CHAPTER FIVE

REVIEW AND CONCLUSIONS

5.1. INTRODUCTION

This final chapter reviews the previous chapters and draws conclusions on the results of the research study. The chapter is divided into five sections. The first three sections provide an overview re-examining: 1) the purpose of the study; 2) the context of the study; and 3) the design and methodology used by the research study, including a review of the instruments used in the data collection process. The fourth section reviews the research questions by outlining the empirical findings of the data and addressing important aspects of these results. The final section contains the conclusions of the research study. It outlines implications of the findings to the education profession and suggests areas for future research.

5.2. PURPOSE OF THE RESEARCH

This research was undertaken to explore the motivational orientations of students within the lower and upper primary school constructs and its effect on their academic achievement. A particular focus of this study was to begin to delineate why students achieve certain academic results and to identify what role their motivational orientation plays in these achievements. Four main aims were developed with this purpose in mind. The first aim was to establish what motivational orientations primary school aged students have and how a student's gender and grade influences their motivational orientation. This aim's main purpose was to discover if observed trends of motivational decline existed in preadolescents as they progressed through primary school. The second aim was to examine what differences occur in students' academic achievement levels in relation to gender and grade. The third aim combined the previous two by exploring the effects motivation had on academic achievement levels. Finally, the last aim was focussed on devising a motivation scaled instrument that would precisely measure motivational orientation and levels in
preadolescent, more specifically in the early years of primary education. Formed from these aims were the foundations for the research questions.

5.3. **CONTEXT AND DESIGN OF THE RESEARCH**

The aims of this research study were relevant to the context in which the study occurred. Agendas at a national, state and local level emphasise the importance of literacy and numeracy in a student's ability to function within society. Primary schools are the foundations to formal education and the pursuit of educating students. However, these policy documentations fail to mention the role motivation plays in achieving this. With a noticed decline in motivation as students progressed through primary school, a drop in enthusiasm and declining self perceptions, the author became aware of the consequential effect that these observed declining trends of students' motivation may have on students' academic achievement levels. With a main objective of formal education being to facilitate students in becoming literate and numerate, concerns of the importance of motivation in facilitating these aims were established.

The research study required empirical data to quantify the generalisations of the population. It used objective facts collected via a survey method in the form of questionnaires. Two instruments were used to facilitate the exploration of the aims of the research, namely a modified version of Vallerand's Motivational Scale to measure a students' motivations orientation and a standardised academic test administered by the government every year. These were administered to 330 students in total, from year 3 and year 7. Administration techniques followed exam procedures. Appropriate ethical and governing bodies were notified and permission was granted to collect data from the seven catholic schools participating in the research. On collection of the data, the analysis began. Through statistical analysis, including such testing procedures as the MANOVA and t-tests, results on the correlational relationships of the variables were obtained. On analysis of the results, various issues were raised with respect to students' motivation and academic achievement results. The issues mainly pertained to differences between the two major variables of gender and grade.

From the results, most students in the primary years seemed to display high levels of motivation. In particular, primary aged students displayed high characteristics of both
intrinsic and extrinsic motivational orientations. This same group of students displayed extremely low levels of amotivation.

As concluded in earlier sections of the thesis, there was a paucity of literature attempting to discover the motivational trends of early year primary students. Hence, the preadolescent context of primary school aged students as a major focus of this research study. The findings of this study appeared to indicate that in the earlier years of primary school, students are likely to exhibit extremely high levels of motivation, be it intrinsic or extrinsic. It appears that students at this stage of development are easily motivated to complete tasks. Students at this stage of development appeared to enjoy learning for its own sake and were motivated to learn in order to better themselves, while also enjoying external rewards for the completion of class tasks.

Findings from the motivational instrument also revealed that the younger students of the study answered questions to the extreme of Likert's scale. If an item was related to intrinsic or extrinsic motivation, students were more likely to answer with strongly agree, while amotivational items received responses of strongly disagree.

This also confirmed that there was a need to develop an appropriate scaled instrument to measure young students' motivation. Development of an accurate instrument to measure student motivation in the early years of education will enable educators to establish patterns, trends and links to causes of motivational decline of students as they progress through their schooling. With an instrument with more range of the scales and more diverse items, a more accurate representation of young students' motivation could be obtained.

Many of the common trends identified in the literature were confirmed by the results of this study. Literature states that students with high intrinsic levels of motivation achieve high academic results (Deci & Ryan, 1985; Deci, Vallerand, Pelletier & Ryan, 1991; Dev, 1997; Fortier, Vallerand & Guay, 1995; Gottfried, 1985). For this study, students who displayed high levels of intrinsic motivation did in fact receive high academic results however; these high academic achievers also displayed high levels of extrinsic motivation.

Another claim in past literature is that intrinsic motivation levels seem to decline from Year 5 onwards (Anderson & Maehr, 1994; Eccles & Midgley, 1990; Eccles et al,
The results of this study indicate similar findings. Although as intrinsic motivation levels declined from Year 3 to Year 7 students, extrinsic motivation levels also declined. It appeared that as a student progressed from Year 3 to Year 7 they tended to decline in both intrinsic and extrinsic motivations for completing classroom tasks. Amotivation levels remained at similar low levels whether a student was in Year 3 or Year 7. There was no incline or decline in the amotivational orientation of students.

A Pearson Bivariate Correlational Analysis was performed to measure the relationship between students’ motivational orientation and their academic achievement levels. These results yielded a 'nil effect'. This 'nil effect' emanated from the strong 'ceiling' and 'basement' effects obtained through correlational analysis of each motivational type with each of the literacy and numeracy scales separately.

The aim of this study was to investigate the motivations of primary school aged children. Examining students' motivations and its effect on their academic achievement levels was the main agenda for this study. The results of this study appeared to indicate that examinations of these two variables together at this stage of development in students' educational journey requires and warrants further examination. Results showed that motivation does have an impact on student academic achievement levels. It was discovered that high levels of both intrinsic and extrinsic motivation have a positive influence upon the outcomes of the attainment of high academic achievement. Findings of the research also noticed a decline in student motivation levels as they progressed through primary school.

5.4. RESEARCH QUESTIONS ADDRESSED

Four main research questions emerged as being important to this study. These emanated from the purpose for the research. The questions provided a useful framework for a summary of the findings. For the purpose of reviewing and addressing the important aspects of the research, each question is presented separately.

Research Question 1: How does gender and grade impact on students' motivational orientation within the primary school context?
This research question investigated the proposition that motivational orientation is different according to the gender and grades of students. Previous research has found that males and females are driven by different types of motivation when completing tasks. The majority of these findings were related to Atkinson’ attribution theory (1964) where students accredited success or failure to such factors as effort and luck. These research studies found that males are more likely to attribute success and achievement according to luck (Lightbody et al, 1995; Lightbody & Siann, 1996; Taylor, et al, 1993). Males tend to see extrinsic factors as influencing their achievement. It was presumed that therefore males would be more likely to use extrinsic rewards and motivators to assist in their learning habits. Females however, tend to attribute their success or failure to their effort (Gang & Guiyang, 2000). Drawn from this was the conclusion that females then would be more likely to exhibit signs of intrinsic motivation based on the internalisation of their influencing factors.

The analysis of the data from the motivational scaled instrument revealed that there were significant differences between the genders. The research study discovered that females had stronger intrinsic orientations in comparison to males. Females scored significantly higher on intrinsic items on the motivational scaled instrument than males. This concurs with the assumption that females would be more likely to exhibit signs of intrinsic motivation based on attributing their success or failures on effort. The study also revealed that males were more likely than females to show evidence of amotivational orientations. Thus showing that, males more than females, see their learning as uncontrollable by themselves. It appears from the research data that males are more likely to have incompressible motivations or do not care how or why they complete tasks. Another motivational finding within the gender variable was that there was no significant difference between the genders in relation to extrinsic motivations. Although differences occurred between the genders, it is also important to re-establish that both genders in the primary school context displayed high levels of intrinsic and extrinsic motivations, while also demonstrating low levels of amotivation. From these findings it can be deduced that although females have higher intrinsic motivations than males and males have higher amotivation levels than females, overall both male and female students in the primary school context of formal education have high levels of intrinsic and extrinsic motivations.
As explained in the initial chapter of this study, many researchers have commented on a noticed decline of intrinsic motivation in students as they progress through the formal school years of their education (Anderson & Maehr, 1994; Eccles & Midgley, 1990; Eccles et al, 1997; Miller & Meece, 1997; Wigfield et al, 1997). In particular, these studies have focused on students from Year 5 onwards through to adolescence. As observed by the researcher similar trends were evident in her school. A noticeable decline in students’ enthusiasm to academic studies and self-perceptions of academic achievement levels led to concerns about motivation levels of students. These concerns were confirmed by the results of the research study. The results revealed that the intrinsic motivations of students do significantly decrease from Year 3 to Year 7. The more alarming finding from the results is that not only intrinsic motivation decreases, but extrinsic motivation also significantly declined from Year 3 to Year 7.

Motivation is a vital part of students achieving academically. Conclusions from the study showed that motivations, both intrinsic and extrinsic, are declining as students progress though their formal schooling. Therefore, if educators wish to facilitate students in succeeding to become life long learners and function effectively within society, attention needs to be given towards the implementation of teaching strategies and procedures that promote students in using various motivations.

**Research Question 2:** How does gender and grade impact on 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 occur between the genders in regards to literacy and numeracy achievement levels (Gang & Guiyang, 2000; Frome & Eccles, 1998; Li & Adamson, 1995; Dai, 2001). It has been reported that males generally out perform females in mathematical areas (Eccles, Alder & Kaczala, 1982; Dai, 2001), while females tend to dominate over males in literacy fields (Eccles, Alder & Meece, 1984; Phillips, 1987). Results from the research study indicated similar findings. In relation to academic achievement levels, in the domains of literacy and numeracy, common stereotypical perceptions about the populations were reinforced by the sampled group of this study.
In relation to academic achievement level differences between the grades, Year 7 students obtained higher means in both literacy and numeracy than Year 3 students. A hypothesised occurrence, considering Year 7 students are older and have had four more years of education and learning than the Year 3 students. To properly examine grade differences in academic achievement levels a longitudinal study method should be utilised. Comparing two different groups of students at different stages of development is not an accurate representation of the trends of students’ achievement levels.

**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 extensively referenced 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 have acknowledged the importance of intrinsic motivation in achieving high academic results (Deci & Ryan, 1985; Dev, 1997; Gottfried, 1985). Results for this research study, in relation to the effects of particular motivational orientations on primary students’ academic achievement levels, were inconclusive. It was discovered that students who displayed high levels of intrinsic motivation achieved well in the academic areas of literacy and numeracy. This is congruent with many studies in the motivational field, stating that high levels of intrinsic motivation tend to lead to high academic achievement levels (Alderman & Taylor, 1986; Deci & Ryan, 1985; Dev, 1997; Gottfried, 1985; Grolnick, Ryan & Deci, 1991; Harter, 1981, 1983; Schunk, 1991). However, results also revealed that students who achieved high results academically also possessed high levels of extrinsic motivation. The findings also showed that the reverse was true. Low academic achievers displayed low levels of both intrinsic and extrinsic motivations. This inconclusive finding, in relation to this question, is mainly caused by the ‘nil effect’ in the correlational results of Pearson’s Bivariate Correlational Analysis. The high ‘ceiling effect’ in the results of intrinsic and extrinsic motivation correlated with academic achievement obscured the results and created the ‘nil effect’. The strong ‘basement effect’ in the amotivation and academic achievement correlational analysis also contributed to the ‘nil effect’. Conclusions from this indicated that students, who are highly motivated, either intrinsically or
extrinsically, are more likely to achieve high academic results than students with low levels of motivation are. Analysis and findings into the specific effects of each individual type of motivational orientation would need detailed instruments, especially in the context of an early childhood school setting.

**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). These researchers stated that students prior to this particular stage of development have no real self-concepts, and do not fully understand the reasoning behind their actions. Therefore, measurement of their perceptions about their own motivations would be difficult to accurately measure. In response to this claim, the researcher attempted to modify a pre-established instrument to make it more appropriate and readable to the primary school level.

Development of the instrument initially yielded reliability issues with the amotivational scaled items. However, after careful deliberation on the wording and phrasing of these items, the instrument acquired minor adjustments. The new and improved instrument acquired adequate measures of reliability. As a stand-alone instrument it was deemed as satisfactory, however, when results of the younger Year 3 students were compared to the more adolescent Year 7 students, discrepancies were noted. These results showed that the younger students were more likely to answer questions of each item in extremes. These students either strongly agreed or strongly disagreed with the motivational statements. This inadequacy of this instrument was made more evident when combined with a second instrument to examine correlational relationships. The 'extremes' of the Year 3 students resulted in strong 'ceiling' and 'basement' effects of correlational analysis of their motivational orientation and their academic achievement levels. Development of a more appropriate instrument to measure the motivations of preadolescent students warrants further investigation.
5.5. CONCLUSIONS OF THE RESEARCH

The next section situates these findings in terms of the literatures on motivation. Five main themes were identified in the literature, namely Motivation and Academic Achievements, Motivation and Gender, Young Children and Motivation, Developmental Changes and Motivation, and Teaching Practices.

5.5.1. Motivation and Academic Achievement

Within the literature, motivation is cited as an important and influential factor in students obtaining high academic achievement (Adelman & Taylor, 1986; Covington, 2000; Deci, 1975; Schunk, 1991) and that academic motivation positively influences upon the academic performance of students (Grolnick, Ryan & Deci, 1991; Guthrie, Wigfield & VonSecker, 2000; Keeves, 1986; Ntoumanis, 2001; Skinner, Wellborn & Connell, 1990). Past studies have also shown that to increase academic achievement and help children achieve academic success; motivation (of some kind, or another) should be encouraged by teachers and educators (Deci & Ryan, 1985; Gottfried, 1985; Lepper & Greene, 1978). The results from this research study delivered the same conclusions. Findings indicated that indeed motivation played a pivotal role in students' academic achievement levels. It found that those students who obtained high results in the academic aspect of this study, displayed high levels of motivation. The startling evidence was that high levels of both intrinsic and extrinsic motivation were both related to students' high academic achievement.

Previous research has stated that students operating out of intrinsic motivation have more likelihood to achieve academically (Deci & Ryan, 1985; Deci, Vallerand, Pelletier & Ryan, 1991). This research study concluded that these statements were true. Students who achieved academically operated highly out of an intrinsic motivational orientation. However, the study furthermore revealed that although these high academic achievers were highly intrinsically motivated, they possessed a motivational orientation that favoured extrinsic motivation as well. While some researchers suggest that extrinsic motivation undermines student's intrinsic motivation and perceive extrinsic motivations as having negative effects on their motivation to achieve (Deci, 1975; Harackewicz, Manderlink & Sansone, 1984; Kohn, 1991; Lepper & Greene, 1978), findings from this research denoted that high levels of motivation in general, either intrinsic or extrinsic motivation, is related to students'
academic success. It is for this evidential substantiation that this study’s findings coincide with other researchers’ findings that stated that there was no reason for teachers to resist implementing incentive reward systems into the classroom (Cameron & Pierce, 1994; Deci & Ryan, 1996). While the findings of this study concluded that teachers should not hesitate in promoting extrinsic motivation, it is important to note the situations in which rewards are offered. These situations should be examined carefully, with a clear focus of administering either verbal rewards or tangible rewards offered contingent on students’ performance or effort.

There is a common agreement amongst the literature that intrinsically motivated behaviour is better than extrinsically motivated behaviour. However, the literature also revealed that intrinsic motivation sometimes needs extrinsic motivation in order to motivation initial interest in the task and affects future motivation levels (Brophy, 1987; Cameron & Pierce, 1994, 1996; Donatelle & Davis, 1996; Ericsson, Krampe & Tesch-Roemer, 1993; Ryan, Mims & Koestner, 1983). As aforementioned, the results indicated that extrinsic motivation does not necessarily undermine intrinsic motivation and that both intrinsic and extrinsic motivational orientations appear to lead to high academic achievement. It could be concluded that extrinsic motivation used to initialize interest would therefore not necessarily have a detrimental effect upon students’ existing intrinsic motivation levels or subsequently their academic achievement.

Although the study’s results allows teachers confidence in not abandoning the use of extrinsic motivation in the classroom, some researchers argue against practices that promote competitions. Competitions encourage students to become preoccupied with ability levels rather than effort applied (Hirsh, 1988). As seen in both the pilot study and the results of the main study in relation to motivation and the role played by competition, the majority of students disagreed with items on the motivational scaled instrument that were extrinsic statements about outperforming or competitively beating other students associated with academic achievement levels.

Overall, the literature has shown that intrinsic motivation is beneficial to academic success. This study additionally brings to light the role of extrinsic motivation in high academic achievement levels. Teachers, through the findings of this research study, should feel free to effectively implement extrinsic motivation to existing teaching
models, carefully monitoring how these external rewards systems are to be utilized. Warning should be given however, of the promotion of extrinsic motivation in the form of competition. As cited in the literature as a practice that could harm student achievement levels, students themselves appeared to condone the use of a teaching practice that rewards them for feeling good about outperforming or competitively beating fellow peers.

5.5.2. Motivation and Gender

A major theme through the literature in regards to gender differences in motivational orientation was the idea that self-concept affects students' achievement and performance outcomes (Atkinson, 1964; Deci & Ryan, 1985; Harter, 1992; Harter & Jackson, 1992; Weiner, 1972, 1980). Males and females differ greatly in how they perceive themselves as achievers, and this in turn creates different patterns in their motivational orientation. Atkinson's (1964) Achievement motivation theory research discovered that 'hope for success' predominated among males, whereas 'fear of failure' predominates among females. Weiner (1972, 1980) concurred with these findings. Countless literature delineates that males tend to place more of an emphasis on external factors, such as luck, when attributing factors for their academic success (Lightbody, Siann & Walsh, 1995; Lightbody & Siann, 1996; Taylor, Newman, Mangis, Swiander, Garibaldi, Imael, Talmor, Tritak & Gittes, 1993; Wigfield, 1988), while in contrast, females placed a greater emphasis on the internal factors like the amount of effort they applied (Gang & Guiyang, 2000).

Conclusions drawn from the results of this study were that females have significantly higher levels of intrinsic motivation than males. These findings agreed with the literature showing that females more than males tend to place an emphasis of their academic success towards internal factors. In contrast to the literature, however, results revealed that males did not have higher levels of extrinsic motivations than females. These conclusions indicated that there is a need in the educational setting to assist males in becoming more aware of their intrinsic motivation and to have them internalize their motivations to learn. To achieve this, pedagogical teaching models that promote intrinsic motivation through self-determination and contextualization of the learning should be implemented.

124
5.5.3. Young Children and Motivation

When students enter formal schooling setting, they appear to inherently possess an innate ability of being highly motivated. White (1959, 1960) explains this natural occurrence in young children as a 'mastery motive'. These young children are naturally motivated in order to make sense of the world around them. Students hence enter school with this strong 'mastery motive'. Some studies have shown that once extrinsic rewards have been administered in educational settings, initial intrinsic motivation depletes (Deci & Ryan, 1985; Gottfried, 1985). These researchers believe that the environmental and social conditions of school turn students' naturally intrinsic motivation to an orientation that is extrinsically motivated.

Extrinsic motivation has often been cited as the downfall to students' intrinsic motivation levels and as the influential factor causing decreases in academic achievement. Although the study found that initially high intrinsic motivation levels of students in the lower primary school context depleted as they progressed through to the upper year levels, the study additionally revealed that extrinsic motivations levels likewise decreased as students moved though their formal schooling years. Therefore, extrinsic motivation could not be blamed for decreases in academic achievement levels. The results and findings of this research study demonstrated the importance not only of intrinsic motivation in achieving academic success, but also that of extrinsic motivation. Deduced from these results was the valuable importance of high motivation levels in order to obtain high academic achievement.

It is believed by many researchers that the reason behind young students' high levels of motivation and achievement is that they naturally possess an unrealistic optimism towards their motivations and competence levels (Dweck, 1989; Flink, Boggiano, Main, Barrett & Katz, 1992; Harter, 1981, 1982; Paris & Byrnes, 1989; Stipek, 1984, 1992). High self-competence could be the answer behind the high motivation levels of lower primary aged students. This study found that younger students have higher levels of motivation than upper primary aged students. By raising students' beliefs in themselves and their self-competence levels, motivation towards their learning could benefit effecting also their academic achievement.
5.5.4. Developmental Change and Motivation

Investigators within the educational settings have found that intrinsic motivation in schools steadily decrease from at least the third grade through to high school (Anderman & Maehr, 1994; Harter, 1980, 1981; Henderlong & Lepper, 1997; Lepper, Drake & O'Donnell-Johnson, 1997; Lepper, Sethi, Dialdin & Drake, 1997; Sansone & Morgan, 1992). Answers produced from this study concurred with these past findings. Intrinsic motivation levels did steadily decrease from at least the third year level through to year seven, causing concern considering the relationship that has been discovered between motivational levels and academic achievement levels. A predicted possible outcome of declining motivation could be a decline in the academic achievement of students.

Lepper & Henderlong's (2000) findings revealed that higher levels of intrinsic motivation were associated with higher grades while high extrinsic motivation were associated with lower classroom grades. Generally, most researchers believe that as there is a general decline in intrinsic motivation and increase in extrinsic motivation exists. This was also the original hypothesis of the researcher based on previous motivational literature. Rewards and extrinsic motivation are often associated as influencing poorer performance in students' academic achievement (Jordon, 1986; Kohn, 1993; Weiner & Mander, 1978). The inference from this study however, is that rewards may not directly induce poorer student performance levels. The link between the high academic achievers of this research study and their high extrinsic motivation levels draws the conclusion that extrinsic motivation does not produce lower achievement levels in students. It appears that a lack of motivation, in general, is the crucial element to decreased achievement levels.

Contradictory to the proposed hypothesis of this research study that extrinsic motivation would therefore increase as students progressed through the years levels; it produced findings that opposed this. It was discovered that extrinsic motivations also steadily decreased from at least the third year level through to year seven. Some researchers have attributed this decline in motivation levels to a decline in students' self-competence levels (Eccles, Midgley & Alder, 1984; Simmons, Blyth, Van Cleave & Bush, 1979). It is believed that through promoting self-competence, students' motivation would benefit and inherently their academic achievement.

126
(Bandura, 1986, 1993; Deci & Ryan, 1992; Gottfried, 1990; Harter, 1990, 1992; Marsh & Craven, 1991; McCombs, 1988; Ryan, Connell & Grolnick, 1992). As mentioned previously, the younger students had these high levels of motivation. Therefore, it could be presumed that these high motivational levels exist because they possessed high levels of self-competence. Future studies would benefit from examining students' self-competence levels and their beliefs of their academic abilities against their motivational orientation.

5.5.5. Teaching Practices

Results from this study have shown the importance of motivation in effecting academic achievement levels. As motivation is vital for academic success, a goal for educators is to develop and use teaching practices and procedures that promote students to be more motivated towards their learning and ultimately academic achievement. Previous research has shown that teaching practices and pedagogical models that teachers follow may elevate the motivational decline that exists within current educational settings.

Four main pedagogical teaching models of: (1) self-determination; (2) contextualization; (3) learning and performance goals; and (4) the use of external rewards systems, have emerged from the literature as being important strategies to assist in increasing students motivations levels and subsequently academic achievement. Although this research study did not directly look at these particular teaching models and their effects on student motivation, the results of this study have concluded the importance of promoting motivation in students in order to increase their academic achievement levels. Aspects of the research have discussed the possible connection between self-competence levels and motivational levels of students. Discussion has also allowed teachers to feel free in incorporating extrinsic motivation into the classroom, but warned of the potential dangers of competitive performance goals rather than focusing on motivations learning goals. Student themselves were not fond of the idea of being compared to others and having to prove their ability by outperforming peers. The findings furthermore produced discussion on gender differences regarding motivational orientations. The end result explored a need to contextualize learning for male students and promotion of self-determination to see their intrinsic motivation levels increase.
Motivation is beneficial to academic success and one way of promoting the importance of motivation for learning and achievement is for teachers to assist students in developing their motivational levels. This could be achieved by implementing pedagogical teaching practices that elevate the motivational decline that currently exists as students progress through formal primary school. Future studies that examine the link between teaching practices currently in use and ways of improving upon them to further promote students in being more motivated to learn, could only possibly lead to the eventual finding of factors that can ultimately induce higher academic achievement levels by all students.

5.5.6. Implications for the profession

The study is significant for the following reasons. Since there was a noticed decline in motivation as students progressed from Year 3 to Year 7, there is a need to address the importance of motivation in academic achievement performance levels. By promoting students to be more motivated, in intrinsic and extrinsic forms of motivation, students are more likely to achieve higher academic results.

To support successful students in the academic areas of literacy and numeracy, development of appropriate teaching practices and procedures to promote motivation in students should be employed. These techniques should include such practices that promote self-determination; contextualisation; learning goals over performance goals; and the use of externals reward systems. To understand the benefits of such techniques, the advantages and suggested delivery procedures must be considered for each individual pedagogical teaching method.

Self-determination has been sighted by many researchers as an important factor towards students' motivation (Deci & Ryan, 1985; Eccles & Midgley, 1989). Researchers noted that there are many educational benefits of providing students with choices, primarily shown as an increase in student learning and intrinsic motivations (Cordova & Lepper, 1996; Iyengar & Lepper, 1999; Langer, 1989; Lepper & Henderlong, 2000; Nuttin, 1973; Perimutter & Monty, 1977; Zuckerman, Porac, Lathin, Smith & Deci, 1978). By giving students, an increased sense of autonomy, as well as, responsibility and control in making their own choices, they attained greater academic achievement, more adaptive risk taking skills and had few absences

Contextualisation requires teachers to ensure that the social environment of the educational setting of students fits with their psychological needs. Research has found that if an environment does not fit well, consequently negative motivational outcomes will occur (Eccles & Midgley, 1989; Eccles, Midgley & Alder, 1984; Hunt, 1975; Lewin, 1935). Ways to ensure contextualisation of learning to assist students in becoming life long learners include creating real world context curriculum and assessment (Condry & Chambers, 1978; Cordova & Lepper, 1996); and building on prior knowledge and interests by 'project based' or 'integrated' curricula (Bruner, 1962, 1996; Cordova & Lepper, 1996; Edwards, Gandini & Foreman, 1993; Jacoc & Eccles, 2000; Katz & Chard, 1989; Lepper & Henderlong, 2000).

Promoting learning goals rather than performance goals yield a positive consequence on motivation and inevitably academic achievement (Ames, 1992; Dweck, 1986; Elliott & Dweck, 1988; Meece, Blumenfeld & Hoyle, 1988; Molden & Dweck, 2000; Limenbrink & Pintrich, 2000). Midgley, Anderman & Hicks (1995) found that teachers in higher year levels placed greater emphasis on performance goals compared to the early years teachers. This is an area that need to be addressed and rectified if greater motivational levels and hence student academic achievement is to be obtained. Teachers are encouraged to have teaching pedagogies that promote students to have learning goals. Some of these practices to increase motivation include cross-age-tutoring programs (Foster-Harrison, 997; Goodlad & Hirst, 1990); and co-operative group structures (Johnson, Skon & Johnson, 1980; Qin, Johnson & Johnson, 1995; Slavin, 1996).

The use of external reward systems, such as token economies and contingency programs that are related to learning goals rather than behaviour management strategies, have seen students experience a sense of competency in their schoolwork (Bandure & Schunk, 1981) while also providing them with positive information on their competence levels (Deci, 1975; Deci & Ryan, 1980, 1985; Lepper, 1981). It is suggested that teachers move beyond the idea that, intrinsic and extrinsic motivations act in conflict with each other and that benefits can occur from simultaneously introducing both sources of motivation into educational settings (Heman & Dweck,
1992; Jackson, 1968; Henderlong & Lepper, 1997, 2000; Lepper, 1983; Lepper, Sethi, Dialdin & Drake, 1997; Nisan, 1992). Teachers just need to focus on the ways in which, rewards are used, and the messages that the reward might convey (Lepper & Henderlong, 2000).

As can be seen, the benefits of these teaching practices in promoting motivations, and hence better academic achievement levels, have been sighted in countless research studies.

Second, policy makers need to reinforce the connection between motivation and high academic achievement results. National and state agendas, when writing about improving literacy and numeracy practices, should impose on its readers that motivation is a vital part in achieving their policy goals. By suggesting practices and procedures that utilise the aforementioned teaching strategies to promote motivations in students, higher academic achievement levels could be obtained.

5.5.7. Areas for future research

This section offers some suggestions as to how the research of this thesis may be extended. Although this research study revealed that motivation has an important role to play in students obtaining high academic achievement levels, there are a number of areas within the study that could be either improved or extended.

The research identified and explored the importance of motivation on academic achievement levels, as well as discovering a decline in student motivation as they progressed through primary school. A number of issues were also raised that warranted further investigation. Briefly, some of these are discussed below.

First, the study discovered the need of a more specific instrument to measure motivation in the early years of primary school. Many issues need to be addressed with the current modified motivational scale used in this study. A possible adjustment to the scale relates to Likert's scale. Instead of the five-point scale, the scale could be widened to seven (or even a ten) point scale. An introduction of the scaling system should be given to students, especially the younger ones. By giving students an opportunity to practice answering with such scaling, responses containing more accurate ranges could be obtained. A possible way of introducing such a scale could be by giving students moral dilemmas to answer on scales. Another way of
improving the motivational instrument would be to create a wider spectrum of motivational type questions. One possibility could include making the questions more specific to the context of the early years. An example of this could be not referencing the extrinsic motivation statements to future job prospects, but related more to present things in the students' lives, like grade ascertainment or progressing to the next grade. Another possibility of creating a wider variety of motivational statements would be to have subject specific questions. By exploring motivational types in different subject areas, influences of motivation on each subject area could be investigated.

Further investigation into student motivation could be obtained through observations on participation levels in the different subject areas. Relationships between motivations towards subject areas, student participation in those areas and their academic achievement levels would further clarify motivational trends of young student learners. With this information, educators could rectify problem areas and develop appropriate teaching techniques to facilitate student learning and development.

Second, to accurately examine effects of motivation on academic achievement levels, a longitudinal approach should be used. By re-creating the study over a five year period to examine motivational changes of the same subjects over the time, trends of their academic achievements could be established. To further understand these effects the study could be extended to include examination of Year 5 students. By examining students at two-year intervals, understanding into motivation change could be achieved.

Third, examination of the complex web of social and personal relationships that influence upon student motivation levels could furthermore be explored. These affect variables cover a wide spectrum of factors. Factors such as parental influence and teacher perceptions are one area that could add to information about how students develop certain motivations and its inevitable influence upon their academic achievement levels. Other factors of socio-economic status, family background or ethnicity could reveal trends of the populations relating to motivational orientations of students. Motivation is a very complex and multifaceted phenomenon. By examining
more factors that influence upon students motivations, better understanding about student learning can occur.

Finally, a study on student motivation could benefit from research into the teaching practices employed by educators to motivate students. Analysis of the teaching strategies used by educators and what practices they use to promote intrinsic or extrinsic motivations in students would illustrate where improvements into the education of students occur. If teachers are not applying techniques that promote self-determination, contextualisation, learning goals over performance goals or external reward systems, then changes in the structure of our educational systems need to occur.

5.6. **CLOSING COMMENT**

In this reward powered society where life entails completing tasks and assignments for some recognition and acknowledgement, is it no wonder that there is a decline in both intrinsic and extrinsic motivations behind completing tasks. Modelled by teachers and parents alike, students see that one must complete tasks, even if not enjoyed, in order to maintain an existence within society. In preparing students to be life long learners and possess the ability to function in society, it is stated that literacy and numeracy skills are essential (MCEETYA, 1997; Position Paper: Literacy, 2001; Position Paper: Numeracy, 2001; The Literacy and Numeracy Strategy, 1994-98). However, motivation is also an important factor in students' later functionality in society. Motivations of students do affect student achievement levels. However, as revealed in this study, intrinsic and extrinsic motivations have a positive influence upon the ascertainment of high academic achievement results, but alas decline as students progress through their formal schooling. Educators need to focus their energies in increasing academic achievement levels by simultaneously introducing both sources of motivation into educational settings (Heman & Dweck, 1992; Jackson, 1968; Henderlong & Lepper, 1997, 2000; Lepper, 1983; Lepper, Sethi, Dialdin & Drake, 1997; Nisan, 1992). If students are taught through the teaching strategies of self-determination, contextualisation, learning goals over performance goals and external rewards systems that promote motivation, higher academic results will follow.