INFLUENCES OF

MOTIVATIONAL ORIENTATION

ON ACADEMIC ACHIEVEMENT WITHIN THE

CONTEXT OF LOWER AND UPPER

PRIMARY YEAR LEVELS

Submitted by

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Signed: _____ Dated: 22nd August 2006

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ABSTRACT

Many researchers have completed a range of studies to evaluate the relationship of intrinsic, extrinsic and amotivation, particularly on how it influences on a student's academic achievement. This study expanded on these studies by examining the relationship of intrinsic and extrinsic motivation within the context of lower and upper primary school classrooms. One issue that has received minimal attention is the relationship between intrinsic and extrinsic motivation and academic achievement in young students. In order to examine this relationship, students completed a motivation questionnaire (Academic Motivation Scale), as well as a Standardised Academic Test (State-wide Government Year 3 & 7 Tests). Correlational analysis identified the relationship between these constructs and was used to examine the connection between students' gender and motivational orientation. It was hypothesised that students operating from the intrinsic motivation perspective, are more likely to be high achievers within their year level. It was furthermore hypothesised that students in the lower year level would show higher levels of intrinsic motivation and as students progressed through primary school intrinsic motivation levels would decline while extrinsic motivation would increase. The results of this research study concluded that high academic achievers operated with high levels of both intrinsic and extrinsic motivation. The study also discovered that there is a decline in both intrinsic and extrinsic motivation as students progress through their primary education.

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THE RESEARCH CONTEXT

1.1.   INTRODUCTION

The purpose of the chapter are to (a) describe the contextual issues that surround the development of the project, (b) discuss the rationale for the research problem, (c) articulate the purpose of the research (d) outline the evolution of the research questions, and (e) acknowledge the limitations of the study. First chapter of this thesis will introduce the research study. In addition, this chapter outlines the theoretical framework and the design utilised in the methodology of the research study. The chapter concludes with an outline of the entire thesis. The chapter contains the following sections:

Section 1.2 provides an introduction to the context of the research.

Section 1.3 identifies the research problem and the purpose of the research.

Section 1.4 highlights the limitations of the research.

Section 1.5 provides an overview of the thesis structure.

Figure 1.1 presents an overview of the chapter.
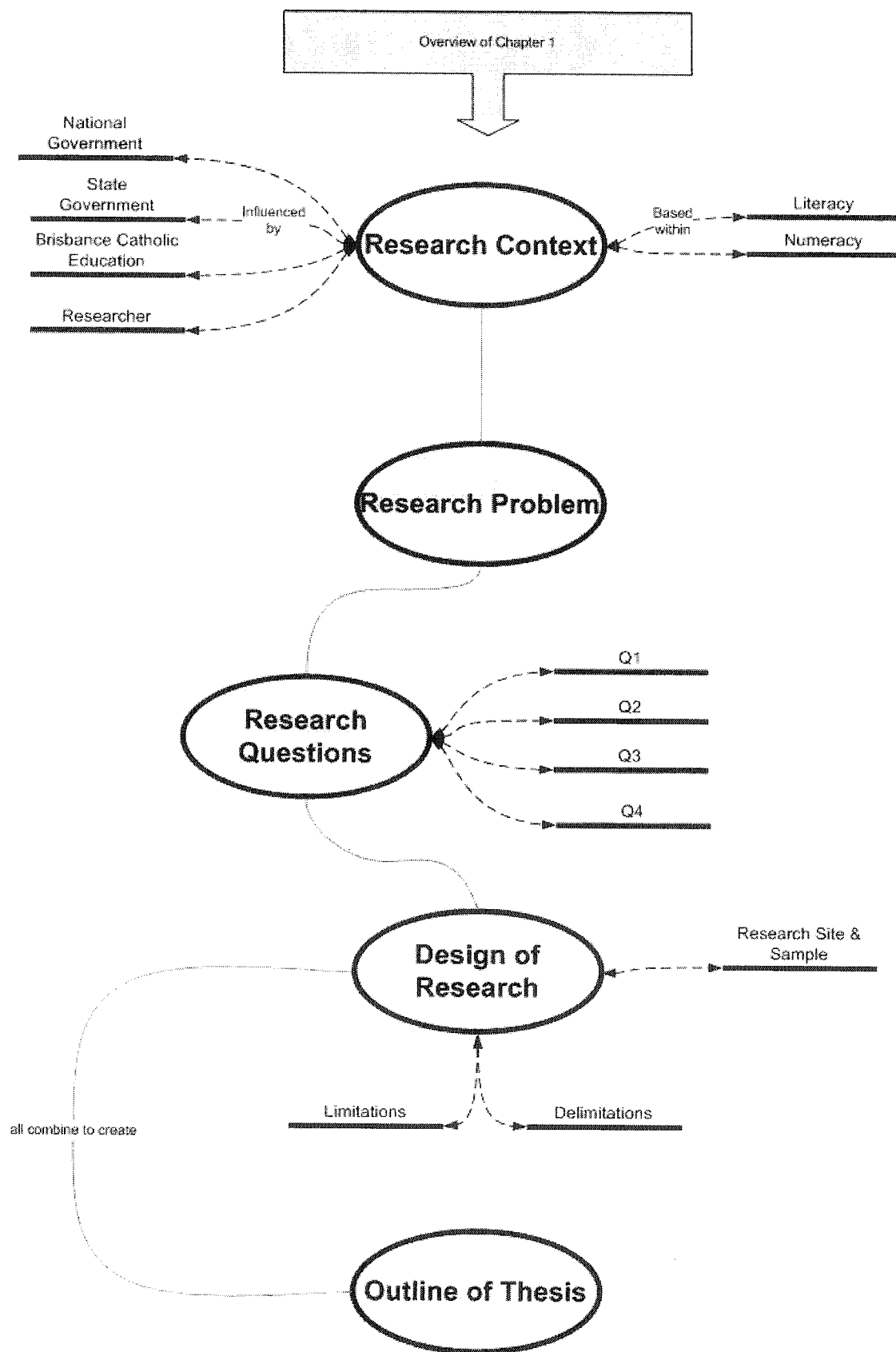
Figure 1.1.   Overview of Chapter 1

1.2. INTRODUCTION TO THE RESEARCH

The overall aim of this study was to investigate the relationship between lower and upper primary school students' motivational orientation and their academic achievement. Lower and upper primary grades were chosen for several reasons. Firstly, academic achievement is an important concern for teachers and, in particular, teachers within the primary school context. Previous researchers have found that, by the fifth grade, students show a general decline in their interest in academic subjects (Eccles, Midgley, Wigfield, Buchanan, Reuman, Flanagan & MacIver, 1993). Thus, it is important to examine students' motivational orientations in the early years of their formal schooling and the effect it appears to have on their academic achievement levels. Secondly, the majority of research with regards to motivation and its impact on academic achievement has been conducted with students from the upper secondary or tertiary level. There is a paucity of research that has focused on motivational change, within a primary school context. Thirdly, many studies suggest that students' motivational orientations can be assessed with reliability by the fifth grade (Harter, 1981, 1982; Meece, Blumenfeld, & Hoyle, 1988; Thorkildsen & Nicholls, 1998). Examining the differences between lower and upper primary school would provide insight for teachers with regard to when changes occur and what their impact on academic achievement would be. Fourthly, early childhood schooling studies on motivation have been minimal, and research into this important learning stage of a student's schooling would be beneficial to both students and educators.

Early years form the foundations of traditional schooling life. In the few studies that have been performed, it was found that for older students as they developmentally advanced through the year levels their intrinsic motivation decreased (Harter 1980, 1981; Lepper, Sethi, Dialdin & Drake, 1997). This illustrates the importance of examining motivational factors at the beginning of schooling, early in a students' formal education, when motivation appears high (White, 1959). A secondary aim of this study is to develop an instrument appropriate to primary school settings that will measure the type of motivation that younger students are orientated towards.

The findings of this study, have the potential to assist teachers to: (a) understand the type of motivational orientations students are operating out of; (b) develop learning

opportunities appropriate to motivational orientation; and (c) better understand how to motivate students when their interest levels are lacing.

1.2. THE RESEARCH CONTEXT

When examining the current context of motivation and its effects on academic achievement, it is important to identify the two main constructs being assessed in this study - literacy and numeracy. Before delineating the reasons why literacy and numeracy are the foundations of the education system, it is important to develop an understanding of what literacy and numeracy are.

1.2.1. Defining Literacy and Numeracy

Literacy is the ability to read and use written information and to write appropriately in a range of contexts. It also involves the integration of speaking, listening, viewing, and critical thinking with reading and writing and includes the cultural knowledge which enables a speaker, writer or reader to recognise and use language appropriate to different social situations (Ministerial Council for Education, Employment, Training and Youth Affairs (MCEETYA), 1997).

Numeracy has been described as, "abilities that include interpreting, applying and communicating mathematical information in commonly encountered situations to enable full...participation in a wide range of life roles" (The Literacy and Numeracy Strategy, 1994, p. 9), as well as the ability to use mathematical concepts in, "solving personal and social problems of everyday life" (Review of school curriculum – Literacy and Numeracy: Equal Partners in Learning, 1993, p. 5). The Queensland School Curriculum Council described numeracy as, "the manifestation of practices and dispositions that accurately, efficiently, and appropriately meet the demands of typical everyday situations involving number, space, measurement and data" (Position paper: Numeracy, 2001, p.3). In these definitions of numeracy, everyday use of numeracy is highlighted as an important factor for the learning and teaching of numeracy skills.

Just as numeracy is taught for functionability in society, so too is the formal study of literacy. "Literacy is fundamental to curriculum areas in that it is involved in all teaching and learning activities" (Position paper: Literacy, 2001, p. 11). Hence, all teachers are teachers of literacy and numeracy. Literacy is a core business for

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Education Queensland, for all schools, in every classroom, in every key learning area, and for every teacher of students in Years P-12 (The Literate Futures: Report of the Literacy review for Queensland State Schools, 2000, p. 58). It is important to understand that, "Literacy is essential for learning; therefore, literacy development is integral to teaching" (Whole-school Literacy Planning Guidelines, 2002, p. 5). Everything that people participate in uses some basic function that originates out of literacy practises. It is for this reason that literacy is cited as a basic skill. Thus within the primary context, literacy and numeracy are the core dynamics of formalised study, and therefore form a major component of this study as representing key dimensions of academic achievement.

1.2.2. National Context

In defining Literacy and Numeracy, it is important to examine how authoritive governing bodies view their importance within the educational experience of students. Within this study, the researched schools' governance is strongly influenced by both National and State agendas. Being Catholic schools, they are also situated within the Brisbane Catholic Education Archdiocese Office. At the National level, the Commonwealth Government of Australia recognises the importance of literacy and numeracy in producing students capable of integrating themselves successfully into society. The National Literacy and Numeracy goal is, "that every child leaving primary school should be numerate, and able to read, write, and spell at an appropriate level" (MCEETYA, 1997)

1.2.3. State Context

After paying due consideration to the national goals for Literacy and Numeracy in education, it is importance to then examine the position of the State Government. Their governing power influences the emphasis placed on achieving certain education goals within the system. The overarching theme of Queensland State Education published documents of QSE-2010 (Literate Futures), focuses mainly on why students should be literate and numerate. It states that,

> *Queensland schools must develop ways to equip students to live better with the complexity, uncertainty and diversity that arise from changes to families, cultures,*

economies, information technologies, governments and the workforce in the twenty-first century,

and that,

...students must become active and reflective Australian citizens, with the ability to participate in and shape community, economic and political life. The ability to engage in lifelong learning in formal and informal settings, problem-solving, and critical thinking will be essential in the knowledge economy and information society of the future.

These statements emphasise, once again, the importance of the teaching of literacy and numeracy to better equip students for life beyond schooling.

Broader community attitudes towards, and expectations of, schooling are centred on quality, equity and accountability and the full, active engagement of all young people in the learning process. Parents, business, industry and the wider community are especially concerned that within a well-rounded education, every child is taught to master basic skills (numeracy and literacy). More than that, parents expect schools to address holistically the learning needs of their children and to equip them to participate fully in democratic society. (Review of School Curriculum, 1993, p.9)

Currently, the Queensland State Government is requiring schools to focus on strategies that improve their literacy teaching practices. The reform in whole-school literacy planning is about learning, refining and developing. It is about being aware of, and responsive to, the changing needs of our diverse students and their social contexts (Whole-school Literacy Planning Guidelines, 2002, p. 4). To do this, the State Government demands that a renewed focus on professional development of teachers is required, and that it is integral to improving learning outcomes (Literate futures: Report of the Literacy review for Queensland State Schools, 2000, p. 13).

It is because Numeracy and Literacy are seen as important factors to life skills in society that concerns about drop out rates from secondary education have motivated Education Queensland into researching pedagogies that engage students, with the aim of finding a solution to this problem. This engagement of students initiated research by the State Government resulting in recently published papers on the Queensland School Reform Longitudinal Study (QSRLS, 2002), which is often referred to as 'Productive Pedagogies'. It verified that teachers, and approaches to

teaching, could make a significant difference to the quality of student learning outcomes. Underpinning this framework is the belief that literacy and numeracy are essential learning for all students.

1.2.4. Brisbane Catholic Education

This study occurred within the context of Catholic schools. The institution governing these independent schools within South-East Queensland is the Brisbane Catholic Education Archdiocese Office. At present the Brisbane Catholic Education Archdiocese's focus is on developing models of teaching that effectively implement the Queensland Studies Authority's (formerly known as the Curriculum Council) Outcome Based syllabi.

The author's school aims for every student to be successful. The school acknowledges the importance of engaging students when participating in academic tasks and has identified that teachers need to find interesting ways of engaging students by using many differing approaches. To do this, the school challenges and supports teachers to look for improvements in their teaching strategies. This is obtained through regular and focussed professional development.

Within this context, the entire school teaching staff recently participated in an in-service, 'Aligning the curriculum with assessment and pedagogy'. A critical concern of teachers was that of engagement. Productive Pedagogies discovered that by contextualising learning, students adapted better to the learning processes (QSRLS, 2002). Therefore, it is not only students working completely independently, but students being scaffolded by teachers while making their own choices and being self-determinate. Teachers are challenged to create classrooms that are okay to fail in, however it is not okay to not try in and therefore helps students to start to display risk-taking behaviour. Motivating students to learn is seen as an important factor and part of the productive pedagogies. By treating students in a deficit model, a teacher will receive deficits from these students (Mills, 2003).

Within all these agendas to support students' literacy and numeracy development within an environment that is engaging, contextualised and supportive. However, the one issue that is missing from all this documentation and policy is the role one's motivation plays in academic achievement.

1.2.5. Context of the researcher

My experience includes five years of working under the employment of Brisbane Catholic Education. Three years experience occurred in the lower primary school context with Year 2, one year with a middle primary class of Year 5 students and another year relief teaching in various classroom settings from preschool to Year 7. Within these contexts, it was noticed that students' motivation levels towards their academic studies appeared to decline as they progressed through primary school. This was evidenced through students' lack of enthusiasm and willingness in completing academic tasks. As students progressed to the middle and upper levels of primary school, they seemed to require more personal choice in topics studied and demanded an increased sense of autonomy in their studies. Another issue detected as students progressed through schooling was an apparent decrease in their levels of perceived competence. These negative tendencies made the research wonder about the effects of these motivational trends on students' academic achievement levels, especially in literacy and numeracy.

During my period of employment, I have been involved in a number of achievements relating to literacy practices within Catholic Education, including a team member in formulating the 'School Literacy Plan'. The committee for this plan was assigned to validate reform of current literacy practices and initiate the renewal of the literacy programme at the school. This task was achieved by data driven research. The committee surveyed both teachers and parents on their opinions of current literacy practices and trends. The data was analysed to initiate change within the school. Other initiatives put into practice by the researcher included the implementation of the 'four resource model' (Freebody & Luke, 1990, 2003; Luke & Freebody, 1998) into the literacy program. The school also developed and implemented a new spelling policy for the school's literacy plan, which would assist students in becoming learners that are more literate. Aspects of this policy included more choice by the student learners and the use of words contextually relevant to their current learning. These factors were deemed more motivating to student learning, especially given that this educational activity of spelling is not designed to be intrinsically interesting. Through the actions of these initiatives, the researcher noticed the importance of motivating students in literacy associated academic endeavours. Newly established policies and

procedures, both within the school and more widely in the Catholic Education system, started acknowledging the effects of choice (self-determination) and contextualisation of learning as beneficial in increasing students' achievements.

These current trends to engage students and contextualise their learning to make them be life long learners had the researcher questioning the importance of motivation in a students' academic achievement during the beginning of their formal education. Current policy documents note the significance of literacy and numeracy development in students; however fail to mention the consequential importance of motivation in achieving these outcomes.

1.3. RESEARCH PROBLEM (PURPOSE)

With the current focus on students and their willingness to learn, it brought to the author's attention that learning seems to be valued less and less by the students, especially as they progress through formal schooling. Students seem to enter their educational journey with a natural 'zest for learning'. They appeared to want to learn for its own sake and just for the knowledge of learning new and wonderful things. Intrinsic motivation seems to be a natural occurrence for these young and enthusiastic students. However, as they progress through their schooling years, their focus seems to shift towards motivators that are more extrinsic. Students give the impression that they value education less and just continue to complete learning activities to please others or as a means to an end. It is due to this observation that questions started to formulate in the author's mind as to why this seems to occur and if it occurs to what extent. The author questioned the importance of motivation in influencing academic achievement, and if these differences between the year levels truly existed.

There appears to be paucity of empirical research that focuses on young students and their motivation to learn. The purpose of this research was to understand the effect of motivational orientations on a students' academic achievement. In particular, this research study investigated the effect of this within two different primary school contexts, lower and upper year levels and explored the effect of gender and grade differences on both students' motivational orientation and their academic achievement levels.

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1.3.1. Research Questions

The research questions that guided this study were developed following a comprehensive review of literature in respect to motivation, its effect on academic achievement, and the influences of gender and grade on these factors. Four important insights in respect to motivation within the primary context were identified. First, motivation is different for different students at different stages. Second, academic achievement levels also vary according to these differential factors. Third, students' motivation influences their academic achievement levels. Finally, motivational orientation and motivation levels are difficult to measure, especially in early phases of schooling.

Based on these insights, the researcher identified the following research questions/statements to investigate:

Research Question 1: How does gender and grade affect students' motivational orientation within the primary school context?

This research question investigates the proposition that motivational orientation is different between the genders. The question explores differences of males and females in their motivational orientation and examines what motivational orientations each of these genders are most likely to be operating from. Differences in motivation also occur with students of different developmental stages. Previous studies commented on a noticeable decline in intrinsic motivations of students from grade five onwards (Anderson & Maehr, 1994; Eccles & Midgley, 1990; Eccles, Early, Frasier, Belansky & McCarthy, 1997; Miller & Meece, 1997; Wigfield, Eccles, Yoon, Harold, Arbretun, Freeman-Doan & Blumenfeld, 1997). This question allows the researcher to investigate if this trend exists as students progress from year 3 to Year 7 and if there are any other motivational changes as students progress through their formal primary education.

Research Question 2: How does gender and grade affect students' academic achievement levels within the primary context?

This research question investigates academic achievement levels by examining students' results in literacy and numeracy. Past literature has seen differences between the genders in regards to literacy and numeracy achievement levels (Dai,

2001; Frome & Eccles, 1998; Gang & Guiyang, 2000; Li & Adamson, 1995). Preconceptions of female dominance in literacy fields (Eccles, Alder & Meece, 1984; Phillips, 1987) or males exceeding females in numeracy domains (Eccles, Alder & Kaczala, 1982; Dai, 2001) have attempted to be altered over the years. This question examines if these ideas still exist within education today.

Research Question 3: Within the primary school context, what is the relationship between a student's motivational orientation and their academic achievement levels?

The literature has extensive references to the importance of motivation in influencing students' academic achievement levels (Alderman & Taylor, 1986; Gottfried, 1985; Grolnick, Ryan & Deci, 1991; Harter, 1981, 1983; Schunk, 1991). Many researchers acknowledge the importance of intrinsic motivation (Deci & Ryan, 1985; Dev, 1997; Gottfried, 1985). Although literature relating to this is extensive, the majority of these studies have focussed on adolescent students. There has been little research conducted within the primary school context, in particular the early years, influences the importance of such a question.

Research Question 4: Is there an instrument that can effectively measure and distinguish between motivational orientations of primary school students (especially students in the early years)?

This research question responds to the claim in the literature that students can be measured with reliability from the fifth grade (Harter, 1981, 1983; Meece, Blumenfeld & Hoyle, 1988; Thorkildsen & Nicholls, 1998). It stated that students prior to this particular stage of development have no real concepts of self and the reasoning behind their actions.

1.3.2. Design of Research

This research study is situated within the research paradigm of a quantitative orientation. It endeavoured to use empirical findings to generalise about student populations. These generalisations were formed from objective facts represented within the data. The methodology used was a survey approach. Questionnaires were used to collect the empirical data needed to statistically examine the research questions of this study. The exploration stage of this research study commenced with the use of two instruments to collect the data. The first motivational instrument,

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modified from Vallerand's 'Academic Motivational Scale (AMS-C 28)' (1993), measured the levels of students' intrinsic, extrinsic and amotivation. The second instrument gathered data to quantify their academic achievement levels in the areas of literacy and numeracy. The inspection stage of the research study utilised a MANOVA and t-tests to examine the relationships and correlations that existed between students' motivational orientations and their academic achievement levels. Exploration into gender and grade differences allowed causality of any correlation to be identified and examined further.

1.3.3. Significance of the Research

This research study is deemed significant for two main reasons. First, it addresses a lacuna within research regarding the effects of motivation in the early years of a student's formal school life. "One of the most important psychological concepts in education is certainly that of motivation" (Vallerand; 1992; p. 1004). It is a teacher's primary task to assist a student in their learning development. "Teachers are concerned about developing a particular kind of motivation in their students – the motivation to learn" (Woolfolk, 1995, p. 336). Within the educational field, it is important for teachers to understand why a student will learn and what they can do to facilitate students in getting motivated to learn. As Salvin suggests, "Students who are academically unmotivated to learn do not learn" (1987, p. 316), showing that it is important for teachers to be able to understand students' academic motivation. Thus motivating students towards appropriate goals is one of the critical tasks of teaching. Widely perceived goals for effective teaching are to: (a) get the students productively involved with the work of the class (to experience the state of motivation to learn); (b) develop in students the trait of being motivated to learn ("to educate themselves throughout their lifetime" {Bandura, 1993, p.136} – that is to become life long learners); and (c) get students to be cognitively engaged (to think deeply about what they study).

The concept of motivation helps teachers to understand and explain intriguing facts about students' behaviour and learning (Cole , 1992), which can result in better reporting on students, as well as aiding them in improving student learning practices. "Motivation is causally related to achievement, acting both as a means to achieve educational outcomes and as an end (aim) of the educational process" (Cole, 1992,

p. 309), indicating the importance of motivation and its effect on a student's ability to both learn and achieve. It should be noted, however, that student motivation is only partially influenced by classroom incentives. Other affective variables such as a student's interests, parental and teacher's interests in their achievement, as well as their own perceptions of their ability, have a major part to play when determining a student's motivational orientation (Henson & Eller: 1999). This is one of the limitations of a study within educational psychology. Although the motivational literature is extensive in the effects and importance of motivation on academic achievement, these studies have mainly focussed on adolescent students. Examination into the influences of motivation and academic achievement in the early years and the ability to consider how it develops and changes as students progress through the primary years of their formal education has the potential to benefit teachers and educators in developing teaching strategies and programs to best assist students in achieving their full potential.

Secondly, this research study developed a modified version of an instrument to measure the motivational orientations of students in the early years of primary education. By developing a clear and effective way of measuring younger students' motivational levels, study onto motivational trends through school can begin to be elaborated upon.

1.4. LIMITATIONS AND DELIMITATIONS

Notwithstanding the significance of this research, the following limitations and delimitations are acknowledged. First, this study was limited in its scope, as it focuses on only students within systemic Catholic primary schools in the Archdiocese of Brisbane. Furthermore, it concentrates its attention on only seven schools situated in North Brisbane. Hence, the findings presented are representative of a certain community and do not claim to represent the whole population. Second, this research did not control for prior achievement or ability level. Future studies in this area would benefit from controlling students' past performance and/or academic ability level. A longitudinal study examining the effects of students, their changes in motivational orientation and academic achievement results could be monitored throughout their primary schooling (Years 3, 5 & 7) to track the progression of such changes. Third, due to its design, it is inappropriate to make any clear statements

concerning causality. Finally, the hypothesised results from this study suggest that intrinsic motivation leads to higher academic achievement. However, it does not, rule out the very plausible possibility that academic achievement may have an influence on one's motivational orientation. Lastly, the study focuses on only a limited number of constructs. Considering the complexity of human nature and behaviours, it must be acknowledged that many other variables will influence educational outcomes such as academic achievement. Other variables to consider for future research could include constructs of learning styles, teaching styles, classroom environment or parental factors.

A delimitation of this study was that only two subject areas are to be measured to obtain academic achievement levels. As suggested by Gardner (1993), people operate out of a variety of intelligences. The State Wide Government Standardised Academic Test does not allow those students who operate out of intelligences other than Linguistical and Spatial/Mathematical to display their academic achievement levels. Aspects such as teachers' perspectives on their professional observations of students acting within the school environment have not been considered. This is suggested as a possible field to study in later research. One may hypothesise that teachers' perceptions may correlate to a student's own self-perception on their motivational orientation.

1.5. THESIS OVERVIEW

This first chapter explored the current contextual influences upon education to clarify the research problem. While it provided a succinct overview of the important aspects of this particular research study, the following chapters present a more detailed and comprehensive perspective.

Chapter two reviews literature within the fields of psychology and education to develop a comprehensive understanding of the concepts associated with motivation. First, it breaks down the theories behind motivation. A description of each different motivational orientation is provided, and how each relates to a students' academic achievement. Another essential inclusion within the literature is an exploration into the influences of gender and grade on motivational orientation. Although the literature on motivation is extensive this chapter, however, also highlights the paucity of research within the context of early primary education and addresses these gaps

by formulating questions of the research study. The chapter concludes by considering various teaching approaches to support and promote motivation in education.

Chapter 3 identifies the theoretical framework that was considered to best support this study. It examines the epistemological landscape in order to identify an appropriate research paradigm and to clarify the most suitable theoretical perspective for the exploration of the concept of motivational orientation and its effect on academic achievement. This chapter argues the case for a research paradigm of objectivism and a theoretical perspective of positivism with a survey approach. It also outlines how this survey approach is to be practically implemented by using questionnaires. Introduction of this research study's instruments and analysis into their reliability and validity are also discussed in this chapter.

Chapter 4 displays the data gathered by the research methods used in this study. In particular, it provides empirical analysis of the two instruments. The format of the display of the data follows the research questions. Examination, through a MANOVA and t-tests allows generalisations to be made about the schools' populations in regards to students' motivational orientations and their academic achievement. The chapter uses the research questions to guide the analysis of the data collected via the process outlined in the previous chapter.

Finally, chapter 5 uses the research questions to further analyse and discuss the data. This analysis and discussion provides a better understanding of the nature of motivation in the primary school context and its effect on academic achievement. It explores the importance of motivation in education and outlines implications of the study to the education profession. In addition, areas for further research are identified in this chapter.