faith (e.g., related aspects of being a member of the Catholic church)? Give examples.

Background information

Please circle the appropriate response or fill in the required information.

GENDER	**MALE FEMALE**
AGE	**18-25 26-35 36-45 46-55 >55**
TEACHING QUALIFICATIONS (Please list)	
RELIGIOUS EDUCATION QUALIFICATIONS (Please list)	
EARLY CHILDHOOD QUALIFICATIONS (Please list)	
NUMBER OF YEARS TEACHING	**0-2 3-5 6-10 11-20 > 20**
YEAR LEVELS TAUGHT	**CHILD CARE KINDERGARTEN PRESCHOOL** **YEARS 1 2 3 4 5 6 7 8 9 10 11 12 TERTIARY**
NUMBERS OF YEARS TEACHING AT DIFFERENT YEAR LEVELS	
DO YOU CURRENTLY TEACH RELIGIOUS EDUCATION?	**YES NO**
WERE YOU TEACHING RE	

WHEN THE NEW GUIDELINES WERE INTRODUCED IN 1997/8?	**YES NO**
NUMBER OF YEARS TEACHING RE	**0-2 3-5 6-10 11-20 > 20**
DESCRIBE YOUR PRESCHOOL PROGRAM (e.g., single/double unit, full day/ half day, curriculum framework used- KLAs or FLAs, contact with school, number of children enrolled, use of specialists for music, PE, RE etc)	
OPEN- ENDED PROBE **If you feel that there are significant issues related to learning, teaching and RE that could be addressed please**	

Thank you for participating in the piloting of this survey. Please hand back to Catherine Meehan.

APPENDIX B

MAIN STUDY INSTRUMENT

Survey on Beliefs about learning, teaching, and Religious Education

This questionnaire asks you about your beliefs about learning, teaching, and Religious Education. It should take about 20 minutes to complete. It is anticipated that the results of this survey will contribute to both the fields of Early Childhood and Religious Education. *Your answers will be treated confidentially.*

There were five points on the Likert Scale: Strongly disagree, Disagree, Neither, Agree, Strongly Agree.

BELIEFS ABOUT LEARNING

1. Learning involves the learner being actively involved in the construction of knowledge.
2. Children become competent learners as they are rewarded.
3. Learning is an internal and personal process.
4. Children learn primarily through information transmitted by teachers.
5. Learning occurs when a child responds to a stimulus in their environment.
6. Rewards and punishments are incentives for learning.
7. Learning is influenced by thinking.
8. Marks, results and awards are good motivators for learning.
9. Learning is influenced by language.
10. Children learn best through rote learning.
11. Children learn best when they are engaged in self-selected experiences.
12. Learning occurs within social and cultural contexts.
13. The environment has limited impact on learning.
14. Play is a means for children to make sense of their world.

BELIEFS ABOUT TEACHING

15. I see my role as focusing on children's learning.
16. My role of teacher is one who enforces the rules.
17. My role is to support, guide and enhance children's learning.

18. Planning teaching and learning sequences is my priority.
19. Planning a curriculum that is responsive to children's learning is my focus.

20. In the classroom I see my role as a director of traffic.
21. Social and affective development is an important aspect of my program.
22. For most of the time, I expect children to work quietly on their own or in small teacher led groups.
23. The experiences in my classroom are the result of a flexible approach to planning the curriculum.
24. I devise tests based on content covered to assess children's learning and development.

25. I plan for children to have large blocks of time for play.
26. The development of skills necessary for school is the most important aspect of my program.
27. I observe children to understand their ideas, interests and needs.
28. Content is divided into separate curriculum areas.
29. I use observations to inform the program that I plan.
30. The experiences in my classroom are the result of a negotiated approach to planning the curriculum.

31. I plan my program at the beginning of the year/ term and follow it closely with few changes.
32. I believe that children's holistic development is the priority in my program.
33. I use observations of children to gather information about children's needs interests and abilities.
34. I set aside a time each day/week for children for teaching skills necessary for school.
35. Play is my preferred teaching strategy.
36. It is my ideas about activities and themes which dictate what happens in my program.

BELIEFS ABOUT RELIGIOUS EDUCATION

37. I see my role as teacher as an extension of the church's ministry.
38. Religious Education is a planned session that occurs daily or weekly.
39. Religious Education should be inclusive and respectful of difference.
40. Religious Education in my classroom includes me sharing my faith.
41. Religious Education in my class includes age-appropriate learning activities.

42. Religious Education in the early years is about providing the foundations for later learning.
43. Religious Education is a curriculum area that allows students to learn about concepts associated with Religion.
44. Religious Education classrooms should teach the rules of the Church.
45. Religious Education is a key component of Catholic schooling.
46. The children in my class should be doing similar content to year one in the curriculum area of Religious Education.

47. Religious Education should promote the development of the whole person.
48. Religious Education in my class encourages children to ask questions about Religion.
49. Children in my Religious Education class often repeat the same selection of prayers.
50. Religious Education should foster awe and wonder in children.
51. Religious Education is a curriculum area with specific content to be covered.

52. Children are encouraged to question the rules of the Church.
53. Teaching Religious Education is the main feature that distinguishes Catholic schools from non-Catholic schools.
54. Religious Education includes teaching children the difference between right and wrong.
55. Building relationships based on care, trust and love is the focus of my Religious Education program.

Gender	**Male** **Female**
56. Religious Education for the children in my class should include drama and the use of props to tell stories.	
57. Religious Education for the children in my class should include the use of concrete materials. 58. I use units of work/ syllabus documents provided by my diocese as a basis for planning Religious Education. 59. I believe Catholic schools exist to instill Catholic beliefs into children. 60. My Religious Education program is planned before I commence the school year/term and is followed closely. 61. Religious Education in my class includes children learning that Jesus is their friend.	
62. Religious Education in my class is integrated into the rest of the curriculum. 63. I use concepts such as 'People who help us', Lifecycles and caring for the environment as ways for children to make links with Religious Education concepts. 64. My Religious Education is developed as I get to know the children in my group. 65. Prayer is an important component of Religious Education.	

Age (Circle one)	**18-25 26-35 36-45 46-55 >55**
Teaching qualifications including RE and EC	
Please describe your teaching experience	
Do you currently teach	**Yes** **No**

RE?	
Number of years teaching RE	**0-2 3-5 6-10 11-20 > 20**

Your name (Optional):

School and address:

Phone: _____ Fax: _____Email:

Thank you for participating in this survey. Please return the completed by fax on 07 3623 7247 or post to Dr Elizabeth Warren, Reply Paid No 116, ACU National, PO Box 247, Everton Park QLD 4053 by August 31, 2003.

APPENDIX C

ETHICAL CLEARANCE

Australian Catholic University
Brisbane Sydney Canberra Ballarat Melbourne

FILE COPY

ACU National

Human Research Ethics Committee
Expedited Review
Approval Form

Principal Investigator/ Supervisor: Dr.Elizabeth Warren	**Campus:** Brisbane
Co-Investigators:	**Campus:**
Student Researcher: Ms Catherine Meehan	**Campus:** Brisbane

Ethics approval has been granted for the following project:
Preschool Teachers' Beliefs and Practice::Learning and Teaching in Preschool with Regard to Religious Education

for the period: 29th July 2002 - 7th July 2003

Human Research Ethics Committee Register Number: Q2002.03-03

subject to the following standard conditions as stipulated in the *National Statement on Ethical Conduct in Research Involving Humans* (1999):

(i) that Principal Investigators / Supervisors provide, on the form supplied by the Human Research Ethics Committee, annual reports on matters such as:
- security of records
- compliance with approved consent procedures and documentation
- compliance with special conditions, and

(ii) that researchers report to the HREC immediately any matter that might affect the ethical acceptability of the protocol, such as:
- proposed changes to the protocol
- unforeseen circumstances or events
- adverse effects on participants;

and subject to the following special conditions being met, as stipulated by the Human Research Ethics Committee:

1.0 At B.3 4.2: The beginning date for data gathering will be later than the date shown.
2.0 Report details of the way in which participants in the survey will be invited to volunteer for selection for the interview phase.
3.0 Note that the basic details of this process should be presented in the information letter. Participants need to be advised of the basis on which selection, from among those who volunteer, of those to be observed and taped is to be made. The information letter should be written in the second person.
4.0 Re: Gathering, Security, Disposal of data etc: At E2.1 & E2.2 – Specify the location with McAuley. (The Committee requires this information since the Committee may wish to visit the location at some time to audit the storage security and so on).
5.0 Re: Information letter to participants: Include a sentence directly inviting reader to participate.

The Principal Investigator / Supervisor is requested to note the following comments:

1.0 3.2: C.1 Delete extraneous material the second line of the description of the project.
2.0 4.2: A correction is needed in C.1 "...and the factors that factors that impact..."; A spelling correction is needed at C.2 "beleifs" – should be "beliefs";

3.0 4.4: At E1.2⊗1) and (2) – Add some detail about the other forms in which the data will be recorded (eg databases, electronic documents and/or statistical packages).

4.0 4.6: The content of the letter to directors would be improved by revision. This letter is a "request for permission to approach school principals". Directors will not receive any "treatment" from the researchers and revision could clarify its meaning and intention. A correction is needed in the project title in the letter to principals ie spelling "Beleifs – should be Beliefs".

Within one month of the conclusion of the project, researchers are required to complete a *Final Report Form* and submit it to the local Research Services Officer.

If the project continues for more than one year, researchers are required to complete an *Annual Progress Report Form* and submit it to the local Research Services Officer within one month of the anniversary date of the ethics approval.

Signed: ..... Date: 9/8/02

(Chair, Expedited Review Panel, HREC)

TO BE COMPLETED BY THE PRINCIPAL INVESTIGATOR OR BY THE SUPERVISOR AND STUDENT RESEARCHER

The Principal Investigator, or the Supervisor and Student Researcher, are to sign, date and return this form to the local Research Services Officer. Evidence of compliance with any special conditions set by the HREC should be provided when the form is returned. Please note that data-collection must not commence until the stipulated special conditions have been met.

The date when I/we expect to commence contact with human participants or access their records is: 28/7/02

I/We hereby declare that I/We am/are aware of the principles and requirements governing research involving human participants, as expressed in the Human Research Ethics Committee's *Guidelines*, and I/We agree to the standard and special conditions (if applicable) stated above.

Signed: ..... Date: 14/8/2002

[Principal Investigator or Supervisor]

Signed: ..... Date: 14/8/2002

[Student Researcher]

TO BE COMPLETED BY THE CHAIR OF THE EXPEDITED REVIEW PANEL

I confirm that the special conditions stipulated by the HREC in relation to the commencement of data-collection have been met and that the conditions to be adhered to in the course of the project have been acknowledged by the researcher/s.

Signed: ..... Date: 20/8/02

APPENDIX D

SAMPLE INFORMATION LETTERS

FOR

PRINCIPALS AND TEACHERS

PHASE ONE AND PHASE TWO

INFORMATION LETTERS

FOR

PRINCIPALS, TEACHERS & FAMILIES

PHASE ONE

Australian Catholic University
School of Education
Brisbane Sydney Canberra Ballarat Melbourne
Queensland

Australian Catholic University Limited
ABN 15 050 192 660
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Telephone 617 36237148
Facsimile 617 3623 7247
Email:schooleduc@mcauley.acu.edu.au
www.acu.edu.au

CRICOS registered provider:
00004G, 00112C, 00873F, 00885B

Dear Principal/ REC,

I am writing to you to ask for assistance and for your permission for Early Childhood Teachers in your school to complete a short questionnaire for my research project. It is well known that teachers' knowledge and beliefs about learning provide a foundation for the teaching strategies used in classrooms. This study investigates Early Childhood Teachers' beliefs about teaching, learning and Religious Education. It also explores the factors that impact on teacher's day to day practice.

The early childhood teachers at your school can be involved by taking 20 to 30 minutes to complete the attached questionnaire.

In order for the study to have improved validity I need to get at least 300 survey returns. It is anticipated that the research will contribute to the fields of early childhood and Religious Education. The study is unique in that it is the first study of its kind in the world. It is expected that the research will provide Early Childhood teachers in Catholic schools, an opportunity to highlight their practice with regard to Religious Education in an early childhood setting. The research may also have implications for curriculum development, policy and professional development.

I have received permission from your Diocesan Director to approach the schools in the Diocese.

Teachers are free to choose not to be involved in the research. There will no questions asked. Similarly, teachers who elect to participate in the research may discontinue their involvement at any time. Withdrawal from the research will not prejudice the participant in any way. Confidentiality of teacher and their school will be maintained at all stages of the project and in any subsequent reports or publications.

If you do not give permission for teachers to be involved please send an email to Catherine Meehan at the address below.

If you do give permission, an information letter and survey have been attached to this fax. Please photocopy enough copies for your Early Childhood Teachers and return them to Dr Elizabeth Warren at the address below.

Any questions regarding this project should be directed to the following people:

Dr Elizabeth Warren (Head of School)
School of Education
McAuley Campus
PO Box 456 Virginia QLD 4014
Email: e.warren@mcauley.acu.edu.au

Catherine Meehan (Ph D Student)
c/o School of Education, McAuley Campus
C.Meehan@mcauley.acu.edu.au

At the completion of the research, it is anticipated that the participants will be provided with a letter outlining the results of the research.

This study has been approved by the Human Research Ethics Committee at Australian Catholic University.

Yours sincerely,

Dr Elizabeth Warren Catherine Meehan (Ph D student)

July 10, 2003

Dear Early Childhood Teacher,

RE: Research project about early childhood teachers' beliefs about learning, teaching and Religious Education.

Your knowledge and beliefs about children's learning provide a foundation for the teaching strategies used in your setting. The study is investigating Early Childhood teachers' beliefs about teaching and learning. The study is also exploring the factors that impact on your day to day classroom practice, in particular, with regard to Religious Education. The study is unique in that it is the first study of its kind in the world. It is expected that the research will provide Early Childhood teachers in Catholic schools with an opportunity to highlight their classroom practice with regard to Religious Education in an early childhood setting. The research may also have implications for curriculum development, policy and professional development.

You are asked to be part of this study by completing the attached questionnaire. Most people take 20 minutes to complete the questionnaire. It is important for the validity of the study that we get at least 300 surveys back.

You are free to choose not to be involved in the research. Your identity will remain confidential at all stages of the project and in subsequent reports or publications.

Any questions regarding this project should be directed to the following people:

Dr Elizabeth Warren (Head of School)
School of Education
Email: e.warren@mcauley.acu.edu.au

Catherine Meehan (Ph D Student)
c/o School of Education, McAuley Campus
c.meehan@mcauley.acu.edu.au

At the completion of the research, it is anticipated that you will be provided with a letter outlining the results of the research.

This study had been approved by the Human Research Ethics Committee at Australian Catholic University.

In the event that you have any complaint or concern about the way you have been treated during the study, or if you have any query that the Investigator or Supervisor and Student Researcher has (have) not been able to satisfy, you may write to the Chair of the Human Research Ethics Committee care of the nearest branch of the Research Services Unit.

Chair, HREC, C/o Research Services, Australian Catholic University
PO Box 456, Virginia. QLD 4014 Tel: 07 3623 7294 Fax: 07 3623 7328

Please note that any complaint will be treated in confidence and fully investigated. The participant will be informed of the outcome.

Yours sincerely,

Dr Elizabeth Warren Catherine Meehan July 10, 2003

INFORMATION LETTERS

FOR

PRINCIPALS, TEACHERS & FAMILIES

PHASE TWO

Australian Catholic University
School of Education
Brisbane Sydney Canberra Ballarat Melbourne
Queensland

Australian Catholic University Limited
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1100 Nudgee Road Banyo QLD 4014
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Email:schooleduc@mcauley.acu.edu.au
www.acu.edu.au
CRICOS registered provider:
00004G, 00112C, 00873F, 00885B

Dear Principal,

I am writing to you again to ask for assistance and for your permission for XXXXXXXX at your school to be part of the second Phase of my research project. Last year, she completed a survey that asked about teachers' beliefs about learning, teaching and Religious Education. It is well known that teacher's beliefs and knowledge provide a foundation for the teaching strategies used in classrooms. This study investigates Early Childhood Teachers' beliefs about teaching, learning and Religious Education. It also explores the factors that impact on teacher's day to day practice.

XXXX has agreed to be part of the second Phase of my study, subject to your agreement. This will involve me spending time in her classroom, observing her teaching and talking in depth with her about what she does and why. I will take some digital photos of her in the classroom and these will be used in my discussions with her as examples of her classroom practice. I have tentatively suggested to XXXX that I come to XXXXXX from Monday June 7 to Wednesday June 8, 2004 inclusive. I propose to spend Monday and Tuesday in XXXX's classroom and some time on Tuesday during her release time to interview her.

The study is unique in that it is the first study of its kind in the world. It is expected that the research will provide Early Childhood teachers in Catholic schools, an opportunity to highlight their practice with regard to Religious Education in an early childhood setting. The research may also have implications for curriculum development, policy and professional development. I have received permission from your Diocesan Director to approach the schools in the Diocese.

Teachers are free to choose not to be involved in the research. There will no questions asked. Similarly, teachers who elect to participate in the research may discontinue their involvement at any time. Withdrawal from the research will not prejudice the participant in any way. Confidentiality of teacher and their school will be maintained at all stages of the project and in any subsequent reports or publications.

If you do not give permission for teachers to be involved please send an email to Catherine Meehan at the address below. If you do give permission for XXX's continued involvement, an information letter and permission forms have been attached for XXX and the parent's in her classroom survey have been attached to this letter.

Any questions regarding this project should be directed to the following people:

Dr Elizabeth Warren (Head of School)
School of Education
McAuley Campus
PO Box 456 Virginia QLD 4014
Email: e.warren@mcauley.acu.edu.au

Catherine Meehan (Ph D Student)
c/o School of Education, McAuley Campus
C.Meehan@mcauley.acu.edu.au

At the completion of the research, it is anticipated that the participants will be provided with a letter outlining the results of the research.

This study has been approved by the Human Research Ethics Committee at Australian Catholic University.

Yours sincerely,

Dr Elizabeth Warren Catherine Meehan (Ph D student)

May 3, 2004

Australian Catholic University
Brisbane Sydney Canberra Ballarat Melbourne

School of Education
Queensland

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www.acu.edu.au

CRICOS registered provider:
00004G, 00112C, 00873F, 00885B

Dear XXXX,

RE: Research project about Early childhood teachers' beliefs about learning, teaching and Religious Education.

Your knowledge and beliefs about children's learning provide a foundation for the teaching strategies used in your setting. The study is investigating Early Childhood teachers' beliefs about teaching and learning. The study is also exploring the factors that impact on your day to day classroom practice, in particular, with regard to Religious Education. The study is unique in that it is the first study of its kind in the world. It is expected that the research will provide Early Childhood teachers in Catholic schools with an opportunity to highlight their classroom practice with regard to Religious Education in an early childhood setting. The research may also have implications for curriculum development, policy and professional development.

You are asked to be part of this study by allowing your classroom practice to be observed and for you to be involved in an interview with me. The observation visits and interview will take place over three days (June 7-9, 2004). During the time I spend in your classroom, I will take digital photos, make notes and make an audio recording of my visit. I would also like to interview you after my observations so that I can discuss what I have observed so that I can write your story. If possible, I would like to get a copy of your approach to planning so that I can also use this in your interview.

At all times, you are free to choose not to be involved in the research. Your identity will remain confidential at all stages of the project and in subsequent reports or publications.

Any questions regarding this project should be directed to the following people:

Dr Elizabeth Warren (Head of School)
School of Education
Email: e.warren@mcauley.acu.edu.au

Catherine Meehan (Ph D Student)
c/o School of Education, McAuley Campus
c.meehan@mcauley.acu.edu.au

At the completion of the research, it is anticipated that you will be provided with a letter outlining the results of the research.

This study had been approved by the Human Research Ethics Committee at Australian Catholic University.

In the event that you have any complaint or concern about the way you have been treated during the study, or if you have any query that the Investigator or Supervisor and Student Researcher has (have) not been able to satisfy, you may write to the Chair of the Human Research Ethics Committee care of the nearest branch of the Research Services Unit.
Chair, HREC, C/o Research Services, Australian Catholic University
PO Box 456, Virginia. QLD 4014 Tel: 07 3623 7294 Fax: 07 3623 7328

Please note that any complaint will be treated in confidence and fully investigated. The participant will be informed of the outcome.

Yours sincerely,

Dr Elizabeth Warren Catherine Meehan May 3, 2004

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www.acu.edu.au

CRICOS registered provider:
00004G, 00112C, 00873F, 00885B

Dear Parents/ Carers,

RE: Research project about Early childhood teachers' beliefs about learning, teaching and Religious Education.

Teacher's knowledge and beliefs about children's learning provide a foundation for the teaching Strategies used in their classrooms. The study is investigating Early Childhood teachers' beliefs about teaching and learning. The study is also exploring the factors that impact on your day to day classroom practice, in particular, with regard to Religious Education. The study is unique in that it is the first study of its kind in the world. It is expected that the research will provide Early Childhood teachers in Catholic schools with an opportunity to highlight their classroom practice with regard to Religious Education in an early childhood setting. The research may also have implications for curriculum development, policy and professional development.

XXXXXX, your child's teacher has been asked to part of this study by allowing her classroom practice to be observed and to be interviewed. The observation visits and interview will take place over two days (June 7& 8, 2004). During the time I spend in her classroom, I will take digital photos, make notes and make an audio recording of my visit. I will use the digital photographs in the interview as a stimulus for discussion.

You are free to choose whether or not your child will be involved in the research. Their identity will remain confidential at all stages of the project and in subsequent reports or publications.

Any questions regarding this project should be directed to the following people:

Dr Elizabeth Warren (Head of School)
School of Education
Email: e.warren@mcauley.acu.edu.au

Catherine Meehan (Ph D Student)
c/o School of Education, McAuley Campus
c.meehan@mcauley.acu.edu.au

At the completion of the research, it is anticipated that you will be provided with a letter outlining the results of the research.

This study had been approved by the Human Research Ethics Committee at Australian Catholic University.

In the event that you have any complaint or concern about the way you have been treated during the study, or if you have any query that the Investigator or Supervisor and Student Researcher has (have) not been able to satisfy, you may write to the Chair of the Human Research Ethics Committee care of the nearest branch of the Research Services Unit.
Chair, HREC, C/o Research Services, Australian Catholic University
PO Box 456, Virginia. QLD 4014 Tel: 07 3623 7294 Fax: 07 3623 7328
Please note that any complaint will be treated in confidence and fully investigated. The participant will be informed of the outcome.

Yours sincerely,

Dr Elizabeth Warren Catherine Meehan May 3, 2004

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TEACHER CONSENT FORM

Teacher's copy

Title of project: Early childhood teachers' beliefs and practice with regard to learning, teaching and Religious Education.

Name of student: Catherine Meehan

Name of Supervisor: Dr Elizabeth Warren

Program enrolled: Doctor of Philosophy

I …… (teacher) have read and understood the information provided in the attached letter. Any questions I have asked have been answered to my satisfaction. I agree that I will participate in the research, realizing that I can withdraw my consent at any time. I agree that research data for the study may be published in a form that does not identify me or my school in any way.

Name: ……..

Signature: …… Date: ……..

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Queensland

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CRICOS registered provider:
00004G, 00112C, 00873F, 00885B

PARENT/CARER CONSENT FORM

Parent/ Carer's copy

Title of project: Early childhood teachers' beliefs and practice with regard to learning, teaching and Religious Education.

Name of student: Catherine Meehan

Name of Supervisor: Dr Elizabeth Warren

Program enrolled: Doctor of Philosophy

I …… (parent/carer) have read and understood the information provided in the Attached letter.

Any questions I have asked have been answered to my satisfaction. I agree that my child…….. may participate in the research, realizing that I can withdraw my consent at any time. I agree that research data for the study may be published in a form that does not identify my child or school in any way.

Name: ……..

Signature: …… Date: ……..

APPENDIX E

SEMI-STRUCTURED

INTERVIEW PROTOCOL

PHASE TWO

Phase 2 Interview schedule

1. DEMOGRAPHICS

Firstly, can you tell me about yourself?

(Age group, Education, Teaching Experiences, Recent Professional Development, Interests)

The profile families attending school in terms of their commitment to church – Being catholic.

1. Do they attend school liturgies?.
2. What function does the church have in student's prior knowledge and understanding of RE issues?
    a. What role does the school have?
    b. What is your role in developing children's understanding and knowledge of the Church?

What is the preschool/preps role within the school? Separate or active part of school community?

What does a typical day look like in your classroom?

2. BELIEFS ABOUT LEARNING

How do you view learning and the learners in Preschool/Prep?

Describe your beliefs about young children, their learning and development? How do children learn?

What factors are supportive of learning? What factors have a negative impact on learning?

What do you believe preschool aged children need to know?

Describe what you do to promote literacy? Numeracy?

How would you define school readiness?

How do you monitor children's knowledge, skills and learning?

Which theories of child development have been most influential for you? In your initial teacher training? Recent professional development?

3. BELIEFS ABOUT TEACHING

What do you believe are the best ways to teach young children?

What is effective? Why?

How would you describe your approach to teaching?

Are you confident about teaching young children? If so why – if not why not.

What are your teaching strengths? What are your teaching weaknesses?

Do you use a framework or syllabus to plan and teach from? What is it? How do you use it?

Can you tell me about what syllabus and curriculum documents you use to inform your planning?

Can you talk me through your approach to planning?

What are the criteria you use for including experiences into your program? Goals- short and long term? Philosophy of teaching? Flexibility or forward planning?

Look at these photos…. Can you tell me your reasons for the room layout? What about the outdoor area? What things about this room are important to you? Why? What type of environment are you trying to create?

How is time managed in your classroom? Interruptions? Expectations? Constraints?

What experiences would children be involved in, for the most time? The least time?

4. BELIEFS ABOUT CHILDREN'S LEARNING IN RE

What do you think preschool aged children need to know in the curriculum area of RE?

How do you monitor children's knowledge, skills and learning in RE?

5. BELIEFS ABOUT TEACHING RE

What do you believe teaching RE in preschool should be?

What are your views on the best teaching methods to use in RE for preschool aged children?

Do you use a framework or syllabus to plan and teach RE?

How flexible are you in teaching RE? Can you talk me through your approach to planning?

What are the criteria you use for including experiences into your program? Goals- short and long term? How do these fit with your beliefs about teaching? Philosophy of teaching? Flexibility or forward planning?

Look at these photos…. Is the environment changed or the same for RE?

(Can you tell me your reasons for the room layout? What about the outdoor area? What things about this room are important to you? Why? What type of environment are you trying to create?)

Are there school expectations about the teaching of RE?

Are these school expectations supportive of the preschool/prep pedagogy?

Are you confident about teaching RE If so why – if not why not.

How is time managed in your classroom? Interruptions? Expectations? Constraints?

What experiences would children be involved in for RE, for the most time? The least time?

RE TEACHING PRACTICE- WHAT DOES THE CLASSROOM LOOK LIKE?

(Use photos as a stimulus… Explore with teacher)

What does RE look like in your class? Is this practice consistent or similar to general practice? Why ? Why not?

If so how –

- Activities (Types of activities)
    - How it is conducted?
    - Grouping of children
    - Set up of the classroom
    - Materials – how they are set up

Content

Time

The teachers' role

- Directed teaching
- Guide or facilitator
- Questioning changes

If it does change, why?

Confidence

Knowledge of RE

Influenced by outside factors

APRE

Parish Priest

Parents

Children's role

Different expectations of children

If so what are they?

Different expectations of their prior knowledge

How does the documentation impact on teaching of RE?

-Is it different from how other curriculum documents impact on your teaching?
-Is planning different for RE.

FACTORS THAT INFLUENCE TEACHING

What factors have the greatest influence on your teaching? (In particular, Teacher's beliefs about teaching and learning influence practice when teaching RE.)

How would you describe your relationship with your teacher's aide?

Which relationships are important to you and assist you with your teaching? Why?

Which relationships provide challenges to you teaching? Why?

What role do families have in your program? Why?