Financial Decision Making
in
Four
New Zealand Secondary Schools

Neil Watson

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ABSTRACT

This study investigates financial decision making in four mid to low decile Auckland secondary schools. Before the advent of education administration reforms in the late 1980’s state schools in New Zealand had little exposure to financial management practices. Currently there is little research examining financial decision making in the New Zealand secondary school setting.

This study adopted a qualitative approach in the form of a study of the four schools. Participants were involved through semi-structured interviews of each of the principals and a questionnaire for the middle managers. Four research questions guided this study: What kind of financial decisions do educational leaders make in relation to resourcing teaching and learning? What strategies are used by educational leaders when making financial decisions? How are financial decisions evaluated by educational leaders? What are the issues and challenges facing educational leaders when making financial decisions?

The findings revealed four key themes; firstly the devolvement of financial decision making to the principal and middle managers; secondly the impact of financial decision making on the role of the educational leader; thirdly the constraints around financial decision making and finally the limitations in the evaluation of financial decision making. The implication is that financial decision making is a significant and crucial aspect of the educational leader’s role. A further implication is the importance of establishing robust practises to evaluate financial decisions to ensure that resources allocated are benefiting student achievement. Recommendations that emerge from this study are based around increasing the amount of discretion available to better cater for diversity, in particular this needs to occur at the middle management level. The evaluation of financial decisions should be based on both the capacity of the school and also importantly the impact on student achievement. Financial decision making is an important aspect of the educational leaders’ role and thorough training is needed for both principals and middle managers.
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CHAPTER ONE  INTRODUCTION

This chapter provides an overview of the thesis. I provide a rationale for the study and outline the current funding structure for New Zealand schools. I then provide an overview of the thesis structure.

Rationale

The role of principal in a New Zealand Secondary School is one that encompasses educational leadership as well being the chief executive officer of multi-million dollar organisations. Southworth (2004) sees leader and manager as a duality- there is not a choice as the Principal must be both organisational manager and the educational leader. In the relatively short time I have been principal there have been meetings where the perceived lack of funding available has been a key bone of contention amongst those gathered, the discussion focuses on how to acquire more from either governmental or community sources. However, in these discussions there has not been expressed ways to increase the effectiveness of the current pool of money to improve student achievement.

In my own experience as principal I am aware that there is only a limited amount of discretionary money available for the school once fixed costs are factored into the budget. In their Best Evidence Synthesis on ‘School Leadership and Student Outcomes’ Robinson, Hohepa and Lloyd identify strategic resourcing as one of five dimensions that make a difference to student outcomes (Robinson, Hohepa, & Lloyd, 2009). Strategic resourcing is defined in this study as “securing and allocating resources that are aligned to pedagogical purposes.”(p98). However there is clearly a lack of New Zealand research on how educational leaders make financial decisions in the everyday management of schools (Robinson et al., 2009). This research will help close the gap in the literature with regard to how best use operational funding to improve student achievement in New Zealand.
Research Questions

The aim of this research will be to investigate how educational leaders make and evaluate financial decisions related to teaching and learning in four secondary schools in the Auckland region. The study was guided by the following research questions:

1. What kind of financial decisions do educational leaders make in relation to resourcing teaching and learning?
2. What strategies are used by educational leaders when making financial decisions?
3. How are financial decisions evaluated by educational leaders?
4. What are the issues and challenges facing educational leaders when making and evaluating financial decisions?

School Governance, Management and Funding in New Zealand

In this section information will be provided on the self-governing model of secondary schools in New Zealand and how they are funded. This will provide the necessary background for the rest of this study.

Each state school in New Zealand has a Board of Trustees consisting of a majority of parent representatives with control over budget, staffing and school policy. State schools are required to have a Charter which outlines the vision and direction of the school. Essentially each school is a self-managing government organisation (Parliament of New Zealand, 1988). The principal is the chief executive of their schools with a particular emphasis on the leadership of teaching and learning, and this distinguishes the principal's role from that of the CEO of any other profession. Other than the principal the middle managers in schools provide a managerial link between senior management and classroom teachers. In New Zealand secondary schools they function as Faculty leaders, Heads of Departments, Teachers in Charge of Subjects.
In order to understand the kind of financial decisions made by educational leaders it is important to understand how schools are funded. In 2011 New Zealand schools had a total income of $6.35 billion dollars. Government grants made up 88% of that income, consisting of three main components: teachers’ salaries ($3.4 billion), operations funding ($1.2 billion), and property ($0.65 billion). This funding was supplemented through locally raised funds which include: activity fees, donations, fundraising, and income from foreign fee paying students (Kerr, 2012).

Over half of government funding for schools in New Zealand is dedicated to teacher staffing. Each school has a staffing entitlement which is calculated based on year level rolls (Appendix 1.1) additional staffing is available to assist newly qualified teachers and students with very high special needs. This staffing entitlement is paid directly to the teachers by the Ministry of Education. Additional teachers may also be employed through Board funds (Ministry of Education, 2012).

Operational funding is provided to the school from the government for the running of the school and the implementation of the school’s goals and objectives as expressed in the charter and is paid quarterly by way of a bulk grant (Ministry of Education, 2012). Operational funding is calculated by formula, the three key components of the funding are the base funding, per student funding (Appendix 1.2) and the targeted funding for educational achievement (Appendix 1.3).

Each school in New Zealand has a decile rating. The deciles are determined by census data and are calculated based on a combination of household incomes, occupation, household crowding, educational qualifications and income support from the government. Decile one schools are the ten percent of schools with the highest percentage of students from low socio-economic communities. Decile ratings are used to determine the allocation of funding, most notable the Targeted Funding for Educational Achievement which is additional to the per pupil funding (Ministry of Education, 2011).

The Ministry of Education also funds schools for their property modernisation, this is done through a series of five year property agreements and the funding amount is calculated through a formula based on the roll driven entitlement for property.
Funds under the control of Board of Trustees in New Zealand Schools are used for two main categories: Overhead Costs and Teaching and Learning Costs. The Education Review Office (2007) found that primary schools on average spent 85% of their operations grant on overheads and secondary schools spent 90%. On a per student basis in low decile secondary schools the average amount spent on overheads was $1350 per student, in medium decile $1025 and high decile $1375. It is interesting to note that although the average amount of overheads on a per student basis is very similar the range of overhead spending was very large; for instance for low decile schools there was a range of $2075, medium decile $750 and high decile $1100 (Education Review Office, 2007). Spending on teaching and learning was also calculated on a per student basis by the Education Review Office. In secondary schools nearly 40% of the teaching and learning budget went on classroom materials, the other large area of expenditure was information communication technology (ICT), additional teachers and support staff. Interestingly higher decile schools spent more on additional staff, while lower decile schools spent higher proportion of funds on ICT. On a per student basis the average spend per student on teaching and learning for low decile secondary schools was $1000 and $825 for both mid to high decile secondary schools.

Low decile schools are able to spend more on teaching and learning because of targeted funding for education achievement they received as part of their operating grant (Education Review Office, 2007). According to the Education Review Office (2007), significantly only 40% of schools had linked teaching and learning to their financial planning, interestingly there were proportionally more low decile schools with ineffective linkages between teaching and learning and their financial planning than medium to high decile schools. Therefore the higher level of expenditure per student in low decile schools for teaching and learning was not being reviewed in terms of effectiveness for student outcomes and spending was not being based on student achievement data (Education Review Office, 2007).

In New Zealand the purpose of Targeted Funding for Educational Achievement, like Title I schools in the United States, is to provide additional funds to schools which draw their students from lower socio-economic groups, as measured by decile rating, in order to allow these schools to meet the diverse needs of their students. The
The amount of funding is graduated based on decile rating with decile 1A schools receiving an extra $728 per student, while decile 10 schools receive no extra funding. Schools in the low decile categorisation in New Zealand receive between $177 to $728 extra per student, medium decile schools receive between $57 and $146 per student and high decile schools between $0 and $37 (Education Review Office, 2007). The majority of the additional funding received by low decile schools is spent on learning resources (Harrison, 2004). When taken into account government grants, locally raised funds and other sources of income it is clear that total operational funding declines as school’s decile ranking increases.

Significantly over two thirds of government funding to New Zealand secondary schools is composed of teachers’ salaries. Consequently any increase in teachers’ salaries has a large impact on overall funding for schools (Harrison, 2004). State secondary schools in New Zealand each year are allocated a number of teaching staffing units (each unit represents one full time teacher equivalent) based on their roll, commensurate with this are extra payments for managerial responsibilities and time allowances for new teachers, itinerant music teachers and specialist classroom teachers. While staffing levels are set by the Ministry of Education, schools can employ extra teaching staff, paid for out of their operating funds (Ministry of Education, 2011). Although schools have the flexibility to use this teacher staffing as they see appropriate the funding is controlled by the Ministry of Education and pay rates are determined through the secondary teachers’ collective agreement (Education, 2011).

State schools in New Zealand are self-governing and in 2011 had a total income of $6.5 billion dollars, yet despite this there is little research available on financial decision making in secondary schools. The majority of funding comes from the government and this is based on predominantly a per student model with targeted funding available to assist the lowest socio economic groups. The educational leaders of New Zealand schools, both principals and middle managers, are responsible for financial decisions for they must decide in the self-governing model how the resources are to be allocated to best meet the needs of the students in their care.
Organisation of the Thesis

The thesis contains five chapters including the introduction. Chapter One provides the background for the thesis. The researcher’s personal perspective is discussed and an explanation of the rationale for the study follows. The research aim and questions are introduced followed by an explanation of the governance and management structure of state schools in New Zealand. In the chapter is an exploration of how schools are funded in New Zealand. Chapter Two contains an examination of related literature and explores research findings associated with financial decision making in schools both in New Zealand and other countries. In this chapter the impact of education administration reform on the type of financial decisions made by educational leaders is examined. The chapter also focuses on the strategies used when making decisions and goes on to examine how decisions are evaluated. It concludes with an examination of the issues and challenges faced in financial decision making in schools. Chapter Three has an overview of the research methods employed. Included is a description of the methods used to collect data from the principals and middle managers of the four schools in the study. Included in this chapter is how the data was analysed and finally the chapter considers validity and trustworthiness, and addresses ethical issues. Chapter Four is where the findings gathered from both the semi-structured interviews principals and of the and the questionnaire completed by the middle managers are presented. The chapter is organised into five sections which are linked with the research questions. Four key conceptual areas emerge from the data: the devolution of financial decision making, the impact on the role of educational leaders, constraints around financial decision making and limitations of the evaluation of financial decision making. Finally in Chapter Five the conceptual areas that emerge from the findings are discussed and how this relates to other relevant research in these areas. The implications for practice and policy as well as proposing areas for further research are outlined. Chapter Five also provides the conclusions and recommendations that emerge from the study.
CHAPTER TWO LITERATURE REVIEW

The first section of the literature review focuses on the New Zealand context of financial management in self-managed schools. It examines the nature and impact of education administration reform on the type of financial decisions that are made by educational leaders. The second section examines literature from New Zealand, the United Kingdom and the United States of America and looks at the strategies used by educational leaders in making decisions, furthermore as there is little literature around financial decision making in schools, the review extends to an examination of generic decision making. Following this section there is an examination of the evaluation of financial decision making by educational leaders and finally a discussion on the issues and challenges faced by educational leaders when making financial decisions.

Impact of Education Reforms

The New Zealand education administration reforms of the late 1980s were based on the idea that decision making is rendered more effective when decisions are implemented by people as close as possible to those who are affected by them (Duignan & MacPherson, 1990; Gamage, Sipple, & Partridge, 1996). The original intention of the reforms outlined in the Picot report (Parliament of New Zealand, 1988) was that each school would create a financial decision making process that best suited their needs. Tooley and Guthrie (2007) observe that the reforms of the late 1980s placed the responsibility of budgeting and reporting onto the schools and resourcing theoretically remained the responsibility of the government. This is supported by Newcombe, McCormick and Sharp (1997) who state that a key aspect of school-based management reform has been the delegation of financial management to the school. A central aspect of the reforms in New Zealand was that funding would go directly to the school and these schools would have the ability to establish their own priorities based upon a Ministry of Education approved charter. According to Tooley and Guthrie (2007) the 1989 reforms were about allowing Board
of Trustees and Principals to make decisions regarding the targeting of certain areas and the allocation of financial resources. It is important to note that before the 1989 Education Act and the Public Finance Act 1989 state schools in New Zealand had little exposure to financial management practices. It was intended that following good accounting practices would lead to schools making better decisions regarding the allocation of resources (Tooley & Guthrie, 2007).

**Strategic Management and Resourcing in Schools.**

The following section will examine the literature around strategic management and resourcing schools, the literature available is predominantly sourced from the United States, Britain and Australia. Ivancevich and Matteson (1990) stated that management is decision making, and there is no doubt that despite little being written about financial decision making in schools (Newcombe, McCormick, & Sharp, 1997; Wohlsetter & Buffet, 1992) the management of financial expenditure is a very important part of the effective management of a school. This is despite there being no conclusive statistical evidence which proves that when student characteristics are controlled higher spending per student leads to improved student achievement (Hanushek, 1998; Hedges, Laine & Greenwald, 1994; Miles & Frank 2008). While there might be a minimum level of funding per student below which effective schooling is not possible, what is most important is how the resources are spent and used (Coleman & Briggs, 2002).

In their book *The Strategic School* Miles and Frank (2008) state that most schools and districts are limited in their preparation of budgets for the following year as they can make only minor adjustments, trying to at least preserve the current situation and hopefully purchase some new teaching materials. Miles and Frank (2008) go on to describe a 'strategic school' as one that allocates all its resources to support a school wide, instructionally based vision. This view is supported by Smith and Andrew (1989) who in their paper highlight the importance of supporting teachers by the provision of the required resources, which includes both time and physical materials. Effective educational leaders acquire resources and decide how to use
them strategically, meaning that the use of resources are aligned with the schools goals (Bryk, Sebring, Kerbow, Rollow, & Easton, 1998).

The concept of strategy was clearly defined by Johnson and Scholes (2002) who state, “Strategy is the direction and scope of an organisation over the long term, which achieves advantage for the organisation through its configuration of resources within a changing environment and to fulfil stakeholder expectations.” (p.10) Three levels of strategy are identified and can be seen to correlate to the school environment. The concept of Corporate Level or whole school level strategy is concerned with the overall purpose and scope of the organisation and how the worth of the organisation can be enhanced. Business Unit Strategy can be seen as similar to Faculty level and is concerned with how the sub groups of the organisation compete in their particular areas. Finally the third level of strategy is concerned with what happens, using an educational example, in the classroom and how it aligns with the overall direction and scope of the school. Turning strategy into action is the key aspect of strategic management and New Zealand’s National Administration Guidelines for education require all schools to have strategic plans (Ministry of Education, 1999). This requirement was further clarified by the Education Review Office the following year; that stated that strategic planning involved identifying environmental factors affecting the school and using these to set goals and objectives. Therefore strategic plans should form the basis for operational and day to day planning of what happens in the classroom (Education Review Office, 2000).

Miles and Frank (2008) identify three key common resource strategies for high performing schools:

1 Investing in teacher quality

2 Focus time on core academics

3 Create individual attention.

In particular, high performing schools look at their students and staff first to identify their needs and then create a resource strategy that addresses those specific needs
In other words the focus is on identifying the needs of students and also teachers and then working out how best to use the available resources to improve students' academic achievement. This links into the work of Bell (2002) which resonates with the work of Mintzberg (1989), Bell (2002) identifies that when strategy is formulated by the senior management, the implementation is reliant on the classroom. It is at the classroom level, according to Bell, where it is vital that all staff share a common vision and values (Bell, 2002). According to Bell it is vital that if a school strategy is to have an impact, it must have an impact in the classroom (Bell, 2002).

However Zohar (1997) believes that strategic planning is not suited for the management of well trained teaching professionals who are concerned about the welfare and success of their students as creativity and imaginative thinking will be restrained. The implication is that traditional strategic planning will fail to utilise the skills, talents and experience of all the staff in the school (Zohar, 1997). According to Miles and Frank (2008), educational leaders succeed because they create a vision of how they will develop individual and whole staff capacity and then act on it. When financial decision making is aligned to the vision of the school and the strategic plan is also aligned to the educational leader’s vision then the issues identified by Zohar will be reduced.

Leadership related to setting the direction of the school involves developing a vision for improvement, articulating expectations for staff and students, and developing collective goals for the organization (Leithwood & Jantzi, 2005; Leithwood & Riehl, 2003). According to Leithwood and Jantzi (2005), when educational leaders improve their school, they create a positive school culture with high levels of trust; by strategically acquiring resources; and altering the organizational structures to facilitate these changes. This is supported by the study of ten elementary schools in Chicago where the schools which moved quickest off probation were more successful in providing teachers with the resources they need (Finnigan & Stewart, 2009). Conversely, in schools that did not improve, teachers repeatedly reported the failure of educational leaders to meet their need for additional resources. Again in schools which did not improve, basic maintenance expenditure was not undertaken and the environments were subsequently depressing. The reallocation of resources
which was closely aligned to the educational leader’s vision of school improvement led to significant improvement in student outcomes (Finnegan and Stewart, 2009). Odden and Archibald (2001) in a United States based study looked at spending patterns in high performing schools and typical schools, examining three categories of expenditure; instruction, student support and administration. Not surprisingly highly effective schools spent a greater percentage of their resources on instruction than the other two broad categories, suggesting quite clearly that the way schools organise resources does matter (Wellington, 2000). In a study of ten Chicago schools Finnegan and Stewart (2009) identified that one of the financial decisions made by successful educational leaders was to eliminate anything that did not seem directly related to the vision of school improvement. Furthermore data were examined from different programmes to evaluate their effectiveness and where need be reprioritise spending in other areas where there were greater gains in student achievement (Finnigan & Stewart, 2009). While Odden and Archibald (2001) looked at high performing schools and a comparison with typical schools to draw their conclusions, according to Miles and Frank (2008) most schools do not constantly focus on improving teacher quality, instead focussing on structural change, for instance extra classes, as these are easier to measure and more visible. However, the research is overwhelming in concluding that the quality of teaching is vital for student success and therefore resourcing should focus on improving the teaching effectiveness of staff (Ding & Sherman, 2006; Heck, 2007; Ingvarson & Rowe, 2008).

One of the financial decisions educational leaders have to make is how best to use funding to cater for students with diverse learning needs. In the United States there has been a significant increase in funding for special programmes for groups of students. For instance in 1967 80% of school spending supported regular programmes, twenty years later just over 50% of spending went on regular programmes (Coleman & Briggs, 2002). The implication made by Miles and Frank (2008) is that the practice of providing isolated, specialised programmes drains money from other students and also encourages teachers to divest responsibility for the learning diversity present in their classes.

The importance of strategic resourcing is identified by Robinson, Hohepa and Lloyd (2009) as one of five dimensions of educational leadership impact. Interestingly from
the viewpoint of this investigation, strategic resourcing was viewed to have a small effect on student learning outcomes. The use of the word ‘strategically’ indicates that the resources are aligned to teaching and learning. In particular the allocation of teaching staff is deemed as most important in strategic resourcing (Robinson et al, 2009). However there is “a conspicuous shortage of New Zealand research on how school leaders identify and obtain resources.”(p115). Robinson et al (2009) state that there needs to be more thinking and research around how budgeting and staff allocation link to goal setting.

**Decision Making**

As there is little academic literature specifically on financial decision making in the education setting an examination of decision making literature in general has been considered pertinent because the general principles apply to financial decisions. In order to explore what strategies are used by educational leaders when making financial decisions this section of the literature review begins with looking at models of decision making, including budget models. This is followed by an examination of strategy and data driven decision making and how that is linked to financial decision making by educational leaders.

The classical model of decision making introduces the concept that all possible alternatives are generated and these are evaluated in terms of the goals and objectives. However, this assumes that decision makers have access to all possible alternatives which is seldom the case. This classical model is an ideal. Simon (1947) introduced the concept of satisficing, that is finding a satisfactory solution rather than the best one. Hoy and Miskel (2008) point out that values and moral choice play a critical part in systematic decision making. The decisions we make as educational leaders are often based on our inherent values. Therefore, when making financial decisions one should also look at whether these financial decisions reflect the underlying values of the school. In brief, decision makers need relevant facts that will allow the ability to map out how big the problem is and how it could be solved by the allocation or non-allocation of resources.
Hoy and Miskel's (2008) decision making process is an action cycle of five parts. Firstly, the need to recognise and define the problem or issue, which is identifying the immediate problem and the underlying issue. This is followed by analysing the difficulties in the existing situation. So, therefore, we can look at two types of decisions: generic decisions which are based on established principles and policies (Drucker, 1966) as opposed to unique decisions. Unique decisions are more creative decisions going beyond established procedures for a solution. In general the criteria to evaluate the decision should be consistent with the school mission. Hoy and Miskel (2008) refer to a 'criteria of adequacy' or what scientists refer to as 'boundary conditions' which are the limits the decision maker must meet for the decision to be judged an adequate one. The next step is to develop a plan of action, which in the budget process this is often the allocation of money. Thomson (1967) talks about solving problems before they occur, termed ‘opportunistic surveillance.’ Salas and Klein (2001) state that decision makers with more experience often limit their search for alternatives without undermining decision quality.

The incremental model of decision making was first described by Braybook and Lindblom (as cited in Hoy & Miskel, 2008), this model considers only alternatives which are very similar to the current situation. Furthermore this incremental model requires the analysis of differences between the current state and the proposed outcomes, ignoring all outcomes that are outside the decision makers narrow range of interest. Lindblom (1959) suggests that this simplification of analysis through only looking at slight differences still gives educational leaders a reasonable set of alternatives and consequently saves time and energy. The narrow range of possible outcomes because of this reduces congestion in what is happening in the educational organisation.

However, Hoy and Tarter (2004) describe the above incremental approach as conservative and aimless. Etzioni (1989) has an adaptive model, which is a mixed scanning model that involves two questions: What is the organisation mission and policy? What decisions will move the organisation towards its mission and policy? Etzioni (1989) describes this mixture of shallow and deep examination of data, generalised consideration of a broad range of facts and choices followed by a detailed examination of a focussed subset of facts and choices. Effectively it is a mix
of the administrative model with the flexibility of the incremental model. What it does, is make sure that the incremental steps are based on broad fundamental policy. Etzioni (1989) compares this method to the process followed by doctors, who examine the symptoms of a patient, initiate treatment, and if it fails try something else, whilst bearing in mind that the aim is to get the patient well. There are some key points of Etzioni’s strategy that Hoy and Tarter (2003) identified; one of them is to be tentative and proceed with caution, to make sure you are prepared to modify your course of actions if conditions change. You stagger your decisions as this allows an evaluation of the outcomes at each stage. This means not investing all your resources to implement a decision, but instead using partial resources to make sure the consequences are satisfactory and what you are aiming for. In effect the suggestion is that you hedge your bets, making competing alternative decisions of financing and resourcing and make adjustments according to results. Hoy and Miskel (2008) found that there is no best way to decide as the correct approach is one that best matches the circumstances - a contingency model. Grandori (1984) suggests that the decisions strategy should be ordered according to the capacity to deal with the complexity and conditions of increasing uncertainty. Grandori (1984) goes on to state when the organisation is in turmoil and without direction an incremental approach is probably best in terms of short run strategy. Starki (1984) and Etzione (1989) however state that a mixed scanning combines the best of the satisfying and the incremental models. Hoy and Miskel (2008) suggest a simplified contingency model: Is there sufficient information to define a satisfactory outcome? Is there time to engage in a comprehensive search? How important is the decision? So broadly the literature states that there are different ways to make the decisions based on the information you have available, the time available and the importance of the decision as well as the current state of the organisation.

Owens (2004) observed that in poorly run schools there was a temptation for educational leaders to make decisions quickly and often bureaucratically. This compares to “healthy organisations (who) characteristically find strength in opening up participation in decision making and empowering people to participate in important decisions (which is) highly motivating for them” (p. 286). Hoy and Tarter (1998) suggest that in poorly organised schools there is often non rational decision
making and these organisations are characterised by problematic preferences and fluid participation. Therefore the basic feature is that decisions are the product of independent trends or events in the organisation, a garbage can model (Tarter & Hoy, 1998). This is quite common in schools where problems or points of dissatisfaction, maybe an angry parent, result in a decision being made based on the one incident rather than an analysis of the issue and whether there is indeed an underlying problem. This garbage can model can explain why solutions are made for problems that do not exist and decisions are made without solving problems. Often in this model, problems, solutions and decisions act as independent events (Tarter & Hoy, 1998). Furthermore, in schools where there are high levels of stress it is likely that financial decision making will be poor. Janis (1985), looks at the relationship between stress and decision making. Critical decisions, for example setting the budget, mean that sometimes you have to sacrifice other important objectives and therefore you have stress and anxiety around this. The bottom line is that stress often has negative implications on decision making and leads to errors thus compounding stress levels (Janis, 1985).

When examining timetabling issues and teacher allocation it is important that the educational leader keeps the overall vision of the school in mind (Coleman & Briggs, 2002). The allocation of time, as time is money, is one way educational leaders make financial decisions. Miles and Frank (2008) found that in 42 states in the United States only 41% of time was spent on core academic subjects (core academic subjects include English, Math, Science, Social Studies and foreign language courses). Therefore a key question educational leaders need to ask is how the existing time is being used and does this best meet the needs of the students (Coleman & Briggs, 2002)?

Hoy and Miskel (2008) in their examination of educational organisations use a series of continuums to help understand how the organisation operates. They describe a continuum from a hindering school structure to a structure that enables problem solving and is supportive of teachers. Similarly, there is a continuum from mindless to mindful schools; from schools mindlessly adhering to the rules to when a school is mindful. An organisation is mindful when it focuses on failure and looks to improve,
when there is an awareness of the complexity of the organisation and when the school is focussed on teaching and learning (Hoy & Miskel, 2008). When applied to financial decision making in schools successful schools will be focussed on allocating resources to areas of greatest need to improve the teaching and learning.

School Budget

Devolved responsibility for financial decision making has been a significant feature of the local management of schools reforms in England and Wales (Caldwell, 1999). Despite these reforms offering the opportunity for financial decisions to be made close to where the actual teaching and learning is occurring, subsequent research indicated that there is a disconnect between the financial management of the school and what is perceived as the real business of the school; that is teaching and learning (Jacobs, 2000).

Newcombe and McCormick (2001) in their study of school based financial decision making in primary, secondary and special schools in New South Wales, Australia made a distinction between financial decisions which established a broad strategic framework known as first order decisions, while second order decisions are more of an operational nature. However often in the school budget scenario there is little flexibility for those making second order decisions (Newcombe & McCormick, 2001). Based on this Australian study first order financial decisions will refer to the creation of a whole school budget and the allocation of financial resources to individual cost centres. Second order financial decisions will refer to operational expenditure inside each cost centre and are primarily concerned with purchase and maintenance of equipment. The most common financial decision making approach identified by Tooley and Guthrie (2007) in their research with New Zealand schools was a ‘bottom up’ approach where middle managers submitted their budget proposals to the Principal. Three of the New Zealand schools studied set their budgets based on the expected income the schools would receive in the following year, the fourth school’s financial decision making however was based on the needs of the school, and the resulting deficit was only constrained by the perception of what was an acceptable deficit (Tooley & Guthrie, 2007).
Furthermore in the schools studied, most of the budgeting was done using an incremental approach. This means the allocation of resources was based predominantly on historical trends and whether the area was over budget or under budget for the previous year (Scott, 2005; Tooley & Guthrie, 2007). This incremental approach to budgeting means that the Principal tends to maintain the existing activities of the school rather than question what is being done (Tooley & Guthrie, 2007). While most schools approach budgeting as a mechanical exercise, it has been suggested that it can be a strategic exercise for educational leaders in which resources are allocated towards the school’s most important priorities in a manner most likely to improve student achievement. This is reflected in the experience of some New South Wales principals. In the Australian state of New South Wales, by 1990 all public schools were allocated a global budget from which the educational leaders of the school could decide how the money was to be spent. Originally there was strong opposition to this, as principals perceived that the time spent budgeting would detract from the time they could spend as instructional leaders. However, by 1992 some Principals were using their new financial decision making to benefit teaching and learning in their schools and targeting specific curriculum areas (Harrold, 1998).

Tooley and Guthrie (2007) in their study using a study approach looked at four New Zealand secondary schools and how the budget process operated in these schools. Although technically the Board of Trustees has formal responsibility for the budget and financial decision making in schools it was found that in reality it was the Principal of each of the four schools they studied who exercised control and responsibility for the budget. In one of the schools studied the chair of the Board admitted that the Board relied on the Principal to get it right (Toole & Guthrie, 2007). This lack of Board involvement may help explain why despite schools requiring to have a strategic plan outlining their intentions over the next three to five years, the study found that school’s budgets took little account of that strategic plan. Indeed the overwhelming objective was to provide for the forthcoming needs of the financial year, with little or no reserves for future expenditure requirements. In some schools, teachers are expected to be involved in budget committees and other planning committees (Newcombe et al., 1997). However, most teaching staff did not want to
be involved in the financial decision making process and would have preferred that the Principal made those types of decisions. This is backed up by the research of Bachus (1992) and Duke (1987) who found in their research that if teachers could not see a direct relationship to the classroom, then they had little interest in being involved in financial decision making. Robertson and Briggs (1993) noted that when teachers were involved in the managerial functions of the school they felt that they had less time for lesson preparation and curriculum planning. Newcombe and McCormick (2001) offer a variation in that while teachers may not have enough time to be involved in these financial decisions they do want some say in how finances are allocated to ensure that they have enough resources to teach effectively.

There have been a limited number of studies of New Zealand schools and the impact of the devolvement of financial decision making on schools. Houghton, as quoted by Tooley and Guthrie (2007), examined the role of budgets in New Zealand primary schools and found that resource allocation was identified by respondents as the most important role of budgets, however budgets were little used to differentiate schools. In a series of studies (Wylie, 1994, 1997, 1999) the focus was on the spending patterns of schools which resulted from financial decision making and not the financial decision making process itself and its relationship to student achievement. Furthermore in Secondary Schools 2012 the time Boards of Trustees spent on financial management was highlighted (Wylie, 2013). Despite the widespread devolution of financial decision making to schools in New Zealand no literature was found that examined how this devolution affected student outcomes.

**Evaluation of Financial Decisions**

In this section the literature will be examined to understand how financial decisions are evaluated by educational leaders. When schools allocate extra resources or indeed reduce the resource allocation it is important that educational leaders evaluate the impact of the change. However with regard to financial decision making there appears to be little information regarding the decision and the effect on student achievement. This section starts by looking at that very point; the disputed relationship between expenditure and student achievement. Finally a model for the
evaluation of financial decisions will be examined as well as the growing influence of
data driven decision making on evaluation of decisions.

Interestingly Scott's (2005) investigation into the budget process in one New Zealand
secondary school revealed eight factors that made up their budgeting process, these
were focussed on setting the budget. In Scott's study the school involved clearly
linked the establishment of the budget with the strategic plan and used student
achievement and other quantifiable data to assist with the establishment of the
budget. It was noticeable in Scott's study of a New Zealand school the emphasis
was on linking the budget to the strategic plan and there was little attention paid to
the evaluation of the financial decisions.

Possibly one of the reasons that it appears that educational leaders do not evaluate
their financial decision making against student achievement is that there is debate
about the relationship between the two. The most significant theme that emerged
from the literature challenges the assumption that there is a positive relationship
between increased expenditure in education and increased student achievement
(R Levačić & Vignoles, 2002; Hanushek, 1989; Hanushek & Rivken, 1996). The mere
increasing of resources will not improve the quality of teaching and learning and
rather effective educational leaders ensure that there is a clear understanding of the
purpose of the resources and how they align to teaching and learning (Robinson,
Hohepa, & Lloyd, 2009). Hanushek (1989) has led the challenge, in a thorough
study of the empirical evidence found that there was no consistent or systematic
relationship between class size, teachers' salaries or expenditure per student with
student achievement. Hanushek and Rivken (1996) examined the growing body of
research that questions the effectiveness of lifting student achievement through the
addition of extra resources. Researchers have examined the relationship between
the outcomes of the educational process and the inputs into this process. Some
describe it with the economic term production function approach which looks at the
output or function of a school or education system as a combination of all inputs.
There has been a repeated failure of research to show a systematic empirical
relationship between average expenditure and student achievement (Costrell,
Hanushek, & Loeb, 2008). Education production function research has been used to
show that schools are inefficient because they often have a monopoly in their
geographic area and therefore do not have enough market pressures to act in the best interests of their students.

However, some English research points the way in showing that when educational leaders have control of financial decisions they are more likely to focus on the areas of teaching and learning. In England through the Education Reform Act, 1987, local management of schools was introduced which allowed head teachers local management over the financial resources they had available (Harrold, 1998). Mason (1996) conducted a study into the impact on head teachers of the reforms. What was found was that surprisingly after the reforms head teachers spent approximately 3.5 times longer on curriculum matters than they did prior to the reforms of 1987. In particular Mason found that because head teachers had control of the budget there was a greater emphasis on what resources could be afforded and subsequently a closer examination of areas for curriculum which can only be developed through budget allocation (Mason, 1996).

Harrold (1998) questions the impact of financial decision making on improving student achievement in individual schools, greater gains in student achievement are possible if principals concentrate on educational matters which give teachers in the classroom the incentive and motivation to improve student learning in their class (Harrold, 1998). Harrold concludes by placing the role of resource management in context:

Optimising allocation (of resources) is but a contribution to improving student learning performance, for the major contribution to learning is made by teachers and students inside their classrooms. Nevertheless, attention to avoiding waste and to satisfying teaching staff about the equity of allocations contributes to the satisfaction, morale and commitment of teachers when they engage their students. (p.27)
Recently there has been an increase in research into the relationship between student achievement and resource use, making sure there are good outcomes for the money invested in education. School effectiveness as an end goal tends to be focussed on a small, measurable set of criteria. Predominantly this includes literacy and numeracy testing and roll growth in relation to the ‘competing’ schools (Bell, 2002).

Evaluation of financial decision making is of importance as government officials have asked the question of what society is gaining from increasing spending in education, the second issue being to know and support what it is that contributes to efficient and effective learning (Harrold, 1998). Effective school programmes in the United States under Title I, which provides extra financial assistance for school districts with low income families, are more likely to have teachers who are more focussed on academic accountability and see that greater accountability has led to improved teaching practice (Wang & Wong, 2002). Under these reforms the emphasis is on achieving more instead of doing more, a focus on outputs and outcomes (Harrold, 1998).

In the schools studied by Tooley and Guthrie (2007) the educational leader monitored the budgets closely, but this evaluation was focussed on the dollar value spent and there is no reference in their study to educational leaders linking the impact of budgeted expenditure to student achievement. Indeed they point out that in the principal’s review of the management of budget holders the questions asked tended to be about overspending rather than teaching and learning and how student achievement was affected. It is apparent that further increasing resources without having proper understanding and evaluation of the effect the current resources have on teaching and learning will perpetuate current practices that do not always achieve the best learning outcomes for our students (Coleman & Briggs, 2002).

In their book The Strategic School Miles and Frank (2008) state that the feasibility of decisions should be evaluated using four criteria. The first criterion examines the cost and compares the costs of the decision with the expected benefits. The second looks at how the decision aligns and supports other practises in the school? Thirdly, there needs to be an examination of the question of capacity, if the school has the
resources both in terms of both financial resources and human resources. The final area of evaluation identified are the barriers to implementation, which include issues such as employment agreements, statutory requirements and support from staff and the community (Miles & Frank, 2008). Furthermore, there is an emphasis on the importance of the establishment of clear, concrete indicators that will measure both the implementation of the decision and the improvements that the educational leader hopes to generate. However, decisions made are not fixed in stone, and effective educational leaders are constantly monitoring and adjusting to see what decisions are proving effective and which ones need to be looked at again in order to derive the appropriate improvement in student outcomes (Miles & Frank, 2008).

The importance of data in evaluating decisions is a growing area of research in educational literature, however, there is a gap in the literature concerning the use of data to evaluate financial decisions in schools. Data use or data-driven decision making is defined by Schildkamp and Kuiper (2010) as systematically analysing existing data sources within the school, then using the results of this analysis to evaluate teaching, curriculum and school performance. According to Flowers and Carpenter (2009) it is important for educational leaders to use different sources and types of data because no one single source can cover everything that's important to a school. Therefore when evaluating financial decisions it would be important for educational leaders to use more than one source and type of data. Disaggregating school data is also important because that allows educational leaders to examine groups of students in the school. One of the advantages of the New Zealand’s NCEA assessment system is the ease in which assessment data can be disaggregated into gender and ethnicity categories. This disaggregation of data is an important component of helping schools plan improvements in teaching and learning (Halverson, Grigg, Prichett, & Thomas, 2007; Murnane, Sharkey, & Boudett, 2005). Flowers and Carpenter (2009) state that by using contextual data, (for instance examples of student work, teacher planning, behaviour and attendance) an educational leader can then identify areas where teaching and learning can be improved. The implication is that the use of data to evaluate decisions can lead to significant improvement in schools. In order to effectively evaluate decisions it is important that the school has effective data systems which allow educational leaders
to identify at risk students and provide the educational leader with timely, accurate and relevant data (Schildkamp & Kuiper, 2010).

**Issues and Challenges**

The next section of this literature review will examine the issues and challenges faced by educational leaders when making financial decisions. The section will begin by looking at the devolution of financial decision making and then examine to what extent should middle managers or teachers be involved in financial decisions. This will be followed by examining alignment of financial decisions with the school’s strategic goals, a perspective on equity as well as the issue around the adequacy of funding. Finally, this section will look at the constraints schools face around staffing and remuneration of teachers.

**Devolution of Financial Decision Making**

One of the key issues that emerge from the literature is how decisions should be made in schools. No longer is decision making seen as solely the domain of the principal, with the complexities of modern organisations requiring a variety of decision making processes according to the situation. It is important to realise that sometimes devolving decision making improves the quality of decisions and sometimes it does not. Therefore, the key question is not if teachers should be empowered to make decisions but rather in which situations and how should teachers be empowered (Hoy & Miskel, 2008). Decisions, including financial decisions, are made on a frequent basis in all schools and in most s they are made without a great deal of fuss and are accepted by teachers and staff. This is because in all organisations there is a zone of indifference/acceptance where decisions can be made by the leader without conscious questioning of their authority by members of the organisation (Simon, 1947). The answers to two questions would help the leader to determine if the decision fell inside or outside this zone of acceptance. The two questions are: Do teachers have a personal stake in the outcome? Do teachers have the expertise to make a useful contribution? (Bridges, 1967). Bridges view is
similar to that of Owens (2004) who identifies three key tests to do with decision-making: jurisdiction, relevance, and expertise. However Hoy and Miskel (2008) identify another key element, the test of trust. In his study on one New Zealand secondary school’s budgeting process Scott (2005) highlights also the importance of trust to budget planning. This is a crucial question, are the staff committed to the mission of the organisation? And can they be trusted to make decisions in the best interest of the organisation? This question is particularly relevant when an organisation is undergoing significant change in terms of its culture and values. Through these four questions the educational leader has a framework for answering the question of when and how teachers should be involved in collaborative financial decision making (Hoy & Miskel, 2008).

Collegiality was defined by Bush (1995) as a decision making process based around discussion that leads to consensus and where power is shared among some or all members of the organisation who are thought to share the same goals and aspirations for the organisation. The importance of dialogue between the principal and the middle managers was also identified by Scott (2005) when making financial decisions. Work done on school improvement and effectiveness in Britain has focussed on the importance of collegial management styles to improve school performance (Brundrett, 1998). However, Rumbeger and Palardy (2005) highlight the processes which lead to higher levels of student achievement: high teacher expectations, more homework, safe environment and traditional academic subjects. Interestingly other variables, such as teacher collegiality, shared leadership and decision making were found to have no direct impact on student achievement. The extent to which teachers and indeed middle managers are involved in financial decision making is variable and the linkage between teacher involvement in financial decisions and student achievement has been questioned. Therefore one of the issues and challenges facing educational leaders is to know when to involve teachers and to what extent to involve teachers in financial decision making.
Alignment of Financial Decisions

Every school has an organisational design, however one of the challenges for educational leaders is to make sure the school’s resources are aligned to the school’s instructional objectives. Miles and Frank (2008) state that the key element of effective schools is not any one specific input, but rather the combination of resources and decisions that have to align with both the aim of improving student outcomes and the changing needs of the school. It is important that all existing resources are aligned to the strategic direction of the school. One issue when making financial decisions, is not only what to spend, but also what not to spend. If a new strategy is being introduced to enhance student achievement it is often necessary to reduce spending in other areas and one of the issues faced by educational leaders is deciding in which areas to cut expenditure in order to increase the allocation of resources in the chosen area (Miles & Frank, 2008).

Striving for equitable outcomes

The question of equitable outcomes is another issue and challenge faced by educational leaders when making financial decisions. Within schools and across the whole compulsory sector there is a tension that exists between achieving equitable outcomes for students and at the same time excellence outcomes. Simply put, if teachers and schools focus resources on only those students who are keen to learn the quality of student achievement will increase, similarly if resources are focussed on those students who are disengaged and struggling there would be greater equity. (Harrold, 1998). Horizontal equity of school funding is when students with similar learning needs irrespective of the school they attend are allocated the same amount of resources, while vertical equity refers to the concept that students with different learning needs should be allocated resources which reflect the differing costs of meeting those needs (Caldwell, 1999). The funding formula used in New Zealand secondary schools based on decile ratings is one method of addressing equity issues. Indeed improved equity was a key reason given by Picot for the introduction of school choice in New Zealand (Glatter, Hirsch, & Watson, 2004).
In the New Zealand context Nash and Prochnow (2004) state “in the face of all the evidence, it is unrealistic to expect the attainment of middleclass and working class families can be equalised ... as a result of pedagogical action by the school”(p189). Lauder and Hughes (1999) in one of the few New Zealand studies available, conducted over the years 1992 to 1997 a longitudinal study of twenty three schools using surveys and interviews. What this study found is that the reason for poorer performance of schools was largely due to the mix of students, where schools which are mainly working class or with a high concentration of Maori or Pasifika students are likely to perform less well when compared to schools which have a more balanced student mix (Lauder & Hughes, 1999). This research by Lauder and Hughes is backed by research carried out in the United States. American schools districts are adopting socioeconomic integration because of lack of success with race based integration in lifting student achievement. Research found that student achievement increased not through African Americans being at school with white students but rather poor students of whatever race having the opportunity to attend predominantly middleclass institutions(Kahlenberg, 2006). According to Kahlenberg (2006) as long as a majority of students are middle class then integration by socioeconomic factors does not negatively affect the achievement of these middle class students, the key is that the critical mass is middle class (2006). One explanation for this effect is that students with a high level of motivation and success create a culture and expectation of success, while where there is a majority of students from a low socio economic positions a culture of deprivation and despair can prevail (Rumberger & Palardy, 2005). The term ‘peer effects’ is used to describe this idea, where the knowledge a student assimilates during the academic year depends directly on the characteristics and actions of classmates and school mates (Vandenberghe, 1999). The implication made by Vandenberghe (1999) is that there is no clear and indisputable relationship between per pupil expenditure and student achievement but what is well established is the importance of socio-economic origin Therefore the challenge that is relevant to this study is if financial decision making by educational leaders can make a difference in terms of vertical equity.
Constraints Around Funding

One of the challenges facing educational leaders when making financial decisions are the constraints imposed by government funding, collective agreements and staffing practices. In a review of the education reforms of the 1980’s that occurred in New Zealand Hattie (2009) drawing on the work of Grubb (2009) explains that schools have very little discretionary money available once staffing and property expenses are allowed for, and that while teachers’ salaries are linked to experience there is only a weak relationship between salaries and experience. With the money that is available for schools to use once property and staffing issues are accounted for Hattie questions the current devolved model for schools and instead asks if some financial decisions would best be done through a cluster of schools or at a regional or national level (Hattie, 2009). The educational reforms in New Zealand of the 1980’s did lead to the creation of a corporatist metaphor for schools, where schools were expected to get results, as compared to the past where the responsibility of results was that of the student (Harrold, 1998). The resourcing of schools are shaped by political forces, the amount of money a school has available is limited by decisions made in New Zealand by the central government, the collective agreements negotiated between the Ministry of Education and the teacher unions determine salaries, working conditions, timetabling constraints and other rewards and constraints (Kong, 1999). Each year at budget time there is demand articulated for increased spending for the national education budget, with the argument presented that education spending is too low and more money is needed. In each the focus is on the total size of the education budget rather than the marginal returns that extra finances will bring (Harrison, 2004).

Insufficient school funds was a feature in two of the four schools studied by Tooley and Guthrie in 2007 as they had been running an operating deficit and this apparent lack of adequate funding is common in countries which have devolved budgets to schools. This is further reiterated by Wylie (2012) who identified government funding as a key issue, with one in four principals having dealt with financial deficits in the last three years. The move to quarterly allocation of roll based funding was also seen to increase the financial pressure on schools by 47% of principals (Wylie, 2013). Participants in Scott’s (2005) study of budgeting in a New Zealand secondary school
all considered that the self-governing reforms since the Picot Report have increased the expectation for schools to provide a higher level of education than what is funded simply through the Ministry of Education. Furthermore, the four schools studied by Tooley and Guthrie (2007) highlighted that once overheads were covered including electricity, staffing costs and insurance there was little if any discretionary funding for school priorities. Tooley and Guthrie (2007) suggests that this leads to an element of routine in the budget with the aim to avoid making a financial loss rather than using the budget process as a way to improve the outcomes for student. Harrison (2004) argues that there is a lack of a clear relationship between spending and student achievement in schools which indicate that they are economically inefficient.

Miles and Frank (2008) suggest three possible options for schools dealing with a insufficient funding. The first is looking at the resources which are not currently devoted to teaching and learning, for instance administration, and seeing if it is possible to reallocate them towards teaching and learning. Another option is to raise outside funds to support the vision for the school. Indeed one of the issues that current funding places on New Zealand schools is the reliance on locally raised funds. Caldwell (1999) identifies that market reform of Australian education is critiqued because it has led to the reliance on locally raised funds and voluntary donations to sustain programmes in state schools. However locally raised funds have always been a feature of state schools in Australia and with costs increasing rapidly through ICT costs, demands for more personalised instruction there is a need to recognise that a mix of public and private funding is needed for modern schools (Caldwell, 1999). The final option, and the least desirable, at least from Miles and Frank’s (2008) perspective is to increase class size.

**Summary**

The education administration reforms of the late 1980’s were designed around schools being able to have the discretion to make their own choices, based on long term strategy, as to how best use the resources allocated to them by the Ministry of
Education. Twenty years later in 2009 Robinson et al commented on the need for more thinking and research around how financial decision making is linked to the goals of the school. This is further illustrated by the literature on decision making. There is a large body of literature on decision making, little of it however linked directly to making financial decisions. What is evident from the literature is the importance of a decision making process, a key part of which is the evaluation. Possibly because there is a divergence of opinion on the impact of financial decision on student achievement, there is little literature on the evaluation of financial decisions in schools.

To what extent principals devolve financial decisions to middle managers is an issue to be faced by the educational leadership of schools. At the same time there needs to be an alignment of the financial decisions with the strategic goals of the school. This links into the issue of vertical equity and how the needs of the most disadvantaged students are impacted on by the financial decisions made by the educational leaders. Not surprisingly one of the major issues faced by educational leaders, identified by the literature, are the constraints of insufficient funds.
CHAPTER THREE METHODOLOGY

In this chapter firstly the research paradigm that shaped this investigation into financial decision making will be outlined. The chapter will then discuss the research design and the selection of participants in the research. Gathering of data will be explained through sections on questionnaires and semi-structured interviews. The analysis of this data and the important aspects of reliability and validity will then be covered. This chapter will also describe how the ethical issues of the research conducted have been addressed and finally will examine some of the limitations of the research.

The Research Approach

Davidson and Tolich (2003) point out that whenever research is undertaken there are assumptions made as to what is important and also what counts as relevant knowledge. Debates over epistemological frameworks have focused predominantly on the relative merits of qualitative versus quantitative approaches, however by the early 1990s it was widely understood that no one epistemological approach could provide the answers to the questions which arise in educational research (de Landsheere, 1997). Logically any research that is carried out is done so in a political, social and historical context, contexts which will invariably affect the results. Researchers who are pragmatists acknowledge this but at the heart of their approach is the research problem. Cresswell (2002) explains that a pragmatist approach to research is one where the methods being used play second fiddle to the problem.

In this study the epistemological approach is one that embraces an interpretive approach to data collection and analysis. In education, research attempts to address questions or solve problems through the collection and analysis of data for the purpose of description and explanation (Cohen, Manion & Morrison, 2003). As there is little literature around financial decision making in schools the research approach chosen was an inductive inquiry based around qualitative data obtained from a study of four New Zealand Secondary Schools. Cresswell
(2002) states that qualitative research is most useful when there is little research
done on the topic and the researcher is not sure on the important variables to
examine. The purpose of this research was to provide a snapshot of what is
happening in terms of financial decision making in four secondary schools. The
findings will advance further knowledge in this area and provide some shared
understanding based on the experiences described in the study.

In the course of this research data was triangulated. Triangulation refers to the
use of more than one method or source of data in the study (Bryman, 2008). The
use of triangulation in qualitative research is to ensure that there is rigour
associated with the research (Denzin, 2006). Triangulation was achieved by the
use of both semi-structured interviews and questionnaires.

**Selection of secondary schools**

The quality of any piece of research is directly affected by the suitability of the
sampling method that has been used (Cohen, Manion, & Morrison, 2007). For this
study, purposive sampling has been chosen in order to investigate financial
decision making by educational leaders in mid to low decile Auckland, New
Zealand secondary schools. All the participants were professional educators
drawn from the selected four schools. Purposive sampling was used as the
schools included had similar roll sizes and with Principal's who have been in place
for at least five years. Schools were excluded if they were not co-educational,
Year 9-13 state schools in Auckland or who had recently appointed the Principal.
Schools were then selected by drawing on contacts in the profession and then by
virtue of proximity to work, as long travel distances were not feasible due to the
time constraints and costs involved. The sample of schools was taken to meet
the needs of the researcher, however it was not expected that the sample would
also represent the wider body of secondary schools.

The sample size has been set as a study of four secondary schools. This seems
to be a manageable number. There were four principals and approximately 20-24
middle managers, that is five to six middle managers from each school. Middle
managers from all the schools involved were invited to participate in the questionnaire by the researcher. When there were more than 8 responses from a single school a random selection took place, using random number generator on an excel spread sheet to ensure that no more than eight from a single school and no more than 24 middle managers in total participated in the study.

Patton (1990) suggests that the “validity, meaningfulness and insights generated from qualitative inquiry have more to do with information richness and the capabilities of the findings from the data than the sample size” (p 185). For the purposes of this study the above quote means that the information gleaned from the four schools can make a useful contribution to our understanding of financial decision making by educational leaders.

Research Methods

Questionnaire

Through the review of the literature it became apparent that there was also a need to sample the views of the middle managers of the schools. Following successful use of the internet programme ‘Survey Monkey’ for unrelated research it was decided to conduct a questionnaire of middle managers from the chosen schools. The design of the questionnaire was guided by Anderson’s six steps design process (Anderson, 1998). These six steps provide a structured process to follow when designing a questionnaire, the first step is to determine the questions, create a draft, then sequence the questions and design the questionnaire, which is then followed by a pilot test of the questionnaire and the development of a strategy for the collection and analysis of data.

The questions used were determined by the themes revealed in the literature review. The first series of questions were straight-forward asking about the participants’ professional background and experiences. The next series of questions regarded the budget process used in the participants’ schools. The questionnaire then looked at the perceived relationship between resources and
teaching effectiveness as viewed by the middle managers participating. Participants were then asked to indicate the importance of seven factors when making budget requests. These factors came from both the literature and included student achievement data and school and department/faculty goals. The next series of questions focused on the evaluation of financial decision making. Finally the last three questions asked about the issues and challenges faced by middle managers and principals when making financial decisions. The final question asked the questionnaire participants what they think are the main financial issues facing their schools.

The questions were a mix of open and closed as the researcher wanted to investigate the respondents view on financial decision making by educational leaders in mid to low decile New Zealand secondary schools. Both open-ended and closed questions were utilised in this questionnaire. The open-ended questions enabling the respondents to insert their own views and ideas about the question posed, which Cohen, et al. (2000) identify as “the hallmarks of qualitative data” (p.255). However, one of the advantages, of using closed questions, is that they are able to pre-coded, and therefore reduce workload, however not surprisingly analysing open-ended questions, is a more complex and time consuming process (Cohen et al., 2000). The reason both open and closed questions were used was to make the survey more accessible for middle managers and to simplify the coding of the responses. The questions were sequenced from factual questions in order to encourage participation while the middle set of questions were based around rating scales followed by more open ended questions to conclude the questionnaire.

The questionnaire was first piloted with colleagues in middle management to ensure the questionnaire provided rich and useful data and to check that each question was clear and easy to follow. Subsequent to the trial minor changes were made to the wording of question 14, changing ‘spending’ to ‘resource allocation decisions’
In terms of the design of the questionnaire it was deemed important by the researcher to keep the questionnaire short. Anderson (1998) defined a short questionnaire as four pages. The final questionnaire (Appendix 3.1) was eight pages long and as such does not meet this definition of short. However, this length was created automatically by the ‘survey monkey programme used and in piloting the questionnaire the time taken by the middle managers was deemed by them as reasonable and not an undue imposition on their time. Information at the beginning of the questionnaire included a statement that outlined to the participants that by completing the questionnaire they were giving tacit informed consent. Participants were also thanked at the end of the questionnaire for their time and input to the research study. The questionnaire administered 17 questions, including 8 open questions with the opportunity to comment further on 5 of the closed questions. There were a total of 27 responses to the questionnaire which was then reduced by three through random selection. The middle managers completed the questionnaire fully with only question 17 not being answered by 100% of participants.

**Semi-structured interviews**

For each of the selected schools the Principal was interviewed using a semi-structured format, three were interviewed face to face and the fourth interviewed over the telephone. Interviews allow the participants in the research to discuss their interpretations and viewpoints of what is being examined (Cohen et al., 2000). The key criterion as to which type of interview should be used is ‘fitness for purpose’ so for this research there was a desire to get comparable information across schools then subsequently there was a requirement to ensure that the principals answered the same questions, consequently a semi-structured approach was used. (Cohen et al., 2000).

A semi structured interview method was used with each principal of the four schools. An interview guide (Appendix 3.2) was developed from the themes of the literature review. The use of semi structured interviews allowed for greater understanding of the research problem of financial decision making in secondary
schools. In framing the questions for the semi structured interview the researcher looked at each of the four research questions and for each topic developed specific questions to address the issues from the literature. During the interviews the questions were not followed in strict order but all questions were asked in each section. Using the semi structured format it was not imperative to follow the order of questions or topics but overall the questions were asked, consequently resulting in a degree of comparability among the different interviews carried out (Bryman 2008).

The interviews were conducted in the place of work of three of the interviewees and one via telephone, each one took approximately 45 to 60 minutes. Each interviewee was briefed as to the purpose of the interview and the ethical considerations were reviewed as well (Cohen et al., 2000). Throughout the interview the researcher attempted to verify his interpretations of the subject’s answers in the course of the interview (Cohen et al., 2000). All interviews were audio taped and fully transcribed verbatim with the gathered material being considered confidential. Interviewees had the opportunity for respondent validation, the researcher provided the participants with a transcript of the interview (Bryman 2008). This provided the opportunity for the educational leader to validate their input into the research process. Bassey (2003) argues that this process is an important aspect for qualitative studies as it provides rigour as well as helping to meet the ethical demands of the research. The interviewees were happy with the transcript and confirmed verbally with the researcher that they were an accurate account of the interview. Interviewees and the organisations, which they represent, have been identified using pseudonyms.

**Data Analysis**

One of the issues for research using a qualitative approach is the vast amount of data that can be generated by the data collection process. It is important to accept when planning the investigation that qualitative data analysis is not a “passive endeavour” but rather it requires active comprehension, synthesising, theorising, and re-contextualising (Cohen et al.,2000). Cresswell (2002) argues that this is
achieved by active observation, accurate recall, astute questioning and a relentless search for answers. Rigorous and systematic analysis and interpretation of qualitative data is most often time consuming according to Silverman.

When analysing interviews Fontana and Frey (2005) argue that the interview cannot be deemed simply as a neutral empirical tool for the educational researcher. They argue that as the interview involves at least two people then subsequently the information that results is collaboration between all the participants in the interview. Bryman (2008) argues that analysis of the interviews should be ongoing, rather than waiting for all interviews to be completed. This is because it allows the researcher to be aware of emerging themes which may be followed up in later interviews; this was done when time permitted and notes annotated on subsequent interview sheets. In semi structured interviews the data analysis is often a reflexive interaction between the researcher and the transcribed data (Cohen et al., 2000). One of the problems with data analysis of interviews is the tension between breaking the data down into bite sized segments of information that can be coded and therefore losing the overall view of the interview (Cohen et al., 2000), a case of not being able to see the forest for the trees.

Watling (2002) espouse the view that analysis needs to be considered carefully in the planning stage and is an iterative and persistent part of the research process. Watling goes on to identify six elements of qualitative data analysis. The first three elements can be regarded as formative analysis (Watling 2002). The first element is the defining and identifying of data, and for this study data included the thoughts, feelings, and viewpoints of the participants. The second element in Watling’s model of qualitative analysis is the collection and storage of data. Here it is important to realize that it is during the interview process that theories start to evolve (Watling 2002). The storage of data was important in order to make the analysis accessible, through the use of survey monkey, the data was accessible via the internet, while each interview had an electronic copy of the interview as well as a transcription. The transcripts were in a word document format with a wide margin on the right hand side which allowed space for comments and
coding. Back-up copies of the data were stored in a locked office separate to where most of the analysis was occurring. Watling’s third element is data reduction and sampling, where the data is reduced to a manageable size, this means that the value of the data was weighed throughout the project and informed judgments were made as to its usefulness to the research question.

Structuring and coding data is the fourth element identified by Watling and this investigation followed the tactics as outlined by Miles and Huberman in 1998. These develop from the descriptive to the explanatory and becoming more abstract. They have been divided into three subgroups:

A Noting patterns and themes  
B Making contrasts and comparisons  
C Subsuming particulars into the general

The interview transcripts were read and annotated notes were made which identified themes as they emerged. Comparisons were done with the transcripts from all four principals looking at both the similarities and differences. There was an element of not being able to see the wood for the trees at this point which resulted in the final tactic which was making conceptual/ theoretical coherence, through comparison with the literature (Miles & Huberman, 1998). The final tactic led nicely into the fifth element of theory building and theory testing then followed by reporting and writing up the research.

**Validity and Trustworthiness**

Validity is concerned with the integrity of the conclusions that are generated from a piece of research (Bryman, 2008). In undertaking this research with a limited number of secondary schools and a relatively small sample group, it is acknowledged that the results may not be fully replicated if another researcher were to do a similar study using the same research tools. According to Ely et Al (1991) integrity refers to the researchers “concern for the quality, for the value, for the honesty of their work” (p. 219). Trustworthiness is also important in qualitative studies such as this one. In Lincoln and Guba’s (1985) work, they
described trustworthiness as the extent that the findings are worth paying attention to. August and Tuten (2008) identified the importance of being aware of the difference between what was found and what the researcher had wished to find, also their awareness of differentiating from the reality of the responses to expectations of the literature, an example of this was that strategic resourcing was identified in the literature as a part of the role of the principal, while the participants identified it as crucial to their role.

In the interview process particular care was taken to ensure that the information collected was trustworthy. There was careful formation of the interview questions so that they were clear, and these were piloted with a professional colleague beforehand. As both the researcher and the interviewee were both principals issues of the distorting influences of power were likely to be minimized (Cohen et al., 2000). Each interview resulted in a written transcript, a copy of which was given to the interviewee who had the opportunity for verification of the transcript.

The use of triangulation in qualitative research is to ensure that there is rigour associated with the research (Denzin, 2006). According to Bryman (2008) triangulation is where the information gained by one research method can be cross checked against the information from another research method. Triangulation was achieved by the use two methods: semi-structured interviews and questionnaires, the data from both the principals and middle managers being synthesised in the findings.

Bryman (2008) suggests that credibility of research occurs when knowledge and understanding have been extended by the findings from the data. Because there is currently little literature on financial decision making in New Zealand schools the aim of the research was in a small way add to what is known about financial decision making by educational leaders and how it impacts on student achievement.
Ethical Considerations

This research project complied with the Unitec Research Ethics Committee requirements to undertake research with human subjects. Wilkinson (2001) argues that the key ethical issue researchers should address is how we treat others, and that the benefits that are gained from research are not a burden on others. Bryman (2008) explains that the principle of informed consent means that the research participants should be provided with as much information as needed to make an informed decision of their participation in the research. Informed consent must be both informed and voluntary according to Wilkinson (2001). The principals of each of the four schools were approached for permission for their school to participate in the research. Principals were given an information sheet (Appendix 3.3) outlining the research, their role and a consent form (Appendix 3.4). When interviewing Fontana and Frey (2005) highlight the importance of firstly not doing any harm. Ethical concerns around interviews revolve around the troika of informed consent, right to privacy and protection from harm. In order for this to occur firstly the principal’s consent was obtained. All participants were advised that they were able to withdraw from the study within a set time period. Recordings and transcripts will be kept in a secure location. Middle managers gave tacit informed consent as already discussed.

Privacy is another important ethical concern therefore the greater the sensitivity of the information, the more safeguards are needed to ensure the research participants privacy. Going hand in hand with privacy is anonymity, in which the information provided by the participants should not reveal their identity (Cohen et al., 2007). All responses were treated in the strictest of confidence. Neither personal names, nor the name of any organization were used in any public reports. The details of the questionnaires and the semi structured interviews remain confidential. Where needed some data was not used if a potentially distinguishing feature was identified. Personal details of the participants and information that may identify the school will be removed from transcripts to ensure anonymity is provided for all participants and privacy is maintained.
Research Limitations

The first limitation to the investigation is that the participants were all volunteers. Possibly the participating educational leaders were more likely to respond to the questionnaire and interviews if they were predisposed to linking financial decision making and student achievement and supportive of post graduate research efforts. Therefore, data collected and analysed may not be a typical of educational leaders in Auckland secondary schools.

Secondly, one of the semi-structured interviews of the principals was completed over the telephone rather than face-to-face. This occurred because of the lack of availability of a mutually convenient time. However, it does not appear to have significantly impacted on the data as the conversation was still able to be recorded digitally and transcribed in the same manner. Furthermore there was no noticeable difference in the quantity or quality of the responses.

A further limitation of both the questionnaire and the semi-structured interviews could have been the narrowness of the sample. The study of financial decision making in secondary schools would benefit from a larger and nationally focused sample. The final limitation is that the author who is a practicing principal dealing with financial decision making on a daily basis needed to be cognisant that this personal experience did not unduly influence the collection and interpretation of data.

Summary

This chapter has discussed and critiqued the justification of employing a qualitative approach for this research topic, it has outlined the methodological framework for the study, the research process, the methods used in the study,
how the data was analysed and the verification processes involved. The next chapter presents the data findings of this study.
CHAPTER FOUR FINDINGS

Four urban secondary schools were used in this study and this chapter presents the findings gathered from the four semi structured interviews conducted with the principals as well as the information from twenty seven middle managers derived from the questionnaire, as outlined in the previous chapter. This chapter is divided into five sections which are linked with the research questions in chapter one:

- What kind of financial decisions do educational leaders make in relation to resourcing teaching and learning?
- What strategies are used by educational leaders when making financial decisions?
- How are financial decisions evaluated by educational leaders?
- What are the issues and challenges facing educational leaders when making financial decisions?

Each section will look at the view points of the principals then the middle managers. When a section is only concerned with the principals, or the middle managers, responses that will be reflected in the writing.

The first section looks at the making of financial decisions by educational leaders, in particular the primacy of the principal and the role of the school's strategy, vision and image in financial decision making. The second section looks at six areas of financial decision making that emerged through the semi structured interviews. Section three looks at the link with student achievement while section four will look at how financial decisions have been evaluated by both the principals and middle managers of the schools making up the study. The final section looks at the issues and challenges faced when educational leaders make financial decisions.

Making Financial Decisions

Financial decision making is an important part of the role of principal and middle managers as this section shows. It was clear through the interviews that each
principal devoted a significant amount of time to the financial side of running the school and viewed the operation of the school in terms of a business model. The words of one principal, presented below demonstrate that even though schools are non-profit organisations, principals are aware of the importance of running their school as a successful business.

Employing a large number of people within that community and they are a very successful business in most schools in New Zealand. So we have got to make sure that that model is reflected with, in terms of the status of the secondary school in the community and within the Ministry to maybe even to the Government level thinking that schools are not just schools they are a very successful business. Not cashing up on students but making sure that the Government's money is well spent.

Principal B

Sound financial decision making is an important aspect of educational leadership in the four schools studied in this investigation. The emphasis of the importance of financial management in schools was emphasised explicitly, as revealed through the three statements that follow:

I mean if you weren’t carefully watching how the funding was going from a Principals point of view you would be failing in your job.

Principal C

I probably put as much time into the finance side of things as I do anything else, any other single part of the school, because if it is not right then all sorts of other things will unravel.

Principal A

I think that the key thing with, that I have found as a Principal, teaching and learning for me is number one but running the business is the
overall, the overriding, you know, nemesis, if you don’t get that right you crash and burn.

Principal B

In particular the interview process revealed that the principal played the most important role in financial decision making for the schools. In the schools the financial priorities were determined by the principal. Indeed when asked how the financial priorities are decided upon in the school the principal responded: ‘Ultimately it’s me.’ (Principal A). The principal goes on to state that as long as the school is budgeting for an improvement in its cash position then the Board of Trustees is satisfied:

You know I put a budget to them, they get a couple of weeks to look at it, but the discussions at the Board meeting may last five or ten minutes...the main decisions basically come back to me and then get signed off by the Board.

Principal A

The primacy of the principal in financial decision making was illustrated further through the comments below, this principal starts by emphasising that it is a team approach to making financial decision making which are approved in conjunction with the Board of Trustees. However the principal then states:

But I make, given that, significant decisions around approval of budgets, expenditure on items that are requested as well as planning ahead for matters that are different.

Principal D

For three of the schools the budget process was essentially requests put in by middle managers who were budget holders, then the principal made the decisions and subsequent recommendations to the Board. Although other people or groups may have been involved and this would include the business manager or the
equivalent, the Principal had the significant influence. In School C the principal has established a budget advisory group consisting of three teachers who are not middle managers but span across curricular areas. On the face of it the approach in School C devolves budget sitting to the budget advisory group, however it is obvious that the principal is most clearly in charge of the decisions. The influence of the Principal in financial decision making in School C however is apparent; first the Principal and the school’s executive officer allocate the money into the fixed costs and then a lump sum is given to the budget advisory committee. The Heads of Department fill in a budget application booklet in which they outline their perceived needs for the following year. This includes departments listing their capital needs, the number of students at each level, curriculum and assessment changes. The Principal then goes through each request as revealed through this quote:

I initially go through them and if I consider there are some rather questionable things that are in it I simply put a question mark beside it, if there are some other things in there which absolutely fit in with the schools overall plan I simply put a tick beside it.

Principal C

Once the principal has made these indications the budgetary advisory group then have two or three days in November to work through the requests and this includes talking to Heads of Department and other relevant staff. During that time the budget advisory committee develop their recommendations for the curriculum budgets and group proposed capital expenditure into three categories: essential, nice to have and the third category described by the principal as ‘only if we win lotto.’ Once the budget advisory committee makes their recommendation the Principal of School C in conjunction with the school’s executive officer examine the recommendations and in most cases approve them, however there are times when self-described ‘fine tuning’ is carried out by the principal.

In all the schools in this study the middle managers of the school were deemed by the principals to play an important role in terms of financial decision making as captured in the two statements below:
They are the ones who create, who make the requests. They are the ones who put their departmental budgets together and ask for what they want.

Principal D

Middle managers very much so because they put together their budget and if their budget is responsible and effective and it fits in with past patterns then basically it just gets approved.

Principal A

In the words of Principal C middle managers are ‘intimately involved’ in the financial decision making process. All the middle managers who responded make budget submissions, the most common process was through a written requests with only four middle managers stating that they discuss with the principal or senior management their budget request for the following year (Appendix 4.1). This first quote from a middle manager emphasises the primacy of the principal in the process:

I make a request and the principal tells me how much I have.

A middle manager

However it does become clear that although the principal has primacy in terms of how resources are allocated to each budget holder, it is then generally the responsibility of the middle manager to spend as they see fit. For example in School A once the principal knows roughly where the money is to be allocated for by the middle managers it is over to the budget holders to exercise control and discretion over the funding.

The above section shows that although middle managers play an active role in financial decision making in schools, and Board of Trustees officially sign off on the budget, ultimately it is the school principal who has primacy around financial decision making in the four schools that comprise this study.
Strategy, Vision and Image

The role of strategy, the school’s vision and perception of the community will be addressed in this section.

The principals interviewed made clear links between their financial decision making and the strategic plan of the school. When asked how financial priorities are decided upon for your school, the principals referred regularly to the link between the strategic plan and financial decision making. The importance of strategic planning in informing financial decision making is emphasised in the following quote:

“The big thing is we, we do, the nuts and bolts of the school is first of all everything is driven from what is called our strategic plan and we make sure that when we look at our strategic plan and our annual plan, ... So we try to make sure everything fits within that and our number one goal is raising student achievement so it all comes to, to particular deliveries all about delivery of curriculum basically... when we look at making those calls it is, is it going to drive student achievement, if, does it, do we feel comfortable with it, cause it fits within our framework of our annual plan and strategic plan and then we go from there basically.

Principal School B

To look at the principal’s comments further regarding the relationship between strategy and financial decision making there are different levels associated with the expenditure of the money for which principals have a degree of discretionary use. Through the semi structured interviews it emerged that there were three areas which saw the principals use their discretionary funds. The importance of good quality teaching and teacher morale was identified by the principals of the four schools in this study as an area which attracted discretionary resources. The second such area was a focus on the core academics of the school and a third area was where the principal provides extra resources which may not have been aligned with the strategic plan. This type of financial decision making was described as ‘redressing the balance’ (Principal D) as explained in the following quote:
But there is also an element of I guess added, added discretion. For example if we have a department that perhaps has been a bit hum drum for a while and you get a new head of department come in who has got all these big ideas you may well, after discussion, afford that HOD a bit more money than might be expected in future years just to get things back on an even keel.

Principal D

Two of the four principals explicitly mentioned the role vision plays in making financial decisions. In particular this appears to refer to middle managers who want to develop their area, again this may not be explicitly mentioned in the strategic plan, however, it does not run counter to the strategic plan. Influencing the financial decision making is the vision and future direction of departments, as revealed by the following two statements:

Areas that show some sort of vision as to where they want to go will get funding.

Principal A

...where as a Principal you are encouraging keen people in whole different areas of the college that if they have got a vision which fits in with the overall school plan and isn't going to cause problems in the general movement on the college board, you will do what you can to support them.

Principal C

Only the principal of the school with the highest decile rating identified the image of the school in the community as being an important aspect of financial decision making. In this school some areas of the school receive extra funding and resources because of the perception that that these areas act as a magnet for the school, this is shown in the following quote:
Music does a fantastic job here in terms of PR in the community and it is a magnet sort of thing, it pulls in good kids from other areas, and it pulls in good kids... So sometimes just for enrolment, sort of the whole tone of the school and that, you perhaps put more resources into something and that really has to be (the Principal’s) call.

Principal A

Strategy and vision were seen as important drivers of financial decision making by all the principals in the study.

The Six Areas of Financial Decision Making

As the Chief Executive Officer of the school the principal is intimately involved in financial decision making. From the semi structured interviews of the principals there were six key areas which emerge in relation to the financial decisions made by the educational leaders in this study. The six areas that emerged in this study were:

- Fixed and Overhead Costs
- Maintenance of Property
- Staffing
- Funding of Curriculum Areas
- Special Projects
- Income.

*Fixed and overhead costs* were costs faced by the schools, which they had very little if any control over. These were costs which had to be expended each year to ensure the school could function. Examples of such costs are electricity, insurance and maintenance of the grounds. Although there is little room to manoeuvre on these costs each principal was aware of the impact that they had on what they could do in the other areas; effectively the higher the fixed and overhead costs the less discretion was available in the other areas.

In recognition of this, one principal says:
“So I would suggest there is probably about 40% of that money (our operating grant we have discretion over) we can still function in terms of running and decision making.”

Principal B

The *maintenance of property* is funded out of operational funding, and was explicitly identified by two principals as a concern in relation to old buildings which need increasing maintenance and through inadequate funding. However the decision to expend operational money on property is sometimes outside the range of fixed and overhead costs but rather a deliberate decision to enhance the quality of the facilities in order to improve community perception of the school as reflected in the words of this principal:

“So I think it is important that you manage things properly so that not only is money going in to the classroom but it is going into the buildings and the grounds so that the place looks an attractive place that people want to come to. I remember a story of the school sort of twenty years ago I think it was where the Principal was helping by putting a lot of money in to the curriculum and the classroom and its fantastic but the facilities gradually ran down and then, so when people drive past and look at the school and say oh god I am not going to go there, because they don’t actually see what is going on.”

Principal A

This emphasis on the school’s image contrasts with the following quote and indicates at times contrasting viewpoints of the principals regarding maintaining property and consequently school image as opposed to the use of funds for direct improvement of student learning:

So, luckily we have got a board that focuses on that too, so you know, we are spending for example a hundred thousand dollars on a property improvement from working capital and the first question the board says is why can’t this money not be used to improve student learning?
Long term property development through five year property agreements was not explored in this study explicitly however it was broached briefly by principal’s A and D who saw that a good environment was conducive to good learning.

The third area that the principal is involved in is related to staffing. Teacher staffing is the major component of funding from the Ministry of Education that goes to state schools in New Zealand. In all four schools in the study the schools were staffed above the allocation from the Ministry of Education. Principals of the four schools in the study employ extra teaching staff for three main reasons. Firstly extra teaching staff are employed to ensure that a breadth of curriculum is offered, secondly so that specific learning weaknesses of students can be targeted and finally some subject areas are privileged with extra teaching staff because of the image that they create for the school. However this extra staffing comes at a financial cost for the school as one principal asserted:

So, last year we were over staffed by about three or four so you know there is $150,000, $200,000 disappears. So we have tried to tighten up on that this year and we have reduced, reduced staffing levels. So staff and support staff is expensive.

The deployment of teaching staff is therefore an important financial decision made by the educational leaders of the schools in this study. When the principals were asked how they decided to allocate teaching staff, student subject choice was the dominant factor as captured in the statement that follows:

Obviously timetable is our biggest driver. We have, you know, the staffing allocation number one is what is determined by the Ministry. So we see what we get from staffing there, we then see where are the gaps in our timetable if there are kids choosing it, choosing certain subjects.
Principals identified the issue of class size as one of the areas that they have to be aware of when making decisions about staffing allocation, although what was a minimum number of students needed for a class to run varied from eight in one school to twenty two in another. However student choice does not necessarily determine alone the allocation of staffing resources. One of the issues is the employment of specialist teaching staff. The example Principal A gave was of a Japanese teacher, if there are not enough students wanting to do, in this Japanese, then that teacher still has to do something with their contracted time, so classes may run even if they are not economical under the staffing formula.

Linking staff allocation to the strategic plan and the values of the school was deemed important by two principals, one of whom stated:

“So we specifically targeted average student achievement that put in a teacher into that area, possible above our staffing allocation, would have an impact, a positive impact on student achievement.”

Principal B

The demands and the way the school is perceived by the community also impact on staffing allocation. Principal A in the interview explained how Music in particular is given extra staffing relative to the numbers choosing it because it does a fantastic job in public relations for the school in the wider community.

Outside of teaching staff, ancillary or non-teaching staff are a significant expense as already evidenced and as one principal states, “...it is a huge cost and you have to make sure it is the best thing for the buck” (Principal B)

The fourth major area of financial decision making identified by educational leaders was the funding of curriculum areas often referred to departments or faculties, and it was this area where there was the greatest amount of discretion as to the decisions which could be made. For all four schools the middle managers made their budget requests annually and then this was reviewed by the principal and in one by a committee of staff members as well. Included in this expenditure was teaching
resources, photocopying, minor capital items. It was this area which was most identified by middle managers when they were asked what constituted their budget.

The fifth area where educational leaders need to make financial decisions is around what could be called *special projects*. This may be funding a department or area of the school due to past underperformance, so an injection of money is used to kick start improvement, as shown through the words of these two principals:

For example if we have a department that perhaps has been a bit hum drum for a while and you get a new head of department come in who has got all these big ideas you may well, after discussion, afford that HOD a bit more money than might be expected in future years just to get things back on an even keel.

Principal D

So often I will get people who come to me and say oh you know such and such is available now but we didn’t budget for it. And sometimes I can shuffle things around and I can find money if it is a reasonable sort of thing.

Principal A

However the educational leaders also identified problems with a special project approach, which is often initiated by outside agencies as captured in the following two statements:

I have got increasingly intolerant of outside organisations, and I include the Ministry in that, coming along in term four and making, you know, boy have we got an offer for you and I just say to them, you know, you have asked us to be strategic and yet you are coming along at the eleventh hour expecting us to be able to throw everything out of the window that we have done strategically just to be able to accommodate this little thing that you have got.

Principal C
And we have a lot of [initiatives] come in … from outside... we just go if it is a one off hit it is not sustainable we go no... and just write it off basically.

Principal B

The sixth area of financial decision making which was identified by the educational leaders in the study, revolved around income, in particular gaining income from other sources to supplement the funding provided by the Ministry of Education. It was notable that all four schools to varying degrees were able to supplement their funding in this way. The importance of these extra funding streams is illustrated by this quote from a principal:

So our only stream of income tragically and sadly is the Ministry of Education.

Principal B

It is to be noted that the principal had just listed funding streams from school fees and international students prior to making the above statement and also later mention sources of funding received from the local health board. In interviewing the principals of the four schools in the study it was obvious that finding additional income over and above that received from the Ministry of Education was a significant aspect of the financial decisions they make. The following two lengthy quotes are used to reveal to the reader the importance as well as the multitude of ways that principals seek extra funding for their schools:

Every year we will always be looking for other funding to support the students… We also have signed up to the Fi Fod Funding, that is Find your Field of Dreams, so that is some extra funding that comes in to support a number of the PE and sports programmes within the school. We also have a contract with the Ministry of Health for the employment of our nurses. We have a memorandum of understanding with a local social services organisation and we host a social worker.

Principal C
International fee paying students, we net probably about $600,000 from that. The fees, subject fees from parents are reasonably high... So getting money from parents. We do put in applications to various trusts, particularly in the sports area and we probably get around $10,000 a year from that.

Principal A

Generating income presents the issue of taking time away from the specific leadership of teaching and learning in the school and instead having that time spent on generating extra income. The following quote from a principal sums up this dilemma:

The big frustration is to generate as much revenue as you can to add to the pot without negatively impacting the core businesses of teaching and learning in your school.

Principal D

This section shows six areas of financial decision making emerged from the semi structured interviews with the four principals. The first five areas; fixed and overhead costs, maintenance of property, staffing, funding of curriculum areas and special projects are all decisions made around costs. The sixth and final area which emerged was generating income, which presents a dilemma around the time and effort needed versus time spent on teaching and learning.

The Link with Student Achievement

This next section looks at the link between financial decision making and student achievement. The section will begin by looking at the views of the principals in the study and then the viewpoints of the middle managers. When looking at this issue it became apparent that the four principals in this study perceive an indirect link between financial decision making and student achievement, however, middle managers see the relationship as being stronger.
Principal A perceived indirect relationship between financial decisions and student achievement but a closer relationship between effective teaching and financial decisions was identified by the principals. In particular the principals were of the view that well-resourced teachers are likely to be more highly motivated and happy in their work and subsequently more effective. The words of one principal below demonstrate the importance of staff morale:

> I think it is a morale thing as much as anything. I don’t think necessarily money as such is going to improve it (student achievement) but good teaching will improve it, and if you can keep the good teachers because they are well resourced then that’s the point.

Principal A

The perceived strength of the relationship between student achievement and financial decision making varied for each principal. Principal B saw the strongest link and this is revealed by the following quote:

> ...whenever we get money into the school we look at how we can improve teaching and learning...when we get more dollars can I bring more teachers into the school... luckily we have a Board that focuses on that too, so you know, we are spending a hundred thousand dollars on property investment from working capital and the first question the Board says is why can't this money not be used to improve student learning?

Principal B

The principal then elaborates this statement by giving an example of when extra resources were used to improve student achievement. Where the school identified that the literacy levels of their students were a concern heading into NCEA, they then employed an extra teacher to work with Year 9 and 10 students.

While the above is an example of a strong connection between resources and student achievement the strength of the relationship between financial decision making and student achievement was queried by other principals and was deemed
as ‘tenuous’ (Principal C). When asked about the relationship between financial decision making and student achievement one principal said:

I mean theoretically it should be a close relationship but I don’t know that it is. I mean I guess, yes, effective use of the resources must impact student achievement... So I guess in the main it is around these judicious use of the money that has been requested for reasons that are well aligned with the curriculum. And if it, if the money appears to have been used well and the results are good then everybody is happy.

Principal D

However, this same principal does explain that if a Department or a Budget area is not performing well then budget requests would not be looked upon favourably:

I guess if a department is not doing well in terms of their results the first thing I think about is not the budget, it is more about what is happening in the teaching, in the teaching and learning. But certainly if a curriculum area, students are under achieving in a curriculum area then, if that curriculum area is asking for more money I have to say that they would not be favourably looked upon.

Principal D

The differing views of the principals contrasted with the vast majority of middle managers who saw a direct link between financial decision making and teaching and learning in their budget area. This is evidenced in questionnaire responses when middle managers were asked to indicate the importance they placed on various factors when making budget decisions, twenty out of the twenty seven middle managers rated student achievement information as either critical or very important, the second highest rating behind departmental goals for the following year (Appendix 4.2). The following quotes also support the importance middle managers place on budget decisions and resource allocation to student achievement:
When analysing our student achievement for our annual report, we place budget requests to fund initiatives we found particularly successful during trial periods.

Middle Manager from School B

If I was to make a radical departure from previous budget requests it would have to be with a strong focus on enhancing student achievement.

Middle Manager from School A

One middle manager did respond that resource allocation is only important in terms of meeting the basic requirements. An analysis of middle management comments shows that they believe that financial decisions can positively impact on three areas: achievement, engagement and catering for diversity. The link to student achievement is supported by the above quotes and highlighted by one middle manager who stated that low grade resources will result in low grade student achievement, to paraphrase garbage in, garbage out. The link between financial decision making and student achievement is shown in the following quote:

The very essence of science is to understand the world in which the students live. As such the provision of equipment and materials to assist with experimentation and demonstration greatly impacts on a student’s ability to understand the concepts being learnt.

Middle Manager School C

Middle managers drew explicit links between resources and engagement in the classroom. Obtaining stimulating resources which will engage students in their learning was commented upon by middle managers as a key effect of financial decision making in schools. The following quote gives an indication of how middle managers see student engagement being enhanced:

When students get excited and motivated by the possibilities (of the subject) their commitment to learning and achievement is enhanced.
Middle Manager School A

In the Library we must ensure that our resources are current (to meet the learning needs of the student) and attractive (to get the student to pick them up in the first place, especially in the area of fiction).

Middle Manager School A

This link with student engagement by middle managers is further developed through the perceived connection middle managers made with resource allocation, financial decision making and catering for diversity. Middle managers identified through their comments that extra resourcing is needed to cater for diversity in their areas. When asked if they had enough resources to teach effectively one replied that they did but are “…way under resourced for pupils at the bottom of the heap.” Middle managers identified the extra need for resources for those students who come from disadvantaged families. Here the middle managers saw the impact of socio economic status and resourcing demands, with the implication that students from lower socio economic backgrounds benefit the most from resources.

In recognition of this, one middle manager says:

At the top end, with capable pupils from wealthy homes, not much affected by the school resources. At the bottom end, I need teacher aides and all of the technology and toys I can get if we are going to make a significant difference.

Middle Manager School B

The aspect of diversity, catering for students from different cultural backgrounds, is also addressed by the middle managers as to how they make financial decisions and the potential impact that has on students as reflected in the words of this middle manager:

Culturally relevant texts are very important for our students and the purchase of these has been and continues to be a need.

Middle Manager School B
In this section the focus was on the link between financial decision making and student achievement. The principals in this study saw an indirect link between financial decision making and student achievement, in contrast the middle managers identified a strong link. Consequently middle managers factored student achievement information, concerns around student engagement and student diversity into their financial decision making.

**Evaluation of Financial Decision Making**

This next section will look at the evaluation of financial decision making firstly from the viewpoint of the principals who lead the four schools in this study and then from the perspective of the middle managers of all four schools. Principals’ responses have been categorised into three elements:

- Capacity- does the school have the resources, or to put it another way, keeping to budget.
- Alignment- was the financial decision aligned to the strategic plan and the vision of the school?
- Cost/ Benefit- did the added expenditure result in the desired improvements?

As mentioned earlier in this chapter the educational leaders take the responsibility for making financial decisions very seriously and in particular, when asked how they evaluated their decisions, making sure they did not overstretch the capacity of their school was the most common factor in their responses. The following response was typical from the principals:

How much money is in the bank? At the end of the day that is the most, how much have we got in our investments? Yeah that’s, I mean I go through and monitor things and the board monitors, we do that ongoing monitoring all the time of expenditure against budget and making any adjustments that we need to as we go through.

Principal A
In-depth analysis of spending was a key aspect of the evaluation carried out by the principals of the study and it was apparent that this was viewed as critical in their evaluation of financial decision making. The use of outside financial management firms provided data for the principals, as reflected in the following quote:

They are really really useful and they have for a number of years now provided a sequence of graphs on those monthly reports for the finance committee and the board to be able to see so that they are able to see how things are tracking along. So, on a monthly basis there is very very careful attention being paid by the finance committee to have things tracking along there.

Principal C

This analysis also leads the principals to monitor and track very carefully changes that may affect the financial bottom line of the school. This detailed analysis of both expenditure and income for the school is shown in the following quotes from the principals:

On a slightly deeper level I also do track heat, light and water because we have had a big push to attempt to be as eco-friendly as we can be with electricity. As I have let you know we need to keep an eye on the water to try to get some early warning signals if we have got another leak coming.

Principal C

I think by June we had a net loss of eight students from the school but last year we had a net loss by June of about forty students. Now that, that impacted on operations grant because last year you know they bought in the system of taking money off you if you’ve had that net loss.

Principal A

The second element concerning the evaluation of financial decision making identified in the semi structured interviews with the four principals was the alignment of
financial decisions with the strategic plan or vision of the school. Interestingly it was only one principal who mentioned the strategic plan when asked about evaluation who discussed alignment, as shown by the following quote:

It is just basically using, using all that information at feedback groups so everyone knows why, why and how things, you know link in basically.

Principal B

Although this alignment was mentioned heavily when making the financial decisions, when it came to evaluation it was clear that for the principals, alignment with the strategic plan was at the most only a small part evaluation process. This was made evident through the comments of one principal who was asked if there were anything else to be added to their thoughts on financial decision making:

This session... raising issues in my mind...Which is good and in terms of making sure that am I thinking where all that money is spent, so that is a key thing, and, also linking it to... our strategic plan... making sure that our business plan to be honest is, is our strategic ... I have got to make sure I take it back to the HOD’s ... making sure it does link to our strategic plan which I probably hadn’t done in the past. We have just asked for tell us how much money you want and why and I am probably going to throw it back in to the strategic plan area there too so, that would give them another reason of why we do things.

Principal B

The third element of the evaluation of financial decision was looking at the costs and the perceived benefits derived. This was the only element which was mentioned by all four principals and their view points on an evaluation based around costs benefit was varied which corresponds to the principals’ views of the linkage between financial decision making and student achievement. The first quote from a principal shows where there is deemed to be little relationship between financial decision making and student achievement:
I mean I don’t sit down and say oh look I spent $80,000 on the science department and they produced, you know three scholarships or I spent $20,000 on this one and they produced ten scholarships so I don’t, I don’t do that sort of, I don’t go back and look at academic results as against the money because it is what teachers do in the classroom not where the money is spent.

Principal A

Other principals expressed a differing view as to how the evaluation of financial decision making can be seen through a cost benefit analysis, as one principal asserted:

I come back to the annual meeting that we have with the Heads of Departments where as Principal you know if curriculum area A was better resourced than it had been in the past previous year as opposed to another one and that, if the student achievement results don’t seem to have had a huge amount of difference to the way it was previously then it does allow some searching questions to be asked.

Principal C

A more direct approach to cost benefit analysis and linking with student achievement information when evaluating financial decisions was outlined by the following principal:

We look at our results, academic results particularly as I said with literacy and numeracy and we, you evaluate where, if we have to spend more money in those areas.

Principal B

These three elements: Capacity, alignment and cost benefit, were identified by the principals. This next section will look at the views of the middle management in the four schools.
In Question 12 middle managers were asked how they evaluated the financial decisions they made, the responses show that the majority did so informally (Appendix 4.3). Furthermore middle managers were asked through Question 13 the extent to which they consider the following four points when the evaluate resource allocation:

- Make sure you keep within budget
- Compare the costs with the benefits
- Check that your decisions align with the school’s strategic goals
- Examine barriers to implementation.

In School A, all middle managers evaluated resource allocation decisions each year, with most evaluating the decisions informally either individually or as a department. Keeping within budget was rated highest along with the comparison of the cost with the benefits; this was followed by barriers to implementation and alignment with school goals.

In School B some middle managers were too busy to evaluate their financial decisions. For the majority who did evaluate their decisions, the most important consideration of the evaluation was keeping within budget, this was followed with checking alignment to planning documents. Comparing costs with benefits and examining barriers to implementation were the lowest rating in terms of the question 13. Middle managers elaborated further:

I don’t have any sensible or reliable tool for calculating costs and benefits. I know if I had the budget to address problems the school could get better results; that money is not available in education and politicians and non-teachers are full of criticism and think miracles come cheaply.

Middle Manager School B

All the middle managers in School C who responded to the questionnaire evaluated their resource allocation decisions, six of the seven carried out the evaluation as a department, with this being evenly split between a formal and an informal evaluation.
The most important factor when evaluation decisions was keeping within budget, the next three factors were rated the same with two middle managers strongly agreeing and five middle managers agreeing with the following statements about evaluation: “Comparing costs with benefits” “Check that your decisions align with the school’s strategic goals” and “Examine barriers to implementation”

In School D all the middle managers reviewed their resource allocation decisions, half did it informally and the other two formally as a department. The key factor when evaluating decisions was making sure that expenditure was kept within budget, second was comparing costs with benefits followed by alignment with school goals.

Overall, despite individual variations between schools and individual middle managers, it is clear that the most important factor when evaluating financial decision making for middle managers is ensuring that expenditure is kept within budget (Appendix 4.4).

This section has focussed on the evaluation of financial decision making by both principals and middle managers of the four schools in the study. Keeping within budget was the most important aspect of evaluation of these decisions, however when the principal or middle manager saw strong links between financial decision making and student achievement then the cost and benefits of the decisions were more likely to be evaluated.

**Issues and Challenges Faced by Educational Leaders when making Financial Decisions.**

This section will focus on the issues and challenges identified by the educational leaders which they face, and with the Middle Managers, also the issues and challenges that they perceive the Principals face of their school. This section is itemised into four areas:

- Staff participation
- Funding and equity
- Constraints associated with financial decision making
• Training in financial decision making.

Each itemised section will look at the viewpoints of the principals followed by that of the middle managers.

**Staff Participation**

The process used by all the schools in this study of financial decision making involve a significant amount of involvement from middle managers. Furthermore once expenditure has been allocated to budget areas it is also clear that the middle managers have a fair amount of discretion as to that expenditure. When asked about issues and challenges faced when making financial decisions, none of the Principals identified conflict with staff as being present, indeed the following comment was the only comment from the four Principals to touch on the potential for a financial decision making dilemma:

> You know, but to be honest I always make a meeting time, invite them in, let them know what the discussion is going to be about and I have found them, I can’t think of one that didn’t go well. It doesn’t mean to say the person is always happy but if they understand the constraints under which we are working and the fact that we do work hard to generate more income than the Government gives us and that they have got more as a result, because they have, I find that people are working very well with, with the team that is trying to manage the budget of the bigger picture level.

Principal D

For middle managers when asked about the issues and challenges faced by the Principal when making financial decisions, only three out of the twenty four who responded identified fairness in allocation as being a factor. This viewpoint is supported by the middle managers, who were asked what they considered when making budget requests and the lowest rated factor clearly was the amount of money received by other areas. Furthermore when asked about the challenges they faced as middle managers making financial decisions there was only one comment about the need to keep everyone in their department or area happy (Appendix 4.5).
Funding and equity

The next issue and challenge identified revolved around the adequacy of the resourcing for the schools and equity. It was no surprise that the primary concern for principals was focused on this area. The principals described an inadequacy of funding and emphasized a disconnect between the amount that they are funded by the Ministry of Education and the expectations placed on the school by both the community and the government, as described in the words of one principal:

[The amount of money you get]... from the Government, its adequate if you want to provide an inadequate level of education. I think the Government sets expectations on the community of what the community can expect from its school at a level far higher than it is willing to fund the schools.

Principal A

For the principals the issue of inadequate funding or the need to increase funding was one of equity, the desire for the students from lower social economic families to have the same opportunities and chances as their wealthier peers. In recognition of this, one principal says:

But the big issues is really getting it within my type of school, the reality is we don’t have, our parents don’t have the resources at home that high decile schools do have in terms of parents like myself who have been educated, qualified, know how to play their role in the school, bringing up kids through the school system and our schools need more support in, in that area basically. So it is about trying to get more funding in to our type of school where there is not that wealth in the community to help bring kids through to achieve. Schools do it really well and, in all schools but without families at home being able to have that skill set you need to have more of an impact in that sort of six hour window per day basically.
Principal B

Thirteen of the twenty four responses from middle managers when asked about the issues and challenges that they perceive the principal as facing identified a shortage of resources. The following quote is indicative of the sentiment of the middle managers’ comments:

Lots of needs and a miniscule sum of money to meet them.

Middle Manager School B

When the middle managers were asked what they perceive as the issues and challenges faced by their principal, the overwhelming response was to do with the financial health of the school and ensuring that the resources coming in are assigned effectively according to student need. The key word was balance as captured in the statements that follows:

Making sure that the books are balanced at the end of the year and that all spending results in improved outcomes for students.

Middle Manager School C

This viewpoint is supported when middle managers were asked about the challenges that they faced when making financial decisions with nine middle managers identifying a lack of funding and increasing costs as their major challenges and issues. Furthermore, alongside perceived scarcity of resources being a challenge, the middle managers equally rated student needs and equity as a challenge and issue they face in their financial decision making. A Middle manager also stressed that while they had the resources to teach the majority of students effectively; those with higher needs required significantly more resources. The following quote is illustrative:

There are many more students in need of support coming in at Year 9, than we can effectively support through our budget. Therefore it is always an issue of analysing and prioritising student needs.
Middle Manager School A

Around the issue of funding and equity, the demand and need for ICT was the next most significant issue and challenge the middle managers perceived the school faced with six comments explicitly referring to the demands imposed financially by technology as one middle manager explained:

Not enough funding from the government. IT costs. IT changes so fast that money has to be wisely spent so that equipment and programmes do not become obsolete.

Middle Manager School A

The majority of middle managers identified inadequate resources for the school as a major issue and challenge and this was particularly linked to catering for diverse learners. However there was one middle manager who made the following comment:

Some staff believe the school should pay for their every whim. Education is not like that and saying it should be or blaming the schools for bad decisions around limited resources is just a game.

Middle Manager School B

This response was in isolation and not reflected in any other comments from the middle managers who took part of the study. However, in the questionnaire completed by the middle managers in Question 7 they were asked if their department/area had sufficient resources to teach effectively. Twenty two of the twenty seven middle managers who responded either strongly agreed (4) or agreed (18) that they had enough resources to teach effectively (Appendix 4.6).

**Constraints associated with financial decision making**

The interviews with the principals of the four schools revealed that their ability to make financial decisions were limited by two main constraints. These two constraints were to do with firstly property expenditure and the regulations concerning capital
works, and secondly the other major constraint identified was the restrictions regarding the recompense of staff through the employment collective agreement. Interestingly these two constraints were not identified by the middle managers involved in this study.

It is apparent in the interview data gathered from the principals, that the management of the school’s property took a considerable amount of time and was also a major factor impacting on the amount of resources that could be allocated to teaching and learning. The constraining influence of property on the financial decision making ability of the educational leaders appears to increase with the age of the buildings, as reflected by the words of this principal:

Every dollar you change here impacts some other part of the school. So, I am always reluctant to take money out of what could go to departments to, to deliver their curriculum because we have got to spend money on other aspects of property…So that is the biggest issue for us.

Principal B

The Ministry of Education’s method of funding for capital development also was identified as a concern, with the compliance costs associated with any building capital improvement severely impacting on what can be done to improve the school’s property, as shown through this quote:

You know they give you, in this school they give us 2.7 million dollars in operations grant and basically ask no questions. And yet to get access over five years to our 1.6 million dollars of property money you have to jump through so many hoops and have so many project managers and all sorts of things that its, I can’t see what the issue is.

Principal A

The second area which constrained the schools ability around financial decisions was around the limitations of the secondary teachers’ collective employment agreement. It was identified that the rules around staff remuneration resulted in the
school being allocated resources but then not being able to use that resource. In recognition of this, one principal says:

    …trying to manage, trying to understand, you know, where all your MU’s are going and where all the MMA’s are, and I have got to the point now where I don't use up all the MMA’s or the MU’s.

            Principal A

The staffing formula used by the Ministry to determine staffing in schools was also queried with the staffing formula having been developed last century and therefore not being able to cater for the modern school environment. It was noticeable, as mentioned earlier in this chapter that all the four schools employed more teachers than what they were funded for though the Ministry of Education. Furthermore through the semi-structured interviews it became apparent that the principals currently see that they do not have sufficient freedom as to how they can use the staffing resources. In recognition of this one principal says:

    The issue is I think, letting schools have more freedom with allocation of some of those resources come into the school through teachers’ salaries would be good.

            Principal B

Constraints on financial decision making around property and the use of teacher staffing were seen as providing a challenge for the principals of the four schools making up this study.

**Training in financial decision making**

The final key issue and challenge identified by the Principals was a lack of training for their role as financial decision makers. Each of the Principals developed their own systems and had various people to help them, ranging from Board members, Business Managers to the Budget Advisory Committee in School C. This need for support around financial decision making is shown through the following quote:
You are constantly looking for systems both within the school and outside the school that are going to be supporting you as Principal in making the right decisions on those financial sides of things.

Principal C

A lack of training was identified by two of the four principal’s and it appears that learning on the job was how they developed their financial decision making skill set. The need for a more formalised approach to this important aspect of educational leadership was asserted by one principal:

I wish I had been trained a bit more. I, well I, I didn’t do accounting, never did accounting at school, so probably a bit more training. I don’t think nobody out there, I know the first time Principals course, they do a half day or something possibly. I don’t, but there is not a lot you know unless you have done, done something, you know I think there should be more training, I think the Ministry should have a responsibility in that because it is not, it’s not just general accounting but it is pretty much school related, school specific type stuff and the Ministry doesn’t seem to do any sort of training for that, for Principals for that.

Principal A

It was noticeable that the principals identified a wider of variety of issues and challenges than the middle managers, possibly because many of these issues and challenges do not get past the principals desk.

Overview of findings

The overview of the findings has been presented in the table below; which shows the findings from both the principals and middle managers involved in this study. Based on the literature review and research questions the following table has been organised into four themes. These four themes will be discussed in Chapter Five.
### Table 4-1 Four Themes from the Findings

<table>
<thead>
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Summary

The lack of training indicated through the semi structured interviews is surprising especially as the findings show the both the importance of the principals role as financial decision makers as well as the primacy of the principals in the financial decision making process. Six key areas of financial decision making emerged from the semi structured interviews with the principals, of these five were concerned with expenditure and one with gathering more income for the school, it became apparent that the principal is not only the chief executive of the school, but also the chief fundraiser. The viewpoint of the principals varied on the strength of the link between financial decision making and student achievement, however this link was perceived as being strong by the middle managers who especially highlighted the relationship between financial decision making and the diversity of their students and equity of learning outcomes. Evaluation of financial decisions was predominantly based on making sure that the school or the departments kept within budget for both principals and middle managers respectively. Interestingly middle managers appeared to also base their evaluations on the cost and benefits of the decisions more so than the principals. The largest issue identified by both principals and middle managers was insufficient funding provided by the Ministry, although the vast majority of middle managers stated that they had enough resources to teach adequately. Issues around property, staffing and a lack of training were also identified by the educational leaders in this study despite these issues and challenges financial decision making appears largely conflict free probably due to staff participation in particularly that of middle managers in the process.
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CHAPTER FIVE DISCUSSIONS AND CONCLUSIONS

Introduction

This study has examined financial decision making in four Auckland secondary schools. The four themes that emerged from the findings are:

Theme One  The devolution of financial decision making
Theme Two  Financial decision making as an important aspect of educational leadership
Theme Three  Constraints around financial decision making
Theme Four  Limited evaluation of financial decision making

These themes will be discussed from the perspectives of the principals and then of the middle managers with reference to the relevant literature. Following this discussion, conclusions will be drawn and recommendations will be made. The research questions that guided the study will be used to generate headings. Conclusions are presented under the headings of:

1  Kinds of financial decisions and strategies used
2  Evaluation of financial decision making
3  Challenges
4  Limitations

The Devolution of Financial Decision Making

A theme that emerged from the research was the devolution of financial decision making. In this section the roles of the Board of Trustees, principals and middle managers will be discussed. The school’s strategic plan, which is approved by the Ministry of Education, influences financial decision making. In their 2007 study Hoy and Miskel found that the schools’ budgets took little account of the strategic plan and therefore were more focussed on providing for the forthcoming year with little or no reserves for future budget requirements. This contrasts with the findings of this
study which found that the school’s strategic plan provided a guideline for informing financial decisions. In the four Auckland secondary schools studied, the principals in their interviews referred regularly to the link between financial decision making and the strategic plan for the school.

With the limited money that is available for schools to use, once property and staffing issues are accounted for, Hattie (2009) has questioned the current devolved model for schools and instead asks if some financial decisions would best be done through a cluster of schools or at a regional or national level. This study confirms the existence of a devolved model of financial decision making and shows the closer the decision is made to the student, the more likely the needs of diverse student needs is taken into account. However, it would seem to make sense based on this study, that property expenditure, both operation and capital as well as fixed costs, for example electricity, be managed through a cluster of local schools.

All the principals in this study explained that their financial decision making process is a team approach, where decisions are approved in conjunction with the Board of Trustees. The report on secondary schools by Wylie (2013), stated that financial management took up a significant amount of the Board of Trustees’ time. However, this study found that the Board of Trustees involvement is perceived by the principals of the four secondary schools examined, as being limited which supports the findings of Tooley and Guthrie (2007). They found that although technically, it was the Board of Trustees who had formal responsibility, in reality it was the principal who was given the control and responsibility for the budget.

What becomes apparent through this study is the primacy of the principal’s role in financial decision making for the four schools examined. It was clear through both the semi-structured interviews (with the school leaders) and the questionnaire (used to gain the perspective of middle managers) that the principal had the dominant say in the decision making process. Each of the four schools in this study utilised a team approach in the financial decision making process, most commonly getting middle managers to make requests as well as working with the business manager of the school; however, it was the principal in each school who made the final decisions.
Newcombe and McCormick (2001), described first order financial decisions as those which establish a whole school budget with the allocation of financial resources to individual cost centres. This study found that the Board of Trustees had devolved first order financial decisions to the responsibility of the principal. Similarly Newcombe and McCormack (2001) describe second order financial decisions as referring to operational expenditure inside each cost centre. This study of four secondary schools shows that the principals devolved second order financial decisions to the middle managers.

Middle managers play an important role in second order financial decisions, as in each of the four schools it was the middle managers who made budget requests to the principal. All the middle managers who responded to the questionnaire make budget requests with the most common process being through written requests. Middle managers were intimately involved in the budget process, in particular those relating to curriculum areas.

Principals identified the role that the vision of middle managers plays in their financial decision making. Bell (2002) stated that if a school’s strategy is to have impact, then the strategy must be implemented in the classroom and in order for this to happen it is vital that staff share a common vision. It was notable therefore, that two of the four principals included the importance of middle managers’ vision concept as influencing their financial decisions. This approach addresses the concerns of Zohar (2007) who argued that strategic planning is not suited for well-trained teaching professionals and also is supported by the work of Beare et al (1989) regarding the importance of vision. Financial decisions are more likely have an impact upon the classroom when those decisions are made closer to the chalk face and when the vision of middle managers is aligned with the strategic direction of the school. Principals in this study were likely to support, through their financial decisions, the vision of middle managers.
Financial decision-making as an important aspect of educational leadership

This study of four secondary schools highlights the importance of sound financial decision making. Indeed good financial management was seen as vital for a successful school. The emphasis the four principals placed on financial decision making was surprising as although the importance of strategic resourcing was identified by Robinson, Hohepa and Lloyd (2009) as one of five dimensions of educational leadership impact, strategic resourcing was viewed as having a small effect on student learning outcomes. What has become clear through this study is that unless the financial side of the school is “… right, then all sorts of things will unravel.” (Principal A).

The importance of financial decision making to the success of the school indicates that it should be considered as a key aspect of an educational leader’s role. Odden and Archibald (2001) in a United States based study looked at spending patterns in high performing schools and typical schools, examining three categories of expenditure: instruction, student support and administration. Not surprisingly, highly effective schools spent a greater percentage of their resources on instruction than the other two broad categories, suggesting quite clearly that the way schools organise resources does matter. The New Zealand education reforms of the late 1980s saw the principal becoming the chief executive of their schools. The implication of this change has been managing the finances of the school which was identified by the principals in this study as taking a significant amount of time and the ‘overriding’ aspect of their role. The importance of the financial management of the school is in part due to the increased expectation from the community for schools to provide more for the students than what is funded simply through the Ministry of Education (Scott, 2005).

Principals in this study identified financial decision making as a major part of their responsibilities. Furthermore, with the amount of time invested it was noticeable that for the six areas identified by the principals: fixed and overhead costs, maintenance of property, staffing, funding or curriculum areas, special projects and income, only staffing and funding of curriculum areas were directly related to student achievement. When an educational leader is keeping their eye on water use in order
to identify possible leaks, which will then lead to less discretionary spending, then it is clear that the focus on teaching and learning leading to student achievement is at best distracted. This finding supports the view of Hattie (2009) who drawing on the work of Grubb (2009), explains that schools have very little discretionary money available once staffing and property expenses are allowed for and this has been supported through the information from the principals involved in this study. Furthermore, what did become apparent through this study was the amount of time and effort that principals devoted to sourcing extra income for their schools with the concern expressed that this time was decreasing the amount of time available to lead teaching and learning. The need to seek extra funding was in part due to the disconnect between the extent to which schools are funded by the Ministry of Education and the expectations placed on schools by both the government and the community: the issue being where the government sets expectations of what can be expected from a school at a far higher level than the government is prepared to fund.

The need to raise extra funds, as identified in this study, is similar to the impact of market reforms on the Australian education sector as identified by Caldwell (1999). What is not so clear is whether the search for extra income negatively impacts on the core business of the school. This issue was identified through this study, where generating income results in time being taken for the leadership of teaching and learning.

The importance of strategic resourcing was identified by Robinson, Hohepa and Lloyd (2009) as one of the five dimensions of educational leadership, with educational leadership linked to improving the learning outcomes of students. In this study the four principals had a range of views on the link between financial decision making from ‘tenuous’ to a strong link with the following question being asked: ‘Why can’t this money not be used to improve student achievement?’ This study revealed that when principals had discretionary resources the financial decisions which could be made were focussed on student achievement. The principals identified three areas where they sought to use their discretionary funds; good quality teaching and staff morale, core academics and thirdly what could be best described as supporting middle managers in achieving their vision for their department or area. These three areas match well with the work of Miles and Franks (2008), who when looking at
resourcing strategies for high performing schools identified three aspects: investing in teacher quality, a focus on core academics and creating individual attention. In particular in high performing schools the focus is on identifying the needs of students and also teachers and then working out how best to use the available resources to improve students' academic achievement. While Miles and Frank’s work focussed on high performing schools, this study was of four Auckland secondary schools, in which the principals identified three similar areas, indicating the advantages of devolving financial responsibility to schools.

The differing views of the principals on the link between financial decision making and student achievement contrasted with that of the middle managers, the vast majority seeing a direct link. Once they are allocated the financial resources, it is these middle managers who have significant independence as to how the money is spent. The New Zealand education administration reforms of the late 1980s were based on the idea that decision making is more effective when decisions are implemented by people as close as possible to those who are affected by them (Duignan & MacPherson, 1990; Gamage, Sipple, & Partridge, 1996). The information from the middle managers in this study supports this idea. It was the middle managers who most strongly identified a link between financial decisions and student achievement and furthermore saw how the allocation of resources could improve the achievement of a diverse range of students.

Middle managers in this study saw a direct link between financial decision making and teaching and learning in their budget area. Indeed, when making budget decisions twenty out of twenty four responses rated student achievement information as critical or at least very important when making financial decisions. An analysis from the middle managers comments identified three key areas that financial decisions impact on students: achievement, engagement and catering for diversity. The link between stimulating resources and engagement was explicitly commented upon and the subsequent effect this has on student achievement.

Middle managers also identified through their comments that extra resourcing is needed to cater for diversity in their areas. In particular it was noticeable that middle managers identified the need for extra resources to improve the achievement of
those who come from disadvantaged families. Overall, middle managers believed that they had enough resources to teach effectively, however they were “way under resourced for pupils at the bottom of the heap.” Middle managers clearly saw, to a much greater degree than the principals in this study, that financial decisions can benefit disadvantaged students the most.

Middle managers in this study clearly saw financial decision making as contributing more directly to the outcomes of students, indeed their second order decisions were more likely to benefit the most disadvantaged students. The linkage between financial decision making and educational leadership is stronger in middle managers as their second order decisions are focussed on the curriculum and student achievement, while principals also need to consider fixed and overhead costs, maintenance of property, staffing and income. The issue is that the current model leaves middle managers responsible for second order financial decisions, working with the limited ‘discretionary’ money that has been allocated by the principal. The funding formula used in New Zealand secondary schools based on decile ratings is one method to improve equity (Ministry of Education, 2012), however, it is apparent that for significant change for the outcomes of disadvantaged students to occur the financial decisions need to be made closer to the chalk face and more discretionary resources need to be made available for these second order decisions.

Constraints around Financial Decision Making

The education reforms in New Zealand of the late 1980s, led to the principal becoming the chief executive officer of their school, with a focus on teaching and learning (Cardno & Collett, 2003); however, this study has already shown that a significant amount of the principal’s time is spent on financial decision making. The efficacy of the financial decision making process is also hampered by constraints faced by the educational leaders. Constraints are factors that limit the discretion of educational leaders to use the resources available to improve student achievement. The main constraint around financial decision making for a principal is the lack of discretion they have with the use of the resources allocated to the school. Looking firstly from the viewpoint of the four principals this section will discuss three areas:
fixed and overhead costs, property and staffing. Following this, the constraints experienced by middle managers will be discussed.

The issue of fixed and overhead costs was commented on by the principals who were keenly aware that although there was limited room to manoeuvre every dollar saved in fixed and overhead costs allowed more expenditure in other areas. The study by Tooley and Guthrie (2007), highlighted this issue, stating that the effect of budgeting for school and student improvement is limited because once overheads were covered, there was little if any discretionary funding for school priorities. They go on to state that this results in the financial decision making process in schools being about avoiding a financial loss rather than improving student outcomes (Tooley & Guthrie, 2007). Financial decisions around fixed and overhead costs constrain the principal’s ability to make decisions around discretionary spending which could improve student achievement.

The operational costs of property management are a significant component of the fixed and overhead costs that principals have to allow for in their financial decision making. Both the operational costs and capital side of managing school property constrains the educational leader in their financial decision making. Not only do property maintenance and management costs increase over time as the buildings age, this also absorbs a significant amount of the principal’s time, thus showing that educational leadership is constrained both financially and through encroachment on the educational leader’s time. On an operational level, the maintenance and upkeep of property is a significant expense faced by the schools and was a concern for the principals interviewed. Funding of capital improvement of property was also identified as constraining educational leadership, in particular the compliance costs associated with any building capital improvement was seen to impact on improvement of the school property. These constraints on financial decisions regarding school property result in both fewer resources being spent on property improvement and less time being spent by the principals in leading teaching and learning.

When examining the deployment of teaching staff it is important that the educational leader keeps the overall vision of the school in mind and therefore the key question
is how the existing time is being used and does this meet the needs of the students (Coleman & Briggs, 2002)? Notably all four schools in this study employed more teaching staff than was funded through the Ministry of Education funding formula. Extra teacher staffing, over and above that funded by the Ministry of Education, while adding a significant cost to the school does allow the principal to exercise greater discretion in their deployment of this valuable resource. The principals in this study faced constraints as to how the teaching staff resource could be deployed. The first constraint was around the issue of minimum class size, with the number of students for the class to run varying from eight to twenty two depending on the school. With teaching staff funded by formula, any class for less than seventeen students is run at a cost to the school (Ministry of Education, 2012). A second associated constraint, identified in this study, is the deployment of specialist teachers. Once a teacher has been employed it is possible that they will remain in employment even though there may be only a few or even no students wishing to study their subjects. Therefore, classes and subjects sometimes run because that teacher needs to do something with their time, even if the classes are not economical under the staffing formula. Miles and Frank (2008), identified increasing class size as the last thing to do when schools have insufficient resources, however, this study indicates that one of the issues is that because of the staffing constraints faced by schools, small classes still run even though they no longer meet the needs of the school or students. The third constraint identified around the deployment of teaching staff was the impact of the secondary teachers’ collective agreement and rules around the remuneration of staff that resulted in the school being allocated resources, but not being able to fully utilise that resource. The deployment of teaching staff is a key financial decision that is made in schools, however, the constraints outlined above limit the discretion the principal has in fully utilising the teacher staffing resource available.

It is the middle managers making second order financial decisions who have the most discretion and who also draw a stronger link between financial decisions and student achievement, in particular catering for diversity. Surprisingly, twenty two of the twenty four middle managers believed they had enough resources to teach effectively, this despite the same middle managers identifying the following two key constraints:
• Lack of funding and increasing costs
• Students’ needs and equity.

This apparent contradiction can be explained by middle managers acknowledging that while they had the resources to teach effectively the majority of students, those with higher needs required significantly more resources. Middle managers therefore, are constrained in their financial decision making between achieving excellence outcomes and equitable outcomes. On a macro level the work of Coleman and Briggs (2002) in the United States found that from 1967 to 1987 there had been a significant increase in funding to cater for students with diverse learning needs with in 1987 over 40% of funding going on special programmes. It is apparent throughout this study that middle managers are constrained in achieving vertical equity, which is the concept that students with different learning needs should be allocated resources which reflect the differing costs of meeting those needs (Caldwell, 1999).

**Limited Evaluation of Financial Decision Making**

Evaluation is a key aspect of decision making (Hoy & Miskel 2008; Etzione, 1989; Flowers & Carpenter, 2009). The importance of the evaluation of financial decisions was commented on by Robinson et al (2009) in identifying that there needs to be more thinking and research around how budget and staff allocation are linked to student achievement. These authors stated that the mere increasing of resources will not improve the quality of teaching and learning and there needs to be a clear understanding of the purpose of the resources and how they align with improving student achievement.

Principals in this study identified three elements of evaluation of financial decision making:

• Capacity- does the school have the resources, or to put it another way, keeping to budget.
• Alignment- was the financial decision aligned to the strategic plan and the vision of the school?
• Cost/ Benefit- did the added expenditure result in the desired improvements?
Of these three elements of evaluation of their financial decision making, ensuring that the school did not overstretch their capacity was the most common factor and importantly it was only this element which was identified as having systems and structures in place to evaluate the decision.

This finding can be compared with the process discussed by Hoy and Miskel (2008) who referred to a ‘criteria of adequacy’ in which are the limits the decision maker must meet for the decision to be judged. Another way of looking at evaluation of decisions is that the general criteria should be aligned to the school’s mission. What became apparent, through the both the principals and the middle managers, was that the other two elements; alignment and cost benefit, was at the most, only a small part of the evaluation process. Evaluation which looks at the alignment with the strategic plan and aims of the school was not rated highly by educational leaders when making financial decisions. For middle managers when asked about evaluation of decisions ‘Check that your decisions align with the school’s strategic goals’ rated third out of a possible four options and significantly below ‘Make sure you keep within budget. Similarly the principals interviewed did not identify links to the strategic plan and aims of the school when evaluating financial decisions.

The study clearly shows that both principals and middle managers when evaluating financial decisions paid significant attention to ensuring that the spending of the school was within the financial capacity, what is missing from the evaluation of financial decisions in the four schools in this study are clear systems to evaluate the impact the decisions have on student achievement. The use of concrete indicators, outside of financial performance, to evaluate financial decision making was lacking in the four schools studied. A systematic analysis of existing data within the school and using these results to develop a more structured awareness of how financial decisions affect teaching, curriculum and student performance had yet to be established. The findings from this study support the work of Tooley and Guthrie (2007) where evaluation of financial decisions was based on the dollar value spent rather than linking the budgeted expenditure to student achievement. The importance of the establishment of clear, concrete indicators that will measure both the implementation of the decision and the improvements that the educational leader
hopes to generate was identified by Miles and Frank (2008) as a crucial aspect of the evaluation of financial decisions.

Conclusions

The research has been useful as it has generated further knowledge on financial decision making in secondary schools. Conclusions drawn from the findings of this study are related to the research questions formulated to guide the study, and reference is made to the implications of these conclusions for policy, practice and further research.

1 Kinds of decisions and strategies

It is clear from this study that financial decision making is a significant part of the principals' and to a lesser degree middle managers' roles. The majority of financial decisions made by the principal are not directly related to educational leadership (construed as leadership of teaching and learning) and yet this study shows that when there is discretionary money available it is used to improve student achievement. The implications of this finding for practice is that principals need to not only continue to look at how to reduce non-education related costs but also investigate methods which will reduce the time and effort spent on these issues.

Procedures for financial decision making were similar across all four schools and involved a team approach with the principal having primacy. A key finding is that middle managers who identified most clearly the link between financial decisions and student achievement especially in terms of catering for diversity. Involvement of middle management in financial decision making has a crucial impact on delivery in the classroom and the implication for practice is in the terms that principals need to be aware that the more discretionary resources available for middle managers the greater the likelihood that student achievement will be targeted. Therefore a recommendation from this study is that principals need to look at how more resources can be allocated to middle managers in order that decisions are made closer to the chalk face. A second recommendation from this study is that in order for
middle managers to be able to make the greatest impact it would be worthwhile for financial decision making training to be part of a middle management development programme with the emphasis on the impact financial decisions can have on student achievement.

A limiting factor for this training is a shortage of academic research in this area (Robinson et al 2009). The role of middle managers in addressing issues of student equity through financial decisions was identified in this study and is an area for more in-depth examination. This study identified two levels of financial decision making, first order and second order, and the principals interviewed made clear links between financial decision making and their strategic plan which supports the findings of Scott (2005). However the link between the schools strategic goals and second order decisions was not as clear. This study shows that further research needs to occur around the alignment of financial decision making by middle managers and the strategic planning of the school. In particular documentary analysis comparing budgets with strategic plans will help identify how schools can more closely align their financial planning and their educational planning.

2 Evaluation of financial decision making

The finding of this study was that the evaluation of financial decision making by educational leaders was limited. Evaluation in terms of capacity was rigorous in all four schools. However, effective evaluation of financial decision making and the impact on student achievement was absent. Educational leaders spent significant time and energy evaluating the financial outcomes of their decisions; however what is missing currently is a similar rigour to the educational outcomes of their financial decisions. The implications for practice are that schools should look at establishing clear systems that use more than just financial data to evaluate decisions. This should be tied into strategy with requests for resources needing to show how that will lead to school improvement. If clearly measureable goals are set with budget requests it will help with an evaluation of the financial decisions which does more than just measuring the financial outcomes. The decisions of middle managers in
particular will benefit from having systems in place that helps them to evaluate their financial decisions not just in terms of capacity but also in terms of alignment with the schools strategic vision and cost/benefit analysis. A recommendation from this study is that training for educational leaders includes examining the impact student outcomes when evaluating financial decisions.

3 Challenges

What became apparent through this study was that it was not necessarily more money that would make a difference to student achievement but rather the ability to use the money already allocated more effectively. The implication for principals is that the more they can reduce fixed and overhead costs and so free up discretionary resources for middle managers to use in order to address concerns of vertical equity.

In terms of policy, this study shows that when principals and middle managers have discretionary money their decisions are more likely to be focussed on lifting student achievement and improving the outcomes for the students in their school. However the current model used for funding schools has several constraints which negatively impact on the ability of schools to improve student outcomes, in particular those most disadvantaged. A recommendation from this study is that the Ministry of Education reviews policy, around the aims of developing economies of scale for fixed and overhead costs, while at the same time creating greater discretion around staffing as this will likely have benefits on student outcomes.

This research has been useful as it has shown the importance of financial decision making has for the educational leaders of the four secondary schools in the study. In terms of improving practice it is important that educational leaders, both principals and middle managers, undergo effective training in financial decision making for schools. Therefore it is the recommendation from this study that programmes for both aspiring principals, and current principals, incorporate a comprehensive coverage of financial decision making in schools. Development programmes for middle managers should also include aspects of financial decision making as this is an important aspect of the role of an educational leader.
4 Limitations

This study was designed as a qualitative research project to examine financial decision making in four secondary schools. The scale of the research was limited by both the researchers other commitments and the requirements of a Masters level thesis. The participants of the study were principals and middle managers however the study of financial decision making in secondary schools would be enhanced by the inclusion of others in the study. In particular the inclusion of Board of Trustee members and the Business Managers of each school would increase the knowledge which is available. A further limitation is the lack of documentary analysis both of school policy documents, charters and budgets. As a result these findings may be considered a small step in terms of understanding the importance of financial decision making in secondary schools.

It is hoped that this study will assist in filling some of the gaps in the literature and perhaps most importantly encourage other researchers to investigate more fully this very important area of educational leadership.
REFERENCES


Grubb, W. (2009). Correcting the money myth: rethinking school resources; while money is useful, a school's most important resource cannot be brought. *91*(4).


APPENDICES

Appendix 1.1 Teacher Student Ratios to determine Staffing

<table>
<thead>
<tr>
<th>Year of schooling</th>
<th>Māori Immersion Teacher: Student ratio</th>
<th>Non-Māori Immersion Teacher: Student ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>1:15</td>
<td>1:15</td>
</tr>
<tr>
<td>Year 2–3</td>
<td>1:18</td>
<td>1:23</td>
</tr>
<tr>
<td>Year 4–8</td>
<td>1:18</td>
<td>1:29</td>
</tr>
<tr>
<td>Year 9–10</td>
<td>1:20</td>
<td>1:23.5</td>
</tr>
<tr>
<td>Year 11</td>
<td>1:20</td>
<td>1:23</td>
</tr>
<tr>
<td>Year 12</td>
<td>1:18</td>
<td>1:18</td>
</tr>
<tr>
<td>Year 13 or above</td>
<td>1:17</td>
<td>1:17</td>
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</table>
Appendix 1.2 Per Pupil Funding

<table>
<thead>
<tr>
<th>Year level</th>
<th>Rate per student 2012 GST exclusive</th>
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<tbody>
<tr>
<td>Y1–Y6</td>
<td>$688.12</td>
</tr>
<tr>
<td>Y7–Y8</td>
<td>$771.48</td>
</tr>
<tr>
<td>Y9–Y10</td>
<td>$879.84</td>
</tr>
<tr>
<td>Y11–Y13+</td>
<td>$976.30</td>
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</tbody>
</table>
## Appendix 1.3 Targeted funding per student based on decile rating

<table>
<thead>
<tr>
<th>Decile</th>
<th>2012 GST exclusive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decile 1</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>$757.82</td>
</tr>
<tr>
<td>B</td>
<td>$704.53</td>
</tr>
<tr>
<td>C</td>
<td>$611.82</td>
</tr>
<tr>
<td>Decile 2</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>$516.87</td>
</tr>
<tr>
<td>E</td>
<td>$424.17</td>
</tr>
<tr>
<td>F</td>
<td>$351.83</td>
</tr>
<tr>
<td>Decile 3</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>$293.03</td>
</tr>
<tr>
<td>H</td>
<td>$232.01</td>
</tr>
<tr>
<td>I</td>
<td>$184.55</td>
</tr>
<tr>
<td>Decile 4</td>
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</tr>
<tr>
<td>J</td>
<td>$152.89</td>
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<tr>
<td>K</td>
<td>$125.49</td>
</tr>
<tr>
<td>L</td>
<td>$113.04</td>
</tr>
<tr>
<td>Decile 5</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>$96.84</td>
</tr>
<tr>
<td>Decile 6</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>$78.40</td>
</tr>
<tr>
<td>Decile 7</td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>$59.94</td>
</tr>
<tr>
<td>Decile 8</td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>$39.20</td>
</tr>
<tr>
<td>Decile 9</td>
<td>Q</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
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<td>Decile 10</td>
<td>Z</td>
</tr>
</tbody>
</table>
Appendix 3.1 Questionnaire

Financial Decisions and Middle Management

My name is Neil Watson and I am the Principal of Whaita High School. I am also currently enrolled in the Master of Educational Leadership and Management degree programme at Unitec Institute of Technology in Auckland, New Zealand. I would like you as a middle manager to engage in the research cycle of my Thesis which forms the final, and most substantial, portion of my programme.

Consent for participating in this study will be implied by the submission of this questionnaire.

The aim of this research is to explore Principals' and Middle Managers' views on financial decision making in our mid to low decile Auckland schools.

Please note that all ethical principles will be observed during my research. All responses will be treated in the strictest of confidence. Neither personal names, nor the name of any organisation will be used in any public reports.

Thank you for taking the time to complete this survey.

Unitec Registration Number: 2011-0211
This study has been approved by the Unitec Research Ethics Committee (date to date). If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the Unitec Secretary (ph: 09 415 1231 ext 7338). Any issues raised will be treated in confidence and investigated fully, and you will be informed of the outcome.

1. What is the name of the school you are currently working at?

2. How long have you been in your current school?
   - >3 years
   - 1-6 years
   - More than 6 years

3. How long have you been a middle manager?
   - >3 years
   - 1-6 years
   - More than 6 years

The first series of questions refer to the type of financial decisions you make while managing your departments/areas.

4. What resources do you consider make up your budget?
5. Which method best describes the process you use when making your budget requests:

- I am told by the Principal how much resources my department/area can use.
- I request how much resources I need for my department/area.
- I discuss with the Principal or senior management my budget for the upcoming year.
- Other (please specify)  

6. Once the resources has been allocated to your department/area through the budget process, how do you decide how to allocate the resources within your area?  

7. My Department/Area has sufficient resources to teach effectively  

- Strongly Agree  
- Agree  
- Disagree  
- Strongly Disagree  

Please comment  

8. Please indicate the importance you place on the following factors when making budget requests:  

<table>
<thead>
<tr>
<th>Factor</th>
<th>Critical</th>
<th>Very Important</th>
<th>Important</th>
<th>Slightly Important</th>
<th>Unimportant</th>
</tr>
</thead>
<tbody>
<tr>
<td>The amount of money your department/area spent last year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The amount of money that you think the school has available</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student achievement information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requests from individual teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The amount of money other departments/areas receive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The school’s goals</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Your department/area’s goals for the next year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Free text to comment
Financial Decisions and Middle Management

9. Which answer best sums up your view on setting the budget for the year:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensures we have enough resources to deliver the curriculum.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Takes time away from the classroom.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helps to improve teaching and learning in my departmental area.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>An administrative requirement which I have to do</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Please comment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following questions refer to the evaluation of spending decisions you make throughout the year.

10. Do you evaluate the resource allocation decisions you make each year?

- [ ] Yes
- [ ] No

11. Choose the answer that best explains why you do not evaluate resource allocation decisions.

- [ ] Too busy
- [ ] It is too hard to do
- [ ] As long as I keep under budget it is not a problem
- [ ] I do but just not in a formal manner
- [ ] Other (please specify):

12. How do you evaluate your resource allocation decisions?

- [ ] Informally
- [ ] Informally as a department/area
- [ ] Formally
- [ ] Formally as a department/area
13. To what extent when you are evaluating your resource allocation decisions do you:

- Compare the costs with the benefits
- Examine barriers to implementation
- Check that your decisions align with the school's strategic goals
- Make sure you keep within your budget

Please comment:

14. Briefly explain the relationship, if any, that you see between resource allocation decisions and student achievement.

15. What issues and or challenges do you face as a middle manager in a secondary school when making financial decisions?

16. What issues and or challenges do you think your Principal faces when making financial decisions?

17. What do you think are the main financial issues or challenges facing your school?

Thank you completing this survey.
Appendix 3.2 Semi Structured Interview Questions

Section One: What kind of financial decisions do educational leaders make in relation to resourcing teaching and learning?

1. What do you consider as financial decisions in relation to teaching and learning?
2. Describe the main funding streams for your school.
3. Describe the main expenses the school faces?
4. What resources do you consider as being part of the make up of your budget?
5. How is the budget established in your school?
6. To what extent does the school have discretion over the allocation of resources?
7. How do you determine staffing allocations?
8. How are departments or budget areas in your school funded?
9. How would you describe the relationship between financial decision making and student achievement?

Section Two: What strategies are used by educational leaders when making financial decisions?

1. How are financial priorities decided upon for your school?
2. What do you see as the key components of financial decision making?
3. How do you make choices regarding the allocation of resources?
4. What do you see as the benefits of budgeting?
5. What do you see as the limitations of budgeting?
6. To what extent are staff and middle managers in particular involved in financial decision making?
7. In what ways does your strategic plan affect your financial decision making?

Section Three: How are financial decisions evaluated by educational leaders?

1. What data do you use when evaluating financial decisions?
2. When allocating resources to an area, what outcomes do you expect to see?
3. How would describe the relationship between financial decisions and student achievement in our school? Please give examples.
4. To what extent does community perception affect your evaluation of financial decisions?

Section Four: What are the issues and challenges facing educational leaders when making financial decisions?
1 What do you see as the issues and challenges you face when making financial decisions?

2 The school’s largest and most valuable resource is its teaching staff, what issues and challenges do you see around the allocation of this resource?

Summation

1 Is there anything further you wish to add?

2 If you could sum up this session, how would you describe it succinctly? What main points would you highlight?
Appendix 3.3 Information Sheet

Title of Thesis: Financial Decision Making in Mid to Low Decile Auckland Secondary Schools

My name is Neil Watson. I am currently enrolled in the Master of Education Leadership and Management degree in the Department of Education at Unitec Institute of Technology and seek your help in meeting the requirements of research for a Thesis course which forms a substantial part of this degree.

The aim of my project is to investigate how educational leaders make and evaluate financial decisions related to teaching and learning in low to mid decile secondary schools in the Auckland region.

I request your participation in the following way:

I will be collecting data using an interview schedule and would appreciate being able to interview you at a time that is mutually suitable, the interview will take no longer than an hour. I will also be asking you to sign a consent form regarding this event.

Neither you nor your organisation will be identified in the Thesis. I will be recording your contribution and will provide a transcript (or summary of findings if appropriate) for you to check before data analysis is undertaken. I do hope that you will agree to take part and that you will find this participation of interest. If you have any queries about the project, you may contact my supervisor at Unitec Institute of Technology.

My supervisor is Professor Carol Cardno and may be contacted by email or phone.

Phone: (09) 815 4321 ext 8406 Email ccardno@unitec.ac.nz

Yours sincerely

Neil Watson

UREC REGISTRATION NUMBER: (2011-1215)

This study has been approved by the UNITEC Research Ethics Committee from (date) to (date). If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 7248). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
CONSENT FORM

RE: Master of Educational Leadership and Management

THESIS TITLE: Financial Decision Making by educational leaders in mid to low decile Auckland Secondary Schools

I have been given and have understood an explanation of this research and I have had an opportunity to ask questions and have had them answered. I understand that neither my name nor the name of my organisation will be used in any public reports. I also understand that I will be provided with a transcript for checking before data analysis is started and that I may withdraw myself or any information that has been provided for this project up to the stage when analysis of data has been completed.

I agree to take part in this project.

Signed: __________________________________________

Name: __________________________________________

Date: __________________________________________

UREC REGISTRATION NUMBER: (2011-1215)

This study has been approved by the UNITEC Research Ethics Committee from September 2011 to September 2012. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 7248). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix 4.1 Responses to Question 5 from Middle Managers

Which method best describes the process you use when making your budget requests:

- I am told by the Principal how much resources my department/area can.
- I request how much resources I need for my department/area.
- I discuss with the Principal or senior management my budget for the u.
- Other (please specify)
### Appendix 4.2 Responses to Question 9 from Middle Managers

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Rating Average</th>
<th>Rating Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helps to improve teaching and learning in my department/area.</td>
<td>55.6% (19)</td>
<td>44.7%</td>
<td>3.7%</td>
<td>0.0%</td>
<td>1.45</td>
<td>27</td>
</tr>
<tr>
<td>Ensures we have enough resources to deliver the curriculum.</td>
<td>53.3% (16)</td>
<td>44.7%</td>
<td>2.0%</td>
<td>0.0%</td>
<td>1.41</td>
<td>27</td>
</tr>
<tr>
<td>An administrative requirement which I have to do.</td>
<td>22.2% (6)</td>
<td>44.7%</td>
<td>22.2%</td>
<td>14.8%</td>
<td>3.30</td>
<td>27</td>
</tr>
<tr>
<td>Takes time away from the classroom.</td>
<td>0.0% (0)</td>
<td>7.4%</td>
<td>77.8%</td>
<td>14.8%</td>
<td>3.07</td>
<td>27</td>
</tr>
</tbody>
</table>
Appendix 4.3 Responses to Question 12 from Middle Managers

How do you evaluate your resource allocation decisions?

Appendix 4.4 Responses to Question 13 from Middle Managers

<table>
<thead>
<tr>
<th>To what extent when you are evaluating your resource allocation decisions do you:</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Rating Average</th>
<th>Rating Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make sure you keep within your budget</td>
<td>54.2% (13)</td>
<td>45.8% (11)</td>
<td>0.0% (0)</td>
<td>0.0% (0)</td>
<td>1.40</td>
<td>24</td>
</tr>
<tr>
<td>Compare the costs with the benefits</td>
<td>29.2% (7)</td>
<td>62.5% (15)</td>
<td>8.3% (2)</td>
<td>0.0% (0)</td>
<td>1.79</td>
<td>24</td>
</tr>
<tr>
<td>Check that your decisions align with the school's strategic goals</td>
<td>16.7% (4)</td>
<td>75.0% (19)</td>
<td>8.3% (2)</td>
<td>0.0% (0)</td>
<td>1.32</td>
<td>24</td>
</tr>
<tr>
<td>Examine barriers to implementation</td>
<td>20.8% (5)</td>
<td>70.4% (17)</td>
<td>8.3% (2)</td>
<td>0.0% (0)</td>
<td>1.88</td>
<td>24</td>
</tr>
</tbody>
</table>
### Appendix 4.5 Responses to Question 8 from Middle Managers

**Please indicate the importance you place on the following factors when making budget requests:**

<table>
<thead>
<tr>
<th></th>
<th>Critical</th>
<th>Very Important</th>
<th>Important</th>
<th>Slightly Important</th>
<th>Unimportant</th>
<th>Rating Average</th>
<th>Rall Coch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requests from individual teachers</td>
<td>1.8% (1)</td>
<td>23.1% (6)</td>
<td>57.7% (18)</td>
<td>15.4% (4)</td>
<td>0.0% (0)</td>
<td>2.86</td>
<td></td>
</tr>
<tr>
<td>The amount of money your department/area spent last year</td>
<td>11.1% (3)</td>
<td>26.6% (7)</td>
<td>51.3% (14)</td>
<td>3.7% (1)</td>
<td>7.4% (2)</td>
<td>2.70</td>
<td></td>
</tr>
<tr>
<td>The school's goals</td>
<td>14.8% (4)</td>
<td>40.7% (11)</td>
<td>37.0% (10)</td>
<td>7.4% (2)</td>
<td>0.0% (0)</td>
<td>1.37</td>
<td></td>
</tr>
<tr>
<td>Student achievement information</td>
<td>37.0% (10)</td>
<td>37.0% (10)</td>
<td>18.5% (5)</td>
<td>7.4% (2)</td>
<td>0.0% (0)</td>
<td>1.96</td>
<td></td>
</tr>
<tr>
<td>The amount of money other departments/areas receive</td>
<td>0.0% (0)</td>
<td>7.4% (3)</td>
<td>56.9% (7)</td>
<td>22.2% (6)</td>
<td>44.4% (12)</td>
<td>4.04</td>
<td></td>
</tr>
<tr>
<td>The amount of money that you think the school has available</td>
<td>7.4% (2)</td>
<td>29.6% (8)</td>
<td>53.3% (9)</td>
<td>18.5% (5)</td>
<td>11.1% (3)</td>
<td>2.96</td>
<td></td>
</tr>
<tr>
<td>Your department/area’s goals for the next year</td>
<td>40.7% (11)</td>
<td>40.7% (11)</td>
<td>14.8% (4)</td>
<td>3.7% (1)</td>
<td>0.0% (0)</td>
<td>1.81</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 4.6 Responses to Question 7 from Middle Managers

My Department/Area has sufficient resources to teach effectively

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree