

**THE APPLICATION OF BUDGETING PROCESS IN PUBLIC
SECONDARY SCHOOLS IN GAUTENG SOUTH REGION**

by

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DEDICATION

I would like to dedicate this work to the Almighty for the strength that he gave me through this journey. Appreciation is extended to my husband Patrick Radebe for his unwavering support through this arduous journey. Gratitude is also extended to my mother Maria Bam and my late father, John Bam (“Johny Walker”) both of whom, although they did not have a chance to get a formal education, nevertheless encouraged me in my academic endeavours. Finally, the work is dedicated to Busisiwe Precious Rosemary Radebe, who always watched unknowingly as I wrote the dissertation.

ABSTRACT

A budget is an action plan that is utilized by organisations, private or public, in order to attain their objectives. Budgets are used to ensure better financial performance for organizations. They are also used to identify financial problems and take appropriate corrective measures. Public secondary schools also prepare their budgets to plan for their income and expenditure. It is through developing their budgets that public secondary schools are able to achieve their visions and missions.

The purpose of the study is to evaluate the extent to which the budgeting process is effectively implemented in public secondary schools in the Gauteng South Region. To achieve this objective a questionnaire was developed to elicit responses from the participants in the research. The questionnaire was a closed-ended one with two sections, A and B. Section A of the questionnaire was developed to gather biographical information about the units of analysis, whereas Section B dealt with key issues pertaining to the budgeting process. The reliability of the questionnaire was tested through Cronbach's alpha coefficient.

The feedback from the questionnaire was analysed by means of Exploratory Factor Analysis where five factors were extracted and their reliability also tested. The factor loading matrix was computed to identify appropriate items for each factor. The items were analysed using frequencies in respect of each factor. Correlations analysis for the factors was conducted to determine the relationship between them.

The findings from the study indicate that: budget planning assists school managers in comparing income and expenditure; coordination of budgeting activities is a problem at schools; lack of communication stifles effective implementation of the budget; there is no effective training and development for those involved in the budgeting process; the financial targets are not set and communicated to key stakeholders; there is lack of budget control and monitoring measures of variances of the planned and actual budget is

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non-existent; educators are not offered the opportunity to participate in the budgeting process let alone have the authority to make decisions on budgetary issues for those who are involved.

The value of this research lies in setting appropriate guidelines for effective implementation of the budgeting process. Effective implementation of the budgeting process will facilitate efficient delivery of quality education to learners. The importance of the study is that it offers various types of budgets that public secondary schools can use to remain financially viable and sustainable.

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ACRONOMYS AND ABBREVIATIONS

DoE	: Department of Education
EFA	: Exploratory Factor Analysis
HOD	: Head of department
KMO	: Kaiser-Meyer Olkin
NPO	: Non-profit making organization
PCA	: Principal Component Analysis
RSA	: Republic of South Africa
SGB	: School Governing Body
SASA	: South African School Act
SSPS	: Statistical Package for Social Sciences

CHAPTER 1

INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 INTRODUCTION

A budget is an action plan through which organisations, private or public, are able to reach their strategic objectives. This view is shared by various authors in the fields of cost and management accounting, financial accounting and financial management (Allen & Myddelton 1992: 153; Needles, Powers, Mills & Anderson 1999: 903; Luecke 2002: 111). Globally, managers in organisations are required to make estimated financial statements in order to allow them to reach the strategic goals of organisations. It is through this budget that managers and subordinates are able to ensure acceptable performances in organisations (Horngren 1972: 134; Louderback & Dominiak 1982: 223). Budgets should therefore assist managers to identify problems and to take corrective actions (Hansen & Mowen 2000a: 277; Horngren, Sundem & Stratton 2002: 270).

Public secondary schools prepare their budgets to plan for the income and expenditure, based on those activities which promote the schools' mission and vision. Schools' budgets should be prepared to help with financial plans of activities scheduled to take place during the academic year in order to realise their mission and vision. A budget could assist by providing information about real and projected income and expenditure, and is used as a control mechanism to monitor whether schools are meeting their several goals and objectives and achieving acceptable performance (Dinako Management Consultants 2004: 3-4).

The basis of performance measurement of non-profit organisations is service orientation rather than profitability or return on investment as applies to profit-making organizations. Implied in the aforementioned statement is that the performance of management in non-profit organisations is not measured using profitability or return on investment. Instead, the three 'E's (economy, effectiveness and efficiency) are used to conduct performance measurement of these organisations (Hassen 2011:116).

The definitions of the three 'E's according to Hassen (2011:116,119,122) are:

Economy is "concerned with acquiring the necessary resources to carry out specific activity at the least cost" (2011:116). The objective is to minimise the cost of resources without compromising quality.

Efficiency refers to "achieving maximum output from a given amount of resources used." (2011:119). Efficiency connotes the relationship between inputs and outputs. The inputs would be resources used while outputs denote the goods produced or services rendered. The higher the ratio implies that efficiency in respect of the provision of a service or production of a good is higher.

Effectiveness is "the extent to which an activity's stated objectives are achieved. It describes the relationship between the intended impact and the actual impact of an activity" (2011:122).

1.2 PROBLEM STATEMENT

Whilst private organisations draw up budgets in order to maximise profits, non-profit organisations like public schools should utilise budgets to plan and control current expenditures (Drebin & Bierman 1978: 234; Hilton 1997: 404; Moore 1999: 239). The authors Van Rensburg, Ambe, Evangelou, Govender, Koortzen and Ziemerink (2008:254), Hilton (1997: 404), and Moore (1999: 239) state that in non-profit organisations the emphasis is only on the control of current expenditures. Budgets that focus only on control of expenditure, encourage inefficiency and waste (Drudy 2000: 571; Garrison & Noreen 2000: 504; Drudy 2001: 287). In addition, the exclusive focus on expenditure control of necessity generates a neglect of other information needs of management (Leaper 1983: 148; Weetman 1996: 553; McLeary 1999: 243). Non-profit organisations do not have financial considerations at the top of their priority list (Polimeni, Fabozzi & Adelberg 1991: 431; Hansen & Mowen 2000b: 266).

If schools can effectively implement the budgeting process, they can achieve greater success in meeting their primary aims. They can, through proper planning and controlling of budgets, improve their efficiency, economy and effectiveness (Hassen 2011:108, Petty, Keown, Scott & Martin 1982: 278; Horngren 1982: 131; Faul, Du Plessies, Niemand & Koch 2001: 354).

Secondary schools generate and obtain their income by raising funds, receiving donations, renting their facilities to the public, charging parents a fee (school fees) and receiving grants from the government. The report of auditors generally indicates that these allocated funds are not efficiently spent in various secondary schools (Dinako Management Consultants 2004: 4-5).

1.3 THE PURPOSE OF THE STUDY

1.3.1 Primary objective

The primary objective of this study is to evaluate the extent to which the budgeting process is effectively implemented in public secondary schools in Gauteng South Region, South Africa.

1.3.2 Theoretical objectives

The theoretical objectives are the following:

- Conducting a comprehensive literature review on budgeting (Chapter 2).
- Exploring the various budget options within budgeting process (Chapter 3).
- Conducting a literature study on budgeting as a motivational tool (Chapter 2).

1.3.3 Empirical objectives

The following are the cardinal empirical objectives.

To determine:

Objective 1

- the extent to which school management and subordinates review the various budget options;

Objective 2

- the extent to which school management co-ordinate the budgeting activities;

Objective 3

- the extent to which plans, policies and constraints are communicated to lower management and staff;

Objective 4

- the extent to which school managers use budgeting as a motivational tool;

Objective 5

- whether school managers take corrective actions in the event of budget deviations; and

Objective 6

- the extent to which school managers and educators receive appropriate training in financial management.

After the empirical objectives have been achieved and the research findings of the study outlined, the recommendations for the effective application of the budgeting process for public secondary schools will be made.

1.4 LITERATURE STUDY

A literature study on the budgeting process and the types of budgets was conducted. The reason for conducting a literature study is to “describe theoretical perspectives and previous research findings related to the researcher’s problem” (Leedy & Ormrod 2001:70).

The literature study includes a review of books, journals, government publications and the internet to establish a theoretical background for the study. The sources consulted served as foundation from which the researcher elaborated the key principles and the process of budgeting as well as the types of budgets. The sources have been selected because their authors are established researchers in the budgeting process. The bibliographical details of the sources are found in the Bibliography.

The following internet databases were surfed to glean information on the budgeting process and the types of budgets: Emerald, Sabinet, Nexus, and EBSCO.

1.5 RESEARCH METHODOLOGY AND DESIGN

In this section of Chapter 4, the researcher explains the target population and how the sample will be drawn. The method of data collection and analysis of such data will be explored.

1.5.1 The population description

The research will focus on public secondary schools in the Gauteng South Region. The Vaal Region comprises two education districts, namely, Sedibeng West and Sedibeng East. According to Ms E. Rust (Deputy Chief Education Specialist: Human Resource Planning and Provisioning), Sedibeng West has 45 public secondary schools while Sedibeng East has a total of 18 public secondary schools.

Each school has a finance committee consisting of 6 members, including the principal and one teacher. According to the South African Schools Act (Republic of South Africa, 1996: 32), the finance committee should comprise the principal as an *ex officio* member and an educator as the teacher component. This will result in a total of 64 finance committees (1 finance committee x 64 schools). The total population will, therefore, number 384 members (64 finance committees x 6 finance committee members).

1.5.2 Sample size

All finance committees of the various schools in the Sedibeng West and Sedibeng East education districts, will be units of analysis. The sample has been selected according to Leedy and Ormrod's guidelines (2001: 221). The authors suggest that if the population size is less than 500, all the subjects should constitute the units of analysis.

1.5.3 Data collection method

Data will be conducted by means of a survey research using a structured questionnaire.

1.5.3.1 Questionnaire

The questionnaire will be given to all members of the finance committee in the sampled schools of Sedibeng West and Sedibeng East of the Gauteng South Region in South Africa (see Appendix E).

1.6 ANALYSIS OF DATA

Percentages and correlations from the responses will be calculated for each question and/or statement, in order to arrive at possible conclusions. Exploratory factor analysis will be utilised to extract key factors that constitute the budgeting process, after which results of variables for each factor will be analysed using frequency analysis. Pearson's Correlation Coefficients will be used to establish the relationship between variables. The SPSS, version 14.0 for windows, will be used for data analysis.

1.7 DIVISION OF CHAPTERS

In this section the various chapters are indicated and the key issues for each chapter are briefly outlined. The detailed discussion of each is undertaken in each relevant chapter.

CHAPTER 1: INTRODUCTION AND BACKGROUND OF THE STUDY

The background of the study, the problem statement, the theoretical and empirical objectives are outlined in this chapter. The data collection method used in the research is briefly explained. The analysis of data by means of frequency analysis, exploratory factor analysis and correlations analysis is cited.

CHAPTER 2: THE BUDGETING PROCESS

Current literature on budgeting and the budgeting process will be discussed. Specific emphasis will be placed on the budgeting process in non-profit organisations, such as public secondary schools. The focus in the chapter is on the budgeting planning, the coordination of budget activities during the budgeting process, the communication of budget plans, the motivation of budget participants in the budgeting process, and budget control.

CHAPTER 3: THE TYPES OF BUDGETS

The various types of budgets are explored in this chapter and their relevance of application to the public secondary schools explained. These types of budgets include operational budgets, financial budgets, activity-based budgets, incremental budgets, zero-based budgets, and programme budgets.

CHAPTER 4: RESEARCH METHODOLOGY

The focus is on the research method which will be used to collect data and the method of analysis. The questionnaire was used to collect data from respondents. The data was then analysed by means of exploratory factor analysis to extract factors relevant for the budgeting process. Data relating to each extracted factor was analysed using frequency analysis. Correlation analysis was conducted through using Pearson's Correlation coefficient. Reliability was established through Cronbach's alpha coefficient. The various types of validity are explained.

CHAPTER 5: RESULTS AND FINDINGS

The results found through research methods, as discussed in Chapter 4, will be presented and analysed in this chapter. Bar charts, pie charts and tables are used to achieve this objective.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

The developments of the previous chapters are restated and the important findings and conclusions highlighted. Finally, recommendations based on the findings of the study will be made.

1.8 CONCLUSION

In this chapter, the introduction and background of the study was discussed, the problem statement for the study outlined. The important activities that constitute the budgeting process were cited. The various types of budget to be discussed were listed. The research methodology to be used in carrying out the study was briefly explained. The manner in which results are to be analysed and interpreted were briefly discussed. In the next chapter the budget process is explored.

CHAPTER 2

THE BUDGETING PROCESS OF PUBLIC SECONDARY SCHOOLS

2.1 INTRODUCTION

In Chapter 1, the background of the study and the problem statement were explained. In the same chapter, the research objectives and the methodology used in the research were briefly outlined. In this chapter the literature on the budgeting process of public secondary schools is reviewed.

All organisations, profit making or non-profit making, should acquire cash to accomplish their goals. The sources of revenue for public secondary schools are the following:

- a state subsidy
- proceeds from sale of assets
- contributions by parents of learners with special needs
- school fees, donations, trusts and bequests to the school fund
- bazaars, sales, concerts, other functions
- renting school facilities
- the sale of garden, handicraft and needlework products which the learners have produced as part of their instructional programmes and for which the requirements are purchased out of the school fund and any other income received by the public school (Circular 13/2000:2-6).

After revenue has been generated it has to be utilised to accomplish the goals of public secondary schools. The acquisition and utilisation of cash is planned or drafted in a budget. A budget helps managers with planning and implementation of financial and service delivery plans. Additionally, a budget serves to co-ordinate activities during the budgeting process, communicate plans to employees (that is educators, heads of departments, deputy- principals and principals), motivate employees, and evaluate employee's performance (Magner, Johnson, Little, Staley & Welker 2006: 409; James, 2006: 5).

Potgieter, Visser, Van der Bank, Mothata and Squelch (1997:14) are of the view that the principal is charged with overseeing the planning and controlling of the school budget. He or

she has to ensure that budgeting activities are executed by subordinates, such as the deputy-principals, heads of department and educators. Furthermore, the principal, as the chief accounting officer, oversees the activities of the school's finance committee. Each school has a finance committee consisting of six members, including the principal and one educator. According to the White Paper on public schools (RSA 1996: 32), the finance committee should comprise the principal as an *ex officio* member, an educator as the educator component and four members drawn from the biological parents or legal guardians of learners attending a specific school. It is apparent that the principal plays a central role in the planning and control activities of the budgeting process in a school.

In the current chapter, the researcher will elaborate on the budgeting process in non-profit-making organisations, specifically in public secondary schools. The budgeting process involves activities such as the budget planning, employee participation in the budgeting process, co-ordination of activities, communication, motivation and the budget control.

2.2 THE DEFINITIONS OF A BUDGET

In the literature on the budgeting process various authors define a budget in different ways. Some of the definitions of a budget that have been found in the literature review are provided below.

Du Toit, Neuland, Oost, and Begemann (2001: 70) define a budget as a “detailed plan which sets out, in money terms, the plans for income and expenditure in respect of a future period of a time.”

According to Luecke (2002: 111) a budget is a “translation of strategic plans into measurable quantities that express the expected resources required and anticipated returns over a certain period.”

Furthermore, Magner *et al.* (2006: 409) consider a budget to be “a plan of action that forecasts future transactions, activities, and events in financial and non-financial terms.”

From the above definitions, one can come to a conclusion that managers in their budgeting activities need to start by setting goals for the whole organisation, and plans to achieve the set goals. Furthermore, planning for the short-term and long-term period for the organisation is vital. A budget can help to determine variances that may occur by comparing the actual and the budgeted results. After variances have been determined, corrective actions should be taken. To adhere to the definition of a budget, the budgeting process should consist of the activities discussed in the paragraph to follow.

2.3 THE BUDGETING PROCESS

Before a discussion on the budgeting activities it is imperative to clarify concepts such as a public secondary school, a principal, a deputy - principal, a head of department, an educator, learner and a parent.

The South African Schools Act, no. 84 of 1996 defines these concepts as follows:

Public school is defined as “an ordinary public school.”

Principal means “an educator appointed or acting as the head of a school.”

Deputy–principal is an educator appointed or acting as the assistant head of the school
(Author: self)

An educator is defined in the Educators Employment Act, 1994 (Proclamation no. 138 of 1994) as “a member of staff who is employed at a school.”

Schedule 2 (Amendment of Educators’ Employment Act, 1994, by section 63) definition of an “educator” means any person who teaches, educates or trains other persons or provide professional therapy, educational services including professional therapy at any school, technical college or college of educational institution or assists in rendering professional services or performs educational management services or auxiliary services provided by or in a department of education whose employment appointment and term and conditions of employment are regulated by this Act.

Head of Department means “the head of the subject discipline within the school.”

Learner means “any person receiving education or obliged to receive education in terms of this Act.”

A parent is defined as the “parent or guardian of a learner, the person legally entitled to custody of a learner or the person who undertakes to fulfil the obligations of a person referred to in the paragraph towards the learner’s education at school.”

Various authors, Anthony and Herzlinger (1980: 31); McLeary (1999: 464) and Proctor (2002: 283 -284) concur that the important activities in the budgeting process of profit-making organisation and non-profit making organisations such as schools are illustrated in Figure 1.

Figure 1 illustrates the budgeting activities that have to be undertaken in order to ensure an efficient and effective budgeting process. These activities should follow one after the other as indicated in Figure 1. This implies that the budget activities are not interchangeable. The following discussion revolves around the budgeting activities.

2.3.1 Activity 1: Budget planning and setting objectives

Brimson (1996:83), Drudy (2001: 279) and Magner *et al.* (2006: 409) define planning as “the design of a desired future and an effective way of bringing it about”. Planning is an effective tool for good management in all types of organisations.

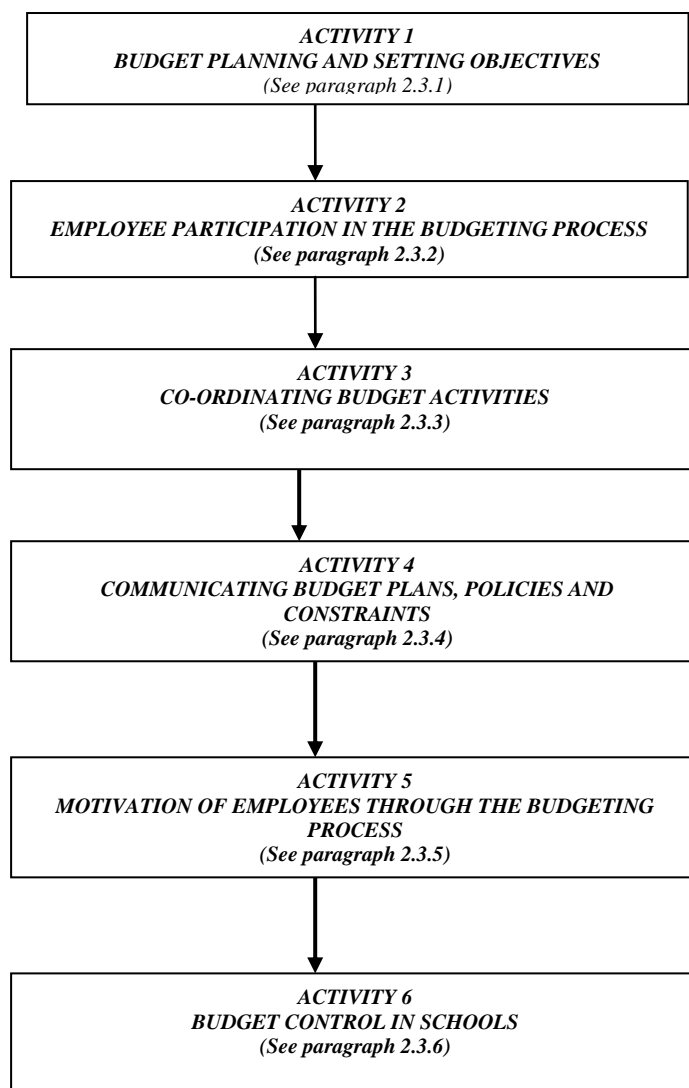


Figure 1: Activities in the budgeting process

This also applies to schools. Schools need to prepare for both long-term and short-term plans. Robbins and Coulter (1999: 212; 2005: 162) assert that long-term plans cover a period beyond three years whereas short-term plans, also known as operational plans, cover short time periods – monthly, weekly, and daily plans. Lucey (2002: 385) and Weetman (2003: 633) further express the view that in the planning process managers in conjunction with subordinates should set budget objectives. In schools this task will be accomplished by the principal, deputy-principal, head of department, and includes educators. The next paragraph focuses on the setting of budget objectives.

Formulating a mission statement and corporate objectives is an essential first activity in the budgeting planning process. The formulation of a mission statement and corporate objectives requires long range planning by senior managers (Horngren 1978: 148-149; 1982: 132; Allen & Myddelton 1992: 153; Weetman 1996: 554; 2003: 625).

In this respect, Moore (1999: 9) warns that if top management does not outline a school's goal as well as objectives and develop a business plan it will be difficult for middle and lower levels of managers to achieve goals and develop a budget. Once the service and corporate objectives have been spelt out, senior managers should decide exactly how they will achieve these objectives. The term strategy is used to describe the course of action to be taken in achieving the set objective (Ward 2000: 231; Proctor 2002: 277; Fruitticher, Stroud, Laster & Yakhou 2005: 177).

With regard to goal setting, Weetman (1996: 554; 2003: 625) hints that goals should be as comprehensive as the strategic mission of the organisation. Setting out the strategy will involve all senior managers from the various functions. These senior managers should work together in the interest of the company as a whole. This requires communication and co-ordination.

The preparation of a budget should be structured so that there is a reasonably high probability of successful attainment of objectives. When challenging but attainable objectives are achieved, feelings of success, confidence, and satisfaction are produced and aspiration levels are raised. If objectives are not accomplished, the reasons for this failure should be clear (Hammer, Carter & Usry 1994: 399-400; Magner *et al.* 2006: 410).

It is necessary to define the objectives of the budgetary system to avoid a conflict of interest between financial managers on the one hand and non-financial or operating managers on the other. All too often budgets are seen by line managers as a "battle of wills and they attempt to achieve the maximum expenditure possible that they can get away with or achieve the minimum result that will keep the financial managers happy" (Luecke 2002: 112; Weetman 2003: 629; Vigario 2005: 230). Once senior managers have set the objectives employees are invited to participate in the budgeting process.

The vision and mission has to be developed as well in public schools. This process requires the involvement of the school community (which is educators, non-educators, parents, police, health service centres, local businesses etc.).

Therefore the principal needs to communicate the school's objectives, plans as well as goals to deputy-principals, HODs, educators, parents as well as non-educators. Each HOD's budget

planning should be planned with the aim of achieving not only the department's objectives and goals; it should be to achieve the school's as a whole.

2.3.2 Activity 2: Employee participation in the budgeting process

Activity 2 in the budgeting process is that of employee participation in the budgeting process. This process is twofold. On the one hand employees take part in reviewing budget options (see paragraph 2.3.2.1). On the other hand employees play a role in deciding on those budget options (see paragraphs 2.3.2.2). For employees to be involved in reviewing and deciding on budget options, empowerment remains an absolute prerequisite (see paragraph 2.3.2.3) (Lucey 2002: 385; Weetman 2003: 633).

2.3.2.1 Employee participation in reviewing budget options

A participative approach to the budgeting process, known as self-imposed budgeting, allows the involvement of lower level managers, like HODs, and sports team coaches in developing a budget. The budget will be initiated in each of the departments or areas, but each budget may have an impact on other line managers (Weetman 1996: 560-561; 2003: 630, Allen & Myddelton 1992: 157; Drudy 2001: 288). Garrison and Noreen (2000: 382; 2003:378) confirm that in all essence, all levels of an organisation should work together to produce a budget.

Since principals and deputy-principals, as top management, are generally not involved with detailed day-to-day operations, it should rely on HODs, subjects heads, educators and sport team coaches to provide detailed budget information. Top management has a perspective in the school ecosystem as a whole that is vital in making broad policy decisions on budgets. Each level of responsibility in schools should contribute in the way that it best can, and in a co-operative manner to develop an integrated budget document. To be successful, a self-imposed approach to setting a budget requires that all lower level manager like HODs, subject heads, educators and sport team coaches understand and agree with the organisation's strategy. Otherwise the budget proposed by lower level of management will lack coherent direction (Goodwin & de Gouw 1997: 180; Garrison & Noreen 2000: 382). This concept of self-imposed budgeting is probed further below.

2.3.2.1.1 Concept clarification: self-imposed budgeting

Self-imposed budgeting is an approach through which managers prepare their own budget estimates and is considered to be the most effective method of budget preparation. A self-imposed or participative budget is one that is prepared with the full co-operation and participation of lower level managers. Budget estimates prepared by lower-level managers cannot necessarily be accepted without question by higher levels of management. If no system of checks and balances is present, self-imposed budget may be too loose and allow too much 'budgetary slack', resulting in inefficiency and fruitless use of resources. Therefore, before a budget is approved by SGB, it must be presented to a general meeting of parents convened on at least 30 days' notice, for consideration and approval by a majority of parents present and voting. If changes from the original budget seem desirable, the items in question are discussed and modified as necessary by mutual consent (Garrison & Noreen 2000: 382; 2003: 377; Yuen 2004: 521;2006:152).

A participative approach to budgeting requires all key stakeholders, such as parents, through the SGB, principals, deputy-principals, HODs, subject heads, educators and sports team coaches to be involved in negotiations. A negotiation stage will usually involve the budget committee or committees in discussion with HODs, subject heads and sport team coaches (see paragraph 2.3.4). The negotiation process will be a communication exercise to ensure that each participant understands the budgeting process. More often it will be an opportunity for fine-tuning the plans so that the benefits to the school as a whole are maximized (Garrison & Noreen 2000: 382; 2003: 377-378).

Goodwin and de Gouw (1997:180), and Subramaniam and Mia (2001:19), point out that participation by employees in the budgetary process has received considerable attention in the budget literature. For budgetary participation to occur all employees must become actively involved in the setting of the budget goals by exchanging information and influencing the outcomes. First, there is the extent that communication occurs within the budgetary process and, second, the extent that a participant feels that he/she influences the budget finally allocated. The advantages of self-imposed budgeting are further discussed in the next section.

2.3.2.1.2 Advantages of self-imposed budgeting

Those individuals (parents through the SGB, principals, deputy-principals, HODs, subject heads, educators and sport team coaches) who participate in the budgeting process will gain a sense of ownership of the process. They will experience an increase in self-esteem through having a defined role in the process and will achieve a sense of personal fulfilment through implementation of the budget plans (Weetman 1996: 567; 2003: 638; Llewellyn 1998:293).

Consistent with expectation, the impact of the budgeting process on a group of people may be quite different from the impact on the individual within the group. Participation by individuals will lead to greater group interaction, which will be a good practice if the individuals value their membership of the group and see the goals of the group as being collective targets that they all regard as desirable. Such a group will show cohesion which will be increased by participation in the budgeting process (Weetman 1996: 568; 2003: 638, Frucot & White 2006: 193 & Yuen 2006: 152). There are disadvantages of using self-imposed budgeting, which are discussed in the next section.

2.3.2.1.3 Disadvantages of self-imposed budgeting

Henke and Spoede (1991: 546) are of the view that without proper implementation by and participation of HODs, subject heads and sports team coaches there can be misconceptions, resentments, misinterpretations, speculations and ‘game playing’ by these participants. The budgeting process may also inhibit individual creativity, engender undesirable pressures if goals are unrealistically high, and weaken general morale if improperly implemented.

However, Weetman (1996: 554; 2003: 625), Allen and Myddelton (1992: 153), and Horngren, Sundem and Stratton (2002: 272) argue that the aforementioned problems may be minimised by involving all levels of personnel in the preparation of a budget, developing a positive and enthusiastic attitude among management personnel towards a budget, communicating the purposes and uses of a budget to all personnel and incorporating realistic and achievable goals into a budgetary plan. A budgetary plan must be the results of co-ordinated actions amongst an organisation’s personnel. Co-ordination could be successfully implemented by utilising the budget committee.

There is a possibility that participants in the self-imposed budgeting may not be cohesive. In cases where participants do not have cohesion or the majority pressure is towards lower targets, the performance of the individual may be reduced by participation within the group. It may therefore be important for a principal, wishing to make effective use of budgeting process, to have careful regard for the composition of groups within a school (Weetman 1996: 568; 2003: 638, Frucot & White 2006: 193).

2.3.2.1.4 Budget committee

In a manufacturing entity, the budgeting process is directed by a budget committee which is composed of the key senior executives, sales and/or marketing manager, production manager, chief engineer, treasurer and controller (Wright 1994: 459); Lucey 1996: 390; 2002: 387; Hilton, Maher & Selto 2006: 617-618).

In relation to schools, each school's finance committee consists of 6 members. According to the White Paper on public schools (RSA 1996: 32 as amended), the budget committee should consist of: the principal as an *ex officio* member and acting as the Accounting Officer, the chairperson of the SGB, the Deputy-Principal, the treasurer (who could be a parent or an educator), an educator and the clerk (acting as the Finance Officer) (see Figure 2).

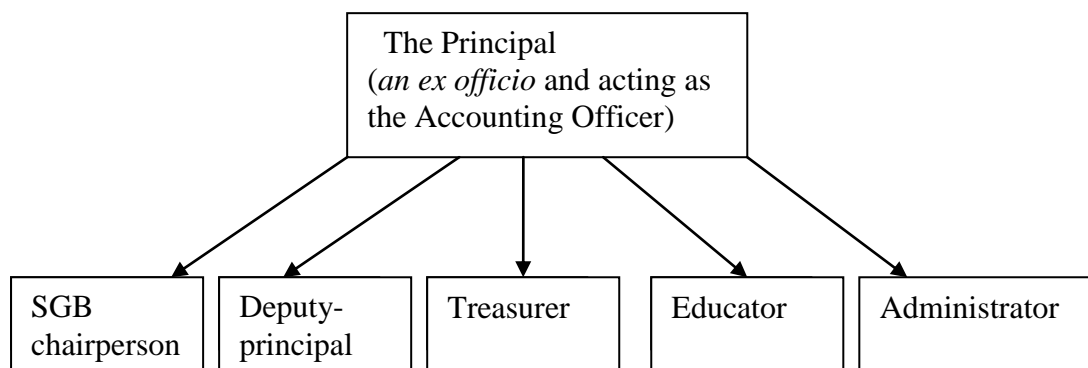


Figure2: Members of the finance committee

According to Horngren (1982: 154) the budget committee generally has an advisory role. However, its advice is very influential. Initially, the committee usually assembles and reviews underlying economic conditions and assumptions in relation to the ensuing budget period. It reviews departmental budgets and makes recommendations. Eventually, it submits a variety of recommendations for top management to finally make a decision. In schools the

finance committee plays an advisory role in the budgeting process. However, the proposed budget will only be approved after it has been presented at a parents' meeting, and accepted by a majority of parents.

The budget committee receives the initial budget from heads of departments, subject heads, sports team coaches and educators in secondary schools. If the initial budget is based on unrealistic targets, then all parties will be asked to modify the budget within the school's overall targets. There is a motivational aspect of budget preparations, in respect of which managers should motivate for their required budget allocations. Therefore, it is important that the heads of departments, subject heads, sports team coaches and educators understand the importance of reviewing the budget. Budget negotiations can be a delicate process in this regard (Weetman 1996: 558; 2003: 628; Drudy 2001: 286; Hilton *et al.* 2006: 617-618). When the reviews of the budget have been done the budget committee then generates a master budget.

2.3.2.1.5 Generating a master budget

After various budgets have been thoroughly reviewed, they are combined into a final budget that is a master budget, which is submitted to top management for approval. The performances of these functional units are a powerful force in co-ordinating budget activities of organisations (Hammer *et al.* 1994: 399; Lucey 1996: 390; 2002: 387; Drudy 1998: 349).

Needles, Powers, Mills and Anderson (1999: 924) explain that when the master budget is completed, management must decide whether to accept the proposed master budget and the planned operating results it presents or change the plans and revise the budget. Once the master budget has been accepted it must be implemented. The authority to give final approval to the master budget usually belongs to the board of directors or the board of trustees in many non-profit making organisations (Hammer *et al.* 1994: 399).

In schools the School Governing Body must first refer the budget to a general meeting of parents at the school. The majority of parents in a meeting should approve the budget through voting (Potgieter *et al.* 1997: 49). The SGBs' and the parents' functions are to decide on general policies, requests, receive and review individual budget estimates, approve budgets and later revisions, receive and analyse budget reports and recommend actions designed to

improve efficiency where necessary (Drebin & Bierman 1978: 65; Hammer *et al.* 1994: 399; Hilton 1997: 424).

2.3.2.2 Employee involvement in deciding on budget options

Weetman (1996: 554) points out that decision-making is central to the management of any type of entity irrespective of whether it is a non-profit making organisation and a profit-making organisation. A manager of a non-profit making organisation and a profit-making organisation will make decisions on resource allocations so as to be economic, efficient and effective in its use of finances. All organisations, whether private or public, take decisions which have financial implications. Decisions will be made about the allocation of resources, the rendering of services, and activities to be undertaken. These decisions include long-term and short-term investment plans. Most decisions will at some stage involve consideration of financial matters, particularly costs.

In a related observation Newcombe, McCormick and Sharpe (1997: 94-95), and Yuen (2004: 524), suggest that the devolution of financial management to the school site recognizes the importance of participative decision making in the budgeting process. The level of participation in financial decision making during the budgeting process needs to be extended to the classroom educator, otherwise school site financial management could be just another form of centralised control, with the principal at the centre. To counteract these circumstances, principals and other lower-level managers should have a thorough understanding of the complete financial decision-making process and, through their behaviour and comment, help to convey to all employees the integrity and effectiveness of the process.

Participation in budgeting at all levels in the process, from a team member (educator and parent component of the budget committee) to a manager (principal), develops a sense of commitment, cohesion and confidence among employees. If the process is perceived by educators to be effective, open and fair, it will help to allay the suspicions and uncertainties commonly associated with financial decision-making. If educators are involved in all forms of financial decision-making there would be improved educational outcomes (Sallis 1996: 89; Newcombe *et al.* 1997: 100; Barsky & Bremser 1999: 3).

In similar vein, Newcombe *et al.* (1997: 94-95) and Weetman (2003: 631) propose that educators should be encouraged to be involved in various financial issues ranging from income generation to marketing and long-term financial planning. Despite this wide range of apparent participation, in many cases educators find that, while these budget committees create an illusion of involvement, they can actually retard any real educator influence. While some educators agree that, in some cases, the potential benefits of participation may outweigh the costs of their involvement, they are of the opinion that there is little possibility of these potential benefits being actually achieved, unless their level of participation is matched with similar level of influence over the final decision outcomes. This implies that educators are invited to participate in income generation but have little say, if any, on the expenditure of the income generated (Newcombe *et al.* 1997: 94-95).

Where participative decision-making is based on full disclosure of information and absence of bias there could be increased trust in the school's administration. However, in cases where misrepresentation of information is used to manipulate decisions or there is an underlying authoritarian approach by principals, resentment, anger and total lack of confidence in the administration often develop. Any misrepresentation or failure to disclose financial information places educators in a frustrating position of being involved in the decision-making process but with no real influence over decision outcomes (Luecke 2002: 112-13; Magner *et al.* 2006: 411).

Newcombe *et al.* (1997:100) confirm that participants in the process need to be acutely aware of their roles and responsibilities. The principal's main role is to ensure that decisions are always made within the broad framework of the school's needs that are established in the mission statement and the policies of any external authority. The principal should try to minimise any self-serving behaviour from him- or herself and other lower level managers, to obviate imbalances in the allocation of resources and to facilitate cordial relations within the group.

Educators' participation in the financial decision-making ushered educators into "a new regime of uncertainty" (Newcombe *et al.* 1997: 94-95; Lucey 2002: 396). Financial management in schools is a new experience for educators. Educators doubted their own abilities, knowledge and skills in the area of financial management. The management of money and control associated with it may create an environment in which the degree of

competence, integrity, fairness and openness of people and process are inevitably scrutinized. Hence educators should be empowered in the area of financial management (Hornngren, Bhimani, Datar & Foster 2002: 284-285).

2.3.2.3 Employee empowerment in the budgeting process

The focus in this section of the literature review is on clarifying the concept of “employee empowerment”, advantages of employee empowerment and disadvantages of ineffective empowerment in the area of financial management. Equally important is an elaboration of how employee empowerment can motivate employees to participate in the budgeting process. The employee in this section refers to educators, heads of departments, deputy principals and principals.

2.3.2.3.1 Concept clarification: employee empowerment in the budgeting process

Scott (2001: 255) reports that fully devolved budgets require managers to have financial skills which are not always available, especially in schools. For this reason managers must undergo some skills development in financial management so that they are fully conversant with the relevance and importance of budgeting and budgetary control system and the part that the managers, or principals in the case of schools, are expected to play in them. Therefore budget delegation places departmental managers or heads of departments, in the case of schools, in an invidious position, expecting them to develop and support employees.

2.3.2.3.2 Advantages of empowerment of employees in the budgeting process

Empowering all managers, senior, middle, and line managers, in the budgeting process has the following potential benefits: it helps managers to take more control over their jobs and working environment, and enhances the contribution they make as individuals and members of a team. The contribution that managers make in the budgeting process requires schools to have a clear concept of what they mean by empowering, and articulate it clearly. Empowering implies assigning authority and responsibility of making decisions in respect of budgeting to heads of departments and deputy-principals and key members of the SGB. Empowerment further connotes that all participants in the budgeting process should be trained in financial management. To do the empowering activity requires schools to be

realistic about the time and effort that empowering activities will require (McLeary 1999: 478-479; Scott 2001: 255; Yuen 2004: 524).

2.3.2.3.3 Disadvantages of lack of empowerment of employees in the budgeting process

Empowering managers within the organisation brings together the authority and the responsibility for decision making, and closes decision loop. All too often managers are given the responsibility for target achievement and efficiency gains, without the authority to make changes which will affect operations. The lack of empowerment on the side of managers and teams will make them not accountable for their decisions (Scott 2001: 255; Eldenburg & Wolcott 2005: 383; De Waal 2005: 57-59).

2.3.2.3.4 Empowerment of employees in the budgeting process as a motivational tool

Scott (2001: 255) and Ingram, Albright and Hill (2001: 221) identify various levels of empowerment. The first level is job involvement at which jobs are redesigned so that employees use a variety of skills. The second level is when employees believe their tasks are significant, whilst the third level occurs when employees consider themselves to have the freedom in deciding how to do the work. At the fourth level employees get feedback on their involvement and finally when they handle a whole, identifiable piece of work.

Through an increase in the amount of control over their work, individuals can raise their level of empowerment. This implies that managers and teams who are responsible for the planning and allocation of their budget will be empowered and have increased ownership of the programmes and targets they are responsible for. This empowerment provides managers and employees with the authority to allocate resources and shape the curriculum through these resources. Empowerment relates to schools' power and the authority to make decisions regarding schools' operations (Scott 2001: 255; Ingram, Albright & Hill 2001: 221; Eldenburg & Wolcott 2005: 383).

2.3.2.4 Conclusion on employee participation in the budgeting process

In conclusion, all levels of managers, that is principals, deputy-principals, heads of departments, educators and learner representatives, as members of School Governing Body

(SGB), should work together to produce a budget in schools. This takes the form of proposals and counter-proposals often characterised by tough negotiations between principals, deputy-principals, heads of departments and educators and learner representatives as well as SGBs. Synergy during the review of budget options by these parties is only possible if all managers, educators and learner representatives understand and agree on the school's vision, mission, long-term and short-term goals. In the same way that lower levels of managers, educators and learner representatives are invited to review budget options they should have the decision-making authority to select the best budget option or best role in the interest of the school, the learners and the community. By implication, the lower levels of managers, educators and learner representatives should be involved in deciding about the generation of income and its expenditure. From the literature review all evidence points to the fact that the involvement of superiors and subordinates including learner representative in the budgeting process creates cohesion among colleagues and yields increased levels of motivation.

Participation of superiors and subordinates as well as learner representatives in the budgeting process ought to be co-ordinated effectively in order to produce a budget. This co-ordination activity is discussed in the next paragraph.

2.3.3 Activity 3: Co-ordinating budget activities in a school system

Co-ordination is the establishment of the framework in which budget activities are to be performed. Co-ordination refers to the systematisation of interdependent parts into one unit. Co-ordination requires bringing the many functional units of a school into a co-ordinated structure and assigning authority and responsibility to individuals (Hammer *et al.* 1994: 4; Sollenberger & Schneider 1996: 285; Vigario 2005: 230; Llewelyn 1998: 293).

The implementation of budget structures and processes should be based on integrity, openness, consistency, fairness and a professional approach. These processes involve financial management issues which every stakeholder should have knowledge about. Knowledge about financial management issues of a school should enable every participant in the budgeting process to pitch their level of involvement in the budgeting process in a school. The district offices of the Department of Education arrange for workshops aimed at improving financial skills of stakeholders (Newcombe *et al.* 1997: 99).

Executives, principals in the case of schools, are forced to take into consideration the relationships among individual operations, and a school as a whole. The budget co-ordination activity helps to restrain the empire building efforts of executives or principals (Anthony & Herzlinger 1980: Horngren 1982: 133; Wright 1994: 458). In a school situation co-ordination compels principals to examine the relationship between various departments executing curricular and extra-curricular activities, and in the process, to identify and resolve conflicts (Drudy 2001: 284).

Co-ordination of budget activities is an effort to motivate employees to work together for the good of the school. Because of the different attitudes to work and ambitions of people, organisational structure is developed through instructions, experimentation, and patience (Hammer *et al.* 1994: 4; Zeldman 1999: 15-35; Vigario 2005: 230)

To conclude, co-ordination of budget activities creates a synergy among parties involved in the budgeting process in a school system. Without co-ordination role-players would be involved in disparate activities which will reduce the whole budgeting process to disintegration. To ensure co-ordination is effective, communication of budget plans, policies and constraints to parties involved in the budgeting process is indispensable. The paragraph below focuses on communication of budget plans, budget policies and budget constraints.

2.3.4 Activity 4: Communication of budget plans, budget policies and budget constraints

In a school environment as well as companies, managers at all levels of the organisation are engaged in an ongoing communication. Managers are expected to post information about the direction of leading and lagging indicators. Educators use this information to take necessary actions to improve performance. Educators are also encouraged to contact principals, deputy-principals and heads of departments and comment on performance trends (Barsky & Bremser 1999: 12, Needles *et al.* 1999: 906).

Communication of budget plans and policies by principals and SGB to lower levels of managers and educators is imperative. The level of communication process and participation in financial decision-making process needs to be extended to the classroom. In an attempt to establish a high level of involvement in decision-making, budget goals, plans and policies

should be communicated to lower levels of managers and educators. However, care should be taken not to distract educators from their primary instructional role of educative teaching (Goodwin & de Gouw 1997: 180; Hansen & Mowen 2000a: 268).

Effective communication requires an organisation structure which reflects the responsibility and the authority of management. Communication should cascade down through this organisational structure and the manner of communication can have regard for motivation of those who are part of the control process. For control to be effective a reverse form of communication upwards should be considered so that management learns of the concerns of their employees and other relevant stakeholders. Motivation, expectations and personal relationships are all matters to be considered and to be harnessed effectively by the process of control (Weetman 1996: 559-565; 2003: 629; Barsky & Bremser 1999: 11; McLeary 1999: 465).

The South African Schools Act requires that the budget documents should be made available during the preparation of a budget (RSA 1996). Management should make sure that these documents are circulated within the organisation at intervals throughout the year. These documents should contain clear narrative description of budget objectives, plans and policies of the organisations, supplemented by quantified illustrations of the impact on the organisation as a whole and on the major divisions (Weetman 1996: 559; 2003: 629; Luecke 2002: 113). Weetman (1996: 559; 2003: 629) further states that regular circulation of documents will make the communication process effective by allowing comments from employees. This will ensure that those responsible for the preparation of budgets will have the fullest understanding of the basis for the budgeting process.

On the whole, the communication process is a vital part of creating a sense of teamwork and ensuring that all the key players understand the role they play in achieving budget targets. The stakeholders who prepare the budget must also be motivated to want to achieve the budget targets (Weetman 1996: 439; 2003: 454).

2.3.5 Activity 5: Motivation of employees through the budgeting process

In schools, principals and the SGB initiate the budget process by issuing broad guidelines in terms of an overall target of generation and application of funds. Lower-level managers like

deputy-principals and heads of departments are directed to prepare budgets that meet the planned targets. The difficulty is that the target set by top managers may be unrealistically high or may allow too much slack. If targets are too high and deputy-principals, heads of departments and educators know they are unrealistic, motivation will decline. If targets allow too much slack, waste will occur. For this reason principals should set budget targets in conjunction with heads of department and deputy-principals (Lucey 1996: 389; Garrison & Noreen 2000: 382-383; Horngren *et al.* 2002: 284). If there is a joint setting of budget targets by all levels of managers, managerial behaviour can be influenced and managers can be motivated to perform in line with school's objectives (Drudy 2001: 284-285; 2002: 347).

The attainment of the long-term and short-term budget objectives is dependent on educator's understanding of the school's goals, acting in such a manner as to meet them. Educators in the school environment refer to members of staff who are employed by the school. Sometimes principals will attempt to coerce heads of departments and educators to achieve budgets by either offering a bonus or threatening to take actions if budget objectives are not met. How the educators react is of vital importance, as lack of consultation may lead to dissatisfaction and demotivation (Weetman 1996: 439; McLeary 1999: 465; Vigario 2005: 232).

An individual manager's attitude towards the budget will depend on the existing good relationship within the management group. If properly guided by the school's plan, with an opportunity for increased compensation and greater satisfaction, the middle and lower management can achieve remarkable results (Horngren 1982: 147; Hammer *et al.* 1994: 401; Faul, Du Plessis, Van Vuuren, Niemand & Koch. 1997: 430).

Rather than being used as a pressure device, the budget should be used as a positive instrument or motivating tool to assist in establishing goals, in measuring operating results, and disclosing areas that are in need of extra effort or attention. Any misgiving that educators have about a budget programme can be overcome by meaningful involvement of managers at all levels and by proper use of the programme over a period of time (Garrison & Noreen 2000: 384; 2003: 379; Vigario 2005: 233).

Garrison and Noreen (2000: 384; 2003: 379), as well as Vigario (2005: 233), assert that if a budget is to be successful, it must have the complete acceptance and support of the person

who occupies the key management position. If lower or middle management personnel sense that top management is negative about budgeting or if top management simply tolerates budgeting as a necessary evil, then their own attitude will reflect a similar lack of enthusiasm. Budgeting is a challenging exercise, and if top management is not enthusiastic about and committed to the budgeting process, it is unlikely that anyone else in a school system will be either (Anthony & Hezlinger 1980: 45-46).

McEntegart (1980: 133) and, Garrison and Noreen (2000: 384; 2003: 379) suggest that management must keep in mind that the human dimension in budgeting is of key importance. Management should remember that the purpose of a budget is to motivate participants in the budgeting process and to co-ordinate their efforts. Moreover, the effective application of the budgeting process will facilitate the achievement of instructional goals by educators in the sense that adequate funds shall have been allocated for teaching aids and staff development. Pre-occupation with rand and cents in the budget, or being rigid and inflexible in budget administration, can only lead to frustration of these purposes. The final step in the budgeting process, after the implementation of the budget, is the budget control throughout the reporting period that matches the specific period.

2.3.6 Activity 6: The budget control in a school system

This is the last activity for the budgeting process as indicated in Figure 1. Authors, such as Louderback and Dominiak (1982: 199), Hansen and Mowen (2000b: 267-276), and Dyson (2004: 378) describe the budget control process as receiving feedback on actual performance, and taking corrective actions whenever actual performance deviates significantly from planned performance. Thus budgets can be used to compare actual outcome with planned outcomes, and they can steer operations back on course if necessary.

A budgeting control system offers the following benefits:

- It defines the objectives of a school as a whole in financial terms.
- It provides yardsticks by which to measure efficiency for different parts of the school.
- It reveals the extent by which actual results differ from defined objectives and it provides a guide for corrective actions.

- It facilitates centralised control with delegated responsibility (Leaper 1983: 147; Hammer *et al.* 1994: 4; Ward 2000: 230; Dyson 2004: 378; Nir & Miran 2006:117).

The next section entails a budget as an instrument to measure performance in a school as a non-profit organisation (NPO).

2.3.6.1 A budget as an instrument for performance measurement in NPO

The school, as a non-profit organisation, should use a budget as an instrument to measure performance. The task of measuring performance in schools should be an internal process which seeks to improve financial accountability and sustainability. In this section, the important issues under discussion are an explanation of the goals of performance measurement in NPOs such as schools, the concept of performance measurement, the characteristics of performance measurement in NPOs, the advantages of using a budget as an instrument for performance measurement, the disadvantages of using historical data in performance measurement, the strategies to performance measurement in NPOs and the performance measurement as a motivational tool in NPOs.

2.3.6.1.1 Performance goals in NPOs

The goal of an NPO is something other than earning profits. However, NPOs achieve their goals by paying for cash on required items or services, and also on an accrual basis where revenue and expenses are compared to determine the financial viability of the NPO. Thus, even if the output in such an organisation could be measured in monetary terms, the difference between outputs and inputs would not measure how well the organisation achieves its goals. The problem is further complicated by the fact that many NPOs cannot measure their real output in monetary terms. Therefore it should be noted that the measurement problem in NPOs relates to outputs, not inputs (Anthony & Hezlinger 1980: 39).

Anthony and Hezlinger (1980: 39) further argue that the goal in an NPO is not to widen the difference between outputs and inputs. Rather, its goal is to render as much service as possible with a given number of resources, or to use as few resources as possible to render a given amount of service. In most situations, the ideal financial performance in an NPO is a break-even performance, that is, generally and over the long run, outputs should equal inputs. The next section explains the performance measurement as a motivational tool in an NPO.

2.3.6.1.2 Concept clarification: performance measurement

A comparison of the budget results and actual results is a basis for evaluating performance and helps to control future operations. Corrective actions can be taken to eliminate problems that show up in the comparisons. The preceding statements are a fair statement of the role budgets play in performance evaluation. Actual performance is best judged by comparison with expected rather than past performance (Louderback; Holmen & Dominiak. 2000: 229-230; Hansen & Mowen 2000a: 277; 295; 2000b: 267; 2003a: 283; Joshi; Al-Mudhaki & Bremser 2003: 738). The characteristics of performance measurement in an NPO are discussed in detail in the next section.

2.3.6.1.3 Characteristics of performance measurement in an NPO

To be effective performance measurement that determines if budget targets have been achieved should be timely, accurate, clearly communicated to the right persons and be relevant to the decided needs. In publicly accountable NPOs, such as schools there is likely to be a more externally based emphasis on performance. This arises as a result of either the public's general expectations of accountability and transparency on the part of these organisations, or specifically due to the direct public funding of the entity (Horngren & Forster 1987: 197; Proctor 2002: 285; Andrews 2004: 332- 335; Yuen 2006:154).

The monitoring and reporting mechanisms must be appropriately chosen to focus on educators' behaviour on the achievement of budget targets. The resulting common sense of direction encourages goal congruence between educators and school managers. Well-chosen performance criteria aid in clearing communication between educators and school managers. The use of variance analysis in performance appraisal is of great importance (Horngren 1982: 149; Horngren *et al.* 1987: 197; Proctor 2002: 285).

Performance evaluation within schools should be taken to a level where individual performance evaluation will be required and payment in reward or promotion is given to sterling performers working in a school. There may be penalties for underperforming, the most drastic of which is dismissal from a school. Apart from the school's needs to evaluate the performance of those working within the school, there is also the individual need for assessment. Whatever the type of performance evaluation, individual or group, budget targets

must be set in advance which should be known to and understood by participants. The budgetary process forms a systematic basis for setting performance targets in financial terms (Sollenberger & Schneider 1996: 285; Luecke 2002: 114).

Budgetary control reporting in schools is very similar to what it is in profit-oriented organisations. Heads of responsibility units should normally receive monthly reports on their unit's performance. Both financial statistics and non-financial measures of the unit's activity should be presented (Weetman 1996: 564-566; 2003: 634-636; Wasch 1999: 35-27).

Weetman (1996: 567-568; 2003: 638), and Yuen (2004: 524), advise that feedback on whether educators and school managers are achieving budget targets is only effective if it is provided in a short time frame. Most of the time people prefer good news to bad ones. Therefore a negative feedback must be presented in a constructive manner if it is to result in action. Feedback should relate closely to the responsibility level of the individual if it is to encourage remedial action. There may be a personality problem if individuals see the feedback as a criticism of their work. Negative aspects of feedback may need a different form of communication from that needed for positive aspects.

2.3.6.1.4 Advantages of performance measurement

Louderback and Dominiak (1982: 199), as well as Louderback *et al.* (2000: 245), recognise that the budget serves as a feedback device, letting managers know the result of their actions. Hansen and Mowen (2000a: 294; 2000b: 288; 2003a: 299) agree that providing managers with frequent, timely performance reports allows them to know how successful their efforts have been, to take corrective actions and change plans if necessary.

Barsky and Bremser (1999:12) state that in a school environment, managers at all levels of the organisation are engaged in an ongoing communication. Managers (principals, deputy-principals and heads of departments) are expected to post information about the direction of leading and lagging indicators. Educators use this information to take necessary actions to improve performance in their educative teaching in class. Educators are also encouraged to contact superiors and comment on performance trends.

2.3.6.1.5 Disadvantages of using historical data in performance measurement

Horngren (1982:132) warns that a major weakness of using historical data for judging performance is that inefficiency may be buried in the past performance. Again the usefulness of comparisons with the past may be hampered by intervening changes in technology, personnel, products, competition and general economic conditions. Authors (Louderback & Dominiak 1982: 185; Hammer *et al.* 1994: 445; Hansen & Mowen 2000a: 295) concur that the use of past performance as a basis for judging current performance is inappropriate because it fails to consider changes in circumstances. Moreover, comparisons with past performance cannot reveal whether current performance is as good as it should have been. Although improvements over past results are desirable, it is more important to know if the improvement has been as great as it could have been. The positive outcome could serve as a motivational tool for the future performance.

Louderback and Dominiak (1982:199) assert that in most cases, during the budgeting process, the feedback function is ignored. Instead the budgeting is often used as a checking device on managers. Where this is the case managers spent more time trying to think of ways to explain the unfavourable results. Thus, time spent on thinking of ways to defend the results could have been profitably used to plan and control operations (Louderback *et al.* 2000: 245). The next section explains the strategies to performance measurement in an NPO.

2.3.6.1.6 Strategies to performance measurement in an NPO

The various measurement criteria that may be adopted in performance measurement include traditional financial view point of bottom-line profit. The other measurement criterion is a more comprehensive balance-scorecard approach, encompassing a greater variety of strategic goals.

The performance indicators chosen by organisations should encourage the achievement of their fundamental objectives. The core values of the organisation should be constantly borne in mind when choosing performance criteria (Horngren 1978: 147, Horngren *et al.* 2002: 271; Proctor 2002: 285; Andrews 2004: 332 -335).

Barskey and Bremser (1999: 7-8) add that management should develop benchmarks that the NPOs such as schools can use to evaluate achievement of financial targets. However, non-

financial measures should also be used in the benchmarking practice. The performance goals in NPOs are discussed in next section.

2.3.6.1.7 Performance measurement as a motivational tool in an NPO

Authors (Anthony & Hezlinger 1980: 41; Barsky & Bremser 1999:12) submit that the difficulty of measuring performance is when both revenues and costs can be measured. The motivation of a non-profit making organisation should be to breakeven. But this is never the principal motivation, nor should it be an important motivation except in times of financial crisis. The principal motivation should be to render the service and the quality of service rendered should not be measured by the numbers in the financial statement.

A manager's performance is often evaluated by measuring his/her success in meeting the budget objectives. One means of motivating people towards the organisation's goals is to measure their performance in achieving these budget objectives. The budget provides useful means of informing managers how well they are performing in meeting targets that they have previously helped to set. The use of budgets as a method of performance evaluation also influences human behaviour (Drudy & Dugdale, 1996: 247-253; Drudy 1998: 347; 2001: 285; Hilton 1997: 405, Hilton *et al.* 2006: 598). Feedback on performance measurement needs to be provided to principals, deputy-principals, head of departments, educators and members of the SGB to inform them of the performance measurement results.

For effective use of budgets it is essential to report on actual results as soon as possible during the budgeting meetings. Delay in reporting actual results and delay in taking corrective actions can reduce management motivation. It is pointless producing and sending weekly reports if action is taken only after the end of the budgeting period.. Many schools report 'flash' figures to management within few days of the budget period has just ended and rough numbers help determine which flash figures are suitable (Horngren 1987: 164). Once feedback on performance measurement results has been obtained the next logical step is to take corrective actions on those results.

2.3.6.2 *Corrective actions on performance measurement results*

Table 1(below) is an illustrative example of an abridged budget performance report of a secondary school in Gauteng. In this report the difference that occurs between the actual results and the budgeted results in a budget is called a variance. A variance can bear a favourable meaning when the actual results are better than expected or unfavourable meaning when the actual results become worse than expected (Luecke 2002: 114).

Table 1: An example of an abridged budget performance report of a secondary school in Gauteng.

	ACTUAL	BUDGETED	VARIANCE
OVERHEADS VARIABLE:			
• Electricity	R1000	R800	R200 Unfavourable
• Supplies	R 800	R900	R100 Favourable

Overheads variable, in Table 1, refers to cost that varies in total and in direct proportion to changes in activity or volume (Van Rensburg, Ambe, Evangelou, Govender, Koortzen & Ziemmerink: 2008: 22).

Henke and Spoede (1991: 566), and Hansen and Mowen (2000a: 287-288), contend that no adjustment to action plans are required if the evaluation shows that the actual results match with the budgeted results or if a variance amount is favourable. In Table 1 the favourable amounts of electricity and supplies should be sustained or improved. In this case the actual results for supplies are less than budgeted results. On the contrary, if actual results differ with the budgeted results corrective actions need to be taken.

Corrective actions have to be taken when the variance amount is unfavourable, meaning when the actual results become worse than expected. In Table 1 corrective actions should be taken on unfavourable variances on electricity. In this particular case the actual results on electricity are worse than expected or planned.

Before corrective actions can be taken on unfavourable variances an investigation should be conducted to find out the causes for such variances. Furthermore, significant variances should be reported upon. Appropriate actions can be taken after the reporting on significant

variances has been accomplished. The next task is to expand on the investigation of variances.

2.3.6.2.1 Investigating variances

Hansen and Kleiner (1996: 57), and Horngren, Datar and Foster (2003: 229-230) suggest that in cases where variances occur, an investigation to find their causes should be conducted. The aim of variance investigation is to provide the link between budgetary control and budgetary planning. In schools, the investigation of budget deviations should be the responsibility of the heads of departments. Ineffective budgetary systems are marked by failure to develop and use budgets to their fullest potential, that is, budgets are often used as tool for planning only. Great benefits from the budget lie in quick investigations and in the subsequent corrective actions. Budgets should not be prepared in the first place if they are ignored, buried in files or improperly interpreted and abused (Barsky & Bremser 1999:11).

2.3.6.2.2 Significant variances

Drebin and Bierman (1978: 66), Faul *et al.* (1997: 428), Drudy (1998: 347) and Proctor (2002: 246) agree that the process of variance investigation is time consuming and has costs of its own. However, schools also need to control this activity. If operations are going more or less as planned and the variances are small, no follow-up activity takes place. However, where variances are significant, they are investigated (Hansen & Kleiner 1996: 57).

The decision about whether the variance is significant or not is inherently subjective and may vary from one school to the other. Participants in the budgeting process have to decide in advance what the significant levels of their school are going to be. A percentage difference between budget and actual is determined in advance, subject to a minimum account. For example, a given school may investigate all variances that are at least 5% different from a planned budget, provided they are at least R250 in amount. This approach is both relative and absolute. However, another school may have a policy of 10% difference with a threshold of R10 000 (Drebin & Bierman 1978: 66; Faul *et al.* 1997: 428; Drudy 1998: 347; Proctor 2002: 246)

Wasch (1999: 35-28) states that variance analysis may show that an organisation or responsibility centre needs to modify its original budget and cut back or expand its previously planned activities. Unit measures and precise budget information continue to be used at this point, since they help answer this basic question: if we cut back activity X and Y units, how much will it cost in revenues, and how much will it save in expenditures? An opposite phrasing will apply to an expansion of services. Reporting on budget variances is elaborated in the next section.

2.3.6.2.3 Reporting on budget variances

Once the causes of variances are known it is imperative to design the reporting mechanism and interpret the resulting variances. These can have an influence on the behaviour of individuals within the school. This behaviour will in turn have an effect on the school's ability to achieve its goals. However, it is important to remember that adverse variances can be a result of poor standard setting. To inform operatives that they have performed below standard when, in fact, they have done a good job is bad management. Great care should be exercised in the interpretation of variances. This is just as true for schools as it is for profit-making entities (Proctor 2002: 285; Hansen & Mowen 2000b: 295; 2003b: 301; 2006: 356-358).

If changes occur in the actual conditions from those originally expected, this will normally mean that the budget plans should be adjusted. This revised budget then represents revised statements of formal operational plans for the remaining portion of the budget period. The important point to note is that the budgetary process does not end for the current year once the budget has begun. Rather, budgeting should be seen as a continuous and dynamic process. The budget committee should therefore be active the whole year around (Weetman 1996: 561; 564; Needles *et al.* 1999: 906; McLeary 1999: 478-479; Drudy 2001: 290)

Authors (Needles *et al.* 1999: 906; McLeary 1999: 478-479) caution that managers (principals, deputy principals and heads of departments) should not be disciplined for any variances, especially if a budget has been imposed, unless they are obviously guilty of gross mismanagement which could be found through the audit process. Budgetary control is a means of finding out why a variance occurred. It is not supposed to be a means of catching managers out so that they can be disciplined. Managers should be consulted and be involved

fully both in the installation and operation of budgeting and budgetary control system. If this is not the case, experience suggests that such a system will not work (Weetman 1996: 561).

2.3.6.2.4 Conclusion on corrective actions on performance measurement results

In summary, Wasch (1999: 35-28) hint that a school as an NPO will do well if it can answer the following questions:

- Are managers spending more or less than expected because they are doing more or less work?
- Are there internal reasons for the variances that managers need to examine more closely?

2.4 CONCLUSION

An effective budgeting process must contain both planning and control activities. Budgets can be used to evaluate what happened in the past. They are invaluable because they can be used as benchmarks that allow managers to compare their schools' actual performance with estimated or desired performance. Budgeting helps with cost reduction and control. Above all, budgeting compels managers to think about formalising their responsibilities for planning; it provides definite expectations that are the best framework for judging subsequent performance. Equally important, budgeting aids managers in co-ordinating their efforts, so that the plans of a school meet the objectives of a school as a whole.

In the final analysis, the budgeting process involves many people in various departments of a school. Budgets in schools serve multiple roles of planning, decision-making, co-ordination, communication, motivation, and control.

The next chapter deals with types of budgets that could be utilised at schools. Furthermore, the chapter focuses on the types of budgets that schools could use to ensure an effective, economic and efficient budgeting process.

CHAPTER 3

THE TYPES OF BUDGETS FOR SECONDARY SCHOOLS

3.1 INTRODUCTION

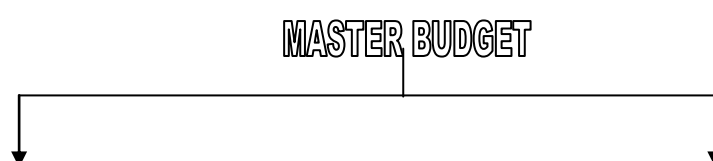
Chapter 2 revolved around the budgeting process that schools should implement in order to actualise efficient and effective budgeting. A budget is efficient if it plans to achieve greater outputs with smaller quantity of inputs, that is doing more with less or doing things right. On the other hand budgeting is effective if budget plans are put in place to execute the right budget activities to attain the predetermined budget objective - doing *right* things. To sustain or improve an effective and efficient budgeting process schools should use various types of budgets, which are issues for discussion in this chapter. Schools can use the following types of budgets: master budget, incremental budget, zero-base budget, programme budget, expense budget and activity-base budget.

3.1.1 A master budget

A master budget is a comprehensive financial plan for the organisation as a whole. Basically, a master budget is divided into operational and financial budgets. Operating budgets consists of sales or revenue, production, direct material, direct labour, manufacturing overheads and selling and administrative budgets (Hansen & Mowen 2000a: 278). On the other hand Hansen and Mowen (2000a: 278) state that financial budgets include budgets such as cash, capital, pro-forma statement of comprehensive income and pro-forma statement of financial position as shown in Figure 3. The operating budgets are discussed in the next section.

3.1.1.1 Operating budgets

In Figure 3 (3.1.1.1) operating budgets describe the income generating activities of organisations. The income generated from these activities is expressed in sales or revenue in Figure 3, (3.1.1.1.1) and production budgets (3.1.1.1.2) (Hansen & Mowen 2000a: 278; 2003b: 284). In addition, the income-generating activities of organisations can be further expressed in terms of direct material budget, direct labour budget, manufacturing overheads budget (Van Rensburg, Ambe, Evangelou, Govender, Koortzen & Ziemerink 2008: 237).



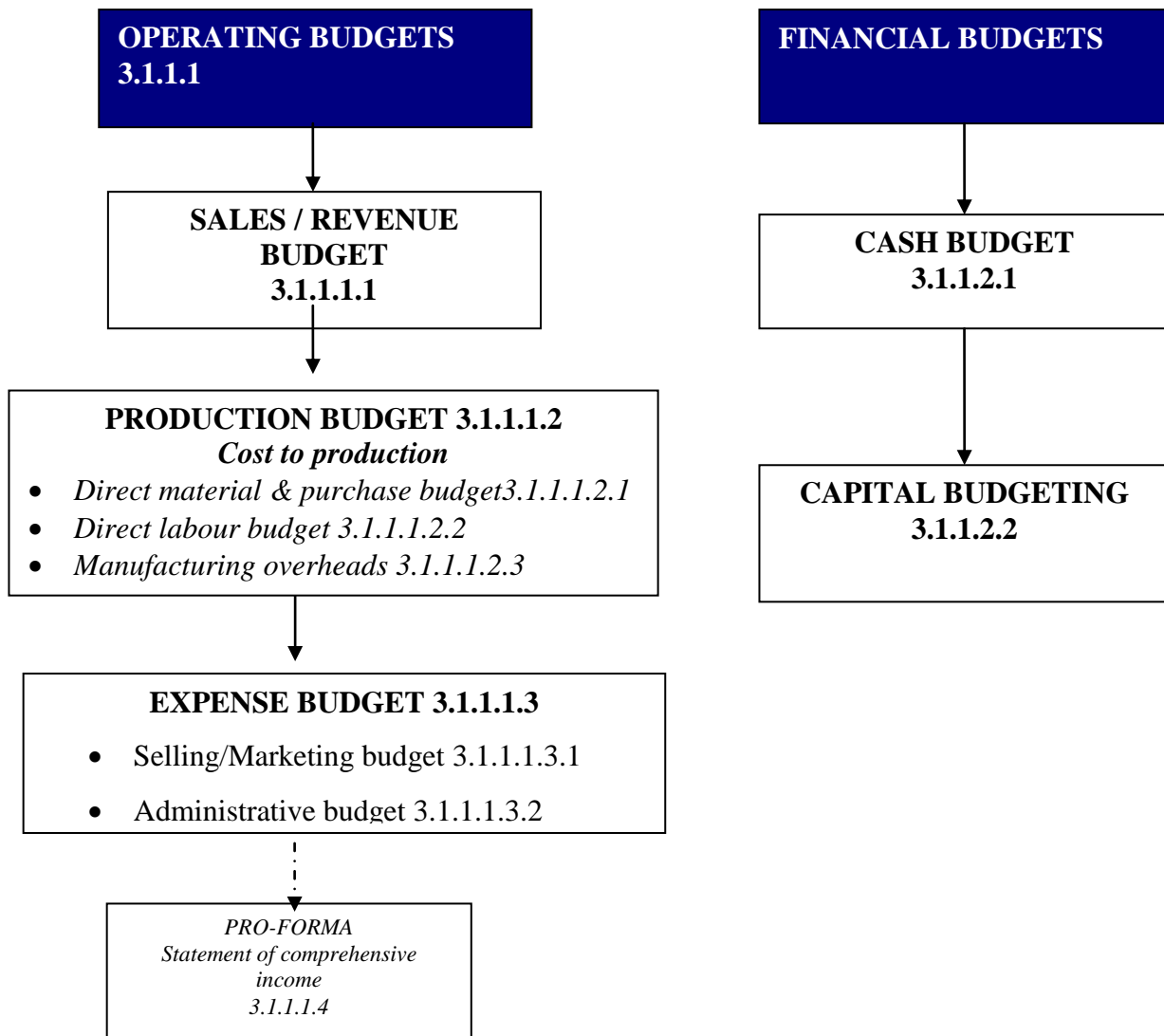


Figure 3: A master budget

Source: Hilton (1997: 296)

The selling/ marketing and administrative budget, illustrated in Figure 3 (3.1.1.1.3.1) lists the budgeted expenses for areas other than manufacturing. In large organizations, this budget would be a compilation of many smaller, individual budgets submitted by heads of departments and other persons responsible for selling/ marketing and administrative expenses (Seal, Garrison & Noreen 2006: 510-511) and (Van Rensburg *et al.* 2008: 237). Only those budgets that are appropriate to schools such as revenue budget, marketing and administration budgets shall be elaborated upon.

MASTER BUDGET

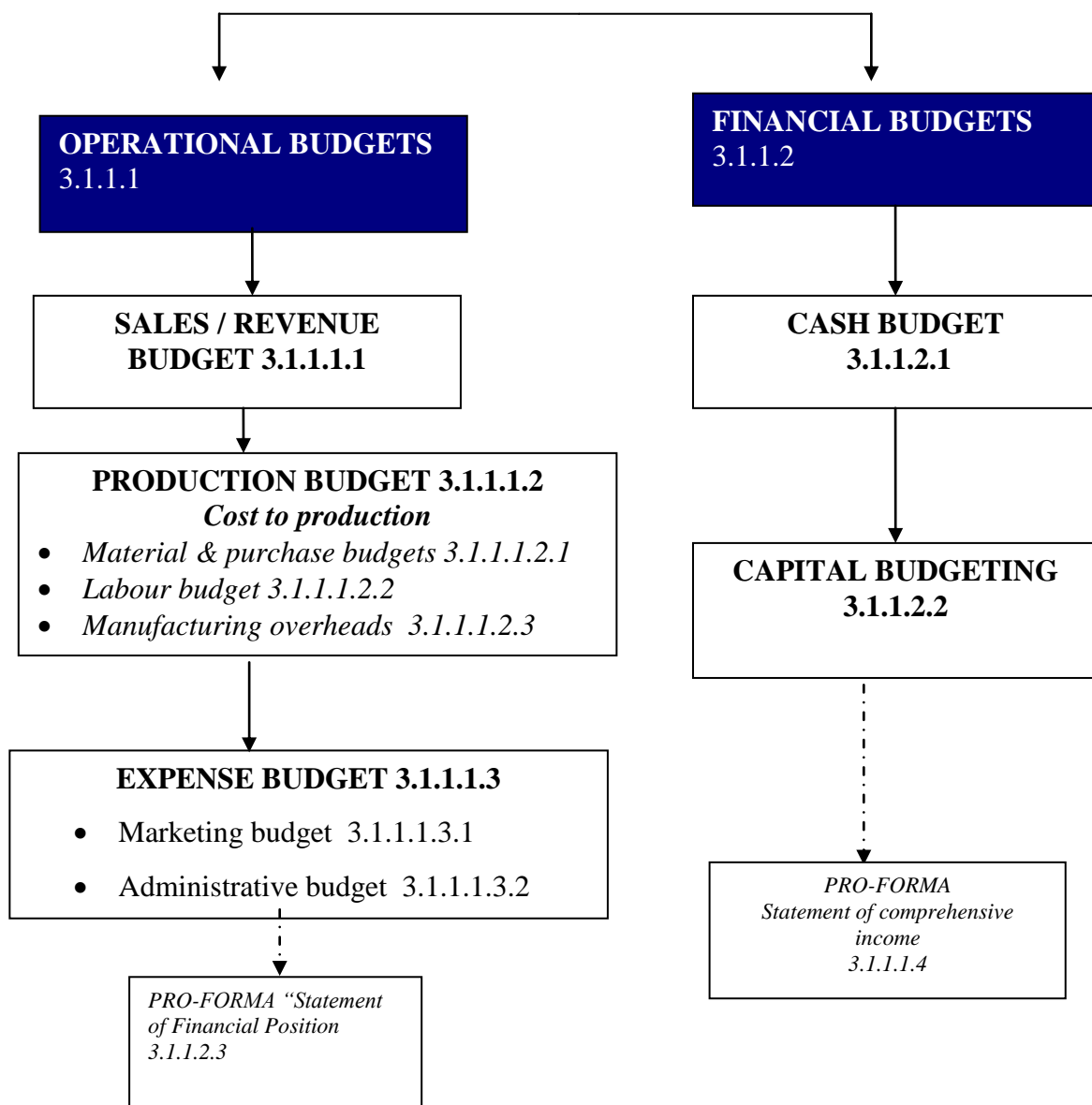


Figure 4: A master budget for schools

3.1.1.1.1 Sales /revenue budget

Hilton (1997: 405) explains that the starting point for any master budget is a sales or revenue budget based on forecast of services rendered or sale of goods (see Figure 3). According to Dyson (2004: 380) not all entities start the budget process with sales. As illustrated in Figure 4, a school usually prepares a revenue budget taking into consideration the money the State will give, income from school fees charged, income from interest on money of the school, and income from all other projects from sources (Potgieter *et al.* 1997:43).

According to Henke and Spoede (1991: 55), a sales budget is developed by reference to historical sales data. In the case of schools historical sales data will be the number of learners in a certain school for the previous year. A school can also generate revenue through the sale of uniforms, income from investments, fundraising, donations and tuck-shop income. The school's historical data about learners could help to determine the number of learners that should be enrolled for the current year.

School principals and lower level managers should also give due consideration to managerial plans, school-marketing forecasts, and various forecasts regarding the general economy when charging school fees. By implication principals and lower-level managers should not just increase the number of learners with the hope of increasing the school's revenue. All of the above-mentioned factors should be taken cognizance of when a revenue budget is developed. Table 2 is an illustrative example of a revenue budget.

In the above table, the school's historical data about learners for year 200X was 1000 learners which generated a total revenue of R80 000. The school management decided to increase the number of learners for year 200Y by 20% to 1 200 due to the fact that the historical data for year 200X indicated that learners were fewer in relation to the number of classes available, subject choices and staff number.

Table 2: Sales or revenue budget

YEAR	DETAILS	EXPECTED REVENUE/ EXPECTED SCHOOL FEES
200X	NUMBER OF LEARNERS x SCHOOL FEE PER LEARNER (1000 x R80)	R 80 000
200Y	NUMBER OF LEARNERS x SCHOOL FEE PER LEARNER (1 200 x R100)	R120 000
200X	SALE OF SCHOOL UNIFORM	R4 000
200X	INCOME GENERATED FROM INVESTMENTS	R1 500
200X	FUNDRAISING (fun run, concert tournaments, cake sales)	R11 500
200X	DONATIONS (Pick n Pay)	R5 000
200X	TUCK-SHOP INCOME	R10 000

Adapted from: (Faul, Du Plessis, Van Vuuren, Niemand & Koch 1997: 434)

The school fee per learner was also increased by 25% to R100 because of interest rate increments that were anticipated in year 200Y. All these increments for year 200Y resulted in a revenue increment from R80 000 to R120 000, which will help the school to cover expected expenditure. Other than school fees the revenue for the school can be generated from monetary donations, fundraising, government grants, bank interest, tuck-shop sales and use of facilities such as school halls, sport grounds, billboards, etc. (Faul *et al.* 1997: 434)

The increase in the number of learners in secondary schools can be attributed to the marketing activities that schools engage upon. In this instance, the secondary school management pays visits to primary schools to let primary school learners know about their school and what they offer. The management of secondary schools also attracts prospective learners from other secondary schools by using marketing media such as newspapers, radio and television. Some schools do their marketing using pamphlets (Dinako Management Consultants : 2004: 19-20).

According to Horngren *et al.* (2002: 283-284), secondary schools also face a problem of revenue forecasting. This occurs when, for example, revenue forecast depends on income generated from government grants, school fees, donations, fund raising, etc. The forecasting

difficulty will be that secondary schools are never certain on how much to expect from grants, school fees and other income generating sources.

3.1.1.1.2 Production budget

This budget shows only the number of units that must be manufactured to satisfy the needs of the sales budget (Faul *et al.* 1997:432; Needles *et al.* 1999:913) production budget consists of material budget and direct labour budget (see Figure 3). Secondary schools do not prepare a production budget because they are not manufacturing entities hence the production budget is excluded in Figure 4. In the situation where fundraising takes place, a production budget pertinent to the fundraising activity should be drafted. In the next section the cost to production budgets will be discussed.

3.1.1.1.2.1 Material and purchases budget

After the production requirements have been computed, a direct materials budget can be prepared. The direct materials budget details the raw materials that must be purchased to fulfil the production budget and to provide for adequate stocks. Preparing a budget of this kind is one step in a company's overall material requirement planning (MRP). The direct material budget is usually accompanied by a schedule of expected cash disbursements for raw materials. This schedule is needed to prepare the overall cash budget. Disbursement for raw materials consists of payments for purchases on account in prior periods plus any payments for purchases in the current budget period (Seal *et al.* 2006: 506 -507) and (Van Rensburg *et al.* 2008:241-242). In the case of schools, a material budget is not prepared because the schools are not manufacturing entities, however such a type of a budget could be prepared if there is a fundraising project that has to take place. The material required will be based on what is required for the process of fundraising.

3.1.1.1.2.2 Labour budget

Seal *et al.* (2006: 507) & Van Rensburg *et al.* (2008:242) point out that a direct labour budget is also developed from the production budget. Direct labour requirements must be computed so that the company will know whether sufficient labour time is available to meet production needs. By knowing in advance just what will be needed in the way of labour time throughout

the budget year, the company can develop plans to adjust the labour force as the situation may require. The labour costs for schools such as garden and cleaning services are budgeted for by schools.

3.1.1.1.2.3 Manufacturing overheads budget

Polimen, Fabozzi, and Adelberg (1991:388), and Faul *et al.* (1997: 434) assert that a manufacturing overheads budget consists of a summary of the various budgets of all the cost items in the production section that do not fall under material or direct labour. Schools are not manufacturing entities, therefore manufacturing overheads will be incurred in cases where manufacturing of a product, like baking cakes, occurs to raise funds. Because accounting reports and related information form the basis for budget control, the manufacturing overheads budget must be prepared within the framework of the accounting system. Nonetheless, the ultimate outcome of the operating budgets is a pro-forma or budgeted statement of comprehensive income (Hansen & Mowen 2000a: 278; 2003b: 284)

3.1.1.1.3 Expense budget

This budget lists the budgeted expenses for areas other than manufacturing. These areas, also called expense items, range from educational aids to rental equipments (see Table 3). In private organisations and public organisations such as schools, this budget would be a compilation of many smaller, individual budgets submitted by heads of department and other persons responsible for selling/marketing and administrative expenses (Seal *et. Al* 2006: 510-511; Van Rensburg *et. Al* 2008:244) (see Figure 3 and Figure 4). An example of an expense budget, applicable to both schools and private organisations, is illustrated in Table 3.

Table 3: An expense budget

	EXPENSE ITEM	20X
1	Advertising costs	R1000
2	Stationery	R10 000
3	Telephone	R5 000
4	Accounting and auditing	R30 000
5	Cleaning materials	R1000
6	General supplies(keys, paints)	R1000
7	Transport	R1500
8	Water and electricity	R1500
9	Insurance of machinery and equipments	R2000
10	Rental of machinery and equipments	R500
11	Uniform purchase	R1000
12	Rubbish removal	R200
13	Maintanance of garden	R500
	TOTAL EXPENSES	R53 700

Adapted from: (Eldenburg & Wolcott 2005:378)

In schools, the school finance budget committee will lists primary activities undertaken by the school to achieve its goals. The committee will also pay attention to expenses such as electricity, insurance of machinery and equipments, etc (Robbins & Mukerji 1990: 138-141). Potgieter *et al.* (1997:43) state that schools must pay for services they receive such as water and electricity, rubbish removals and other similar services. In cases where schools cannot pay for such services they must approach the government for assistance. If the government decides to pay, the Minister has to lay down some rule with regard to the consumptions of services.

Taxes and other rates charged in respect of public school property will normally be paid by the State but different principles may apply to schools in the various provinces and different parts of the country (Potgieter *et al.* 1997:43). Wasch (1999:35-6) points out that the problems of estimating expenses are usually more manageable than budgeting revenue. It is also generally easier to record and classify expenses when they are actually incurred. However, it is virtually impossible to match expenses incurred in providing a programme or

service, or in operating a department, to any specific revenue sources. In the next section a selling/marketing budget and an administration budget will be discussed.

3.1.1.1.3.1 Selling/ Marketing budget

Hilton (1997: 405) and Louderback *et al.* (2000: 226) state that all the secondary schools' marketing expenses such as advertising, telephone, stationery, etc., are reflected in the expense budget, instead of developing a separate marketing budget. The schools' marketing expenses which are shown in the expense budget help in analysing the schools' revenue and exercising effective control (3.1.1.1.3.1 in Figure 4). Selling or marketing items like vehicle and transport, special projects, cleaning materials, insurance of machinery and rental of equipments are listed in Table 3.

3.1.1.1.3.2 Administrative budget

Polimen *et al.* (1991:388) argue that the administrative budget does not have a direct connection with sales/revenue and production budget. In secondary schools this will mean that the administrative budget has no direct connection with revenue budget and represents only the estimate of the expenditure concerning the formulation of the schools' policy, the leadership and the administration of the schools (3.1.1.1.3.2 in Figure 4). Such schools' expenditure will be accounting and auditing, advertising and postage, flowers for funerals and gifts, stationery and telephone. In Table 3 administrative items such as educational aids, printing machines and stationery are some of the items comprising the administrative budget.

3.1.1.1.4 *Budgeted statement of comprehensive income/ Pro-forma statement of comprehensive income*

According to Van Rensburg *et al.* (2008: 247) the budgeted or pro-forma statement of comprehensive income (3.1.1.1.4 in Figure 4) can be prepared from the data reflected in a sales budget, production budget, material budget, marketing and administrative budget. In secondary schools the budgeted statement of comprehensive income or pro-forma statement of comprehensive income will be the data derived from the revenue budget and the expense budget. The secondary school's expense budget includes general expenses, marketing and

administrative items. The budgeted statement of comprehensive income shows the surplus or deficit schools can expect from its budgeted operations.

The pro-forma statement of comprehensive income is the key schedule in the master budget. It provides an estimate of secondary schools' financial performance during future periods and often is the primary benchmark against which their financial performance during the period will be assessed (Ingram *et al.* 2001: 215).

Table 4: Statement of comprehensive income for Secondary School X for the period 200X and 200Y.

	200X	200Y
Income (See revenue budget 3.1.1.1.1)	R200 000	R140 000
Less: Expenses (See expense budget 3.1.1.1.3)	R113 500	R148 500
Advertising costs	R 15 000	R 30 000
Stationery	R 10 000	R 11 000
Telephone	R 15 000	R 18 000
Accounting and auditing	R 6 500	R 4 500
Cleaning materials	R 15 000	R 20 000
General supplies(keys, paints)	R 8 000	R 10 000
Transport	R 20 000	R 25 000
Water and electricity	R 24 000	R 30 000
Surplus/ (Deficit) for the period	R 86 500	(R8 500)
Surplus/ (Deficit) at the beginning of the period	R 1 000	R87 500
Surplus/ (Deficit) at the end of the period	R87 500	R79 000

Adapted from: (Eldenburg & Wolcott 2005: 379)

The secondary school's budgeted or pro-forma statement of comprehensive income shown in Table 4 indicates that the school's income for 200X was higher compared to the income for 200Y. The reasons for the low income in 200Y could be that the school did not make an effort to raise funds, received fewer donations than expected or there were delays in payment by organisations that rent their school premises.

The income generated for 200X was enough to cover the expenses incurred for that period. After all expenses had been paid during this period the school had a surplus of R87 500. The income from year 200Y was less to cover expenses that were incurred during that particular year. As a result the balance for 200Y was a negative balance which was a deficit of R8 500.

Considering that the school's financial performance for 200X was successful with a surplus of R 87 500, the deficit of R 8 500 for 200Y could be covered by the surplus. The covering of this deficit with the surplus resulted in a positive balance of R79 000. Secondary schools have to budget expenses to be incurred taking into consideration the income to be generated. The financial budgets are discussed in the next section.

3.1.1.2 Financial budgets

Financial budgets (Figure 4: 3.1.1.2) detail the inflows and outflows of cash and the overall financial position of a school. Planned outflows and inflows appear in a cash budget (see Table 5). In schools the outflows are known as expenditures and inflows are known as expected income. The cash budget in schools is known as income and expenditure budget. The expected financial position at the end of the budget period is shown in the budgeted or pro-forma statement of financial position. Since many of the financing activities are not known until the operating budgets are known, the operational budget is prepared first and thereafter the preparation of financial budget should follow (Louderback & Dominiak 1982: 183-184; Hilton *et al.* 2006: 598).

Van Rensburg *et al.* (2008: 237) assert that financial budgets deal with how to get funds required for the resources. Figure 3 illustrates that the financial budgets consist of a cash budget (3.1.1.2.1), capital budget (3.1.1.2.2), pro-forma budgeted statement of comprehensive income (3.1.1.2.3) and pro-forma budgeted balance sheet (3.1.1.2.4) which are discussed below. The budgeted statement of comprehensive income will not be discussed at this juncture as it has been elaborated upon in the earlier section of operational budgets.

3.1.1.2.1 A cash budget

A cash budget provides an estimate of all receipts and payments and the manner and period in which they will be received or employed. This budget is prepared once all the other budgets are complete. A projected cash budget usually shows the monthly projected cash position of schools, but it can be subdivided into weekly or daily periods (Hilton *et al.* 2006:598).An example of a cash budget is shown in Table 4.

Schools may receive revenues (3.1.1.1.1) in the form of school fees, government grants, donations, fund raising and the use of the school facilities at the beginning of a budget period and need to plan how to allocate these funds over the course of a year (Du Toit *et al* 2001:71).

According to Table 5 above if payments are less than the receipts it means that the school will have a positive balance which is referred to as surplus and is carried forward to the next period. In the case where the payments are more than the receipts, it implies that the school has a negative balance, which is called a deficit and is also carried forward to the next period. The month of January shows that the school's cash budget performance was a success because it had a surplus of R20 000. In the next month of February the school experienced a fall in cash budget performance which resulted in a negative balance of R2 700. This negative balance of February affected the following month of March as the school carried over a deficit of R 2 700 that could not help to cover the payments of the month of March.

Table 5: A cash budget

	JANUARY	FEBRUARY	MARCH
	R	R	R
Opening cash balance	-	20 000	(2 700)
Add: Receipts	78 000	60 500	75 500
School fees	12 000	10 000	11 000
Donation	7 000	3 000	6 000
Government grants	50 000	40 000	50 000
Fund raising	4000	2 500	4000
Rent received for the use of facilities	3000	3 500	2500
Interest received	2000	1500	2000
Total cash available for the needs	78 000	80 500	74 800
Deduct :Payments	58 000	83 200	74 800
Water and electricity	24 000	30 000	30 000
Stationery	3 000	8 000	10 000
Furniture& equipment repairs, maintenance	15 000	18 000	15 000
Transport	10 000	20 000	12 300
Accounting and audits	5 000	6 100	5 500
Bank charges	1000	1100	2000
Surplus/ (deficit)	20 000	(2700)	0

Adapted from: (Louderback, Holmen & Dominiak 2000: 282)

If the school did not have a negative amount during the month of February, the school could have had a surplus of R2 700 for the month ending March.

A cash budget should include estimated cash from operating as well as resources of cash, that is, interest received from the schools' deposited money, donations, government grants. The cash budget predicts and plans for the level and timing of cash inflow and outflow. The cash budget is important for the schools' finance budget committee since it indicates shortages or surpluses of cash in each period - usually months (Luecke 2002: 125-126).

Hansen and Mowen (2000a: 278-279) state that the knowledge of cash flows is critical to managing school finances. Knowledge of cash flows helps a school's finance budget committee succeed in generating revenue and spending money wisely. By knowing when cash deficiencies and surpluses are likely to occur a school finance budget committee can plan to raise cash by means of fund raising or by requesting donations. Cash flow is the life blood of schools, hence it is an important budget in a master budget.

3.1.1.2.2 A capital budget

Profit-making organisations prepare a capital budget which contains expenditures for fixed assets. Capital budgets are required periodically because there will be expenditures associated with acquiring fixed assets (Harper 1995: 324; Louderback *et al.* 2000: 230; Du Toit *et al.* 2001: 71). However, schools are not directly involved in expenditure on acquiring fixed assets. This task is done by the provincial education departments. The schools only indicate their fixed assets needs to the relevant provincial education department (Republic of South Africa, 1996: 33). In view of this fact a capital budget will not be discussed.

3.1.1.2.3 Budgeted statement of financial position

Ingram *et al.* (2001: 218) state that the budgeted balance sheet identifies the expected amount of assets, liabilities, and owners' equity at the end of the budget period. A pro-forma budgeted balance sheet provides information about expected assets and liabilities. The information about expected assets and liabilities can be useful for a variety of reasons. For example, management of profit-making organisation may want to determine if ending working capital (the difference between current assets and current liabilities) is sufficient for

planned functional activities of an organisation. Managers can use pro-forma or budgeted balance sheet to assess expected performance.

3.1.2 Conclusion on a master budget

Du Toit *et al.* (2001: 70) and Hilton *et al.* (2006: 601-602) explain that a master budget for non-profit making organisations includes many of the components included in profit making organisations. However, there are some important differences. Hence, they have no sales budget like profit-making organisations do.

Table 6: Budgeted statement of financial position

ASSETS	200X	200Y
	R	R
CURRENT ASSETS		
Cash at bank(cash budget)	30 433	87 655
Staff loans	-	279
Accounts payable	-	(1000)
NON-CURRENT ASSETS		
Fixed assets	24 926	-
TOTAL ASSETS	55 359	86 394
CAPITAL EMPLOYED		
Capital & reserves	49 408	86 394
Accumulated funds	49 408	86 394
Current liabilities	5 951	-
TOTAL EQUITY + LIABILITIES	55 359	86 394

Adapted from: (Garrison & Noreen 2003: 398)

Nonetheless, such organisations do begin their budget process with the budget that shows the level of services to be rendered and associated funds that will be assigned to the services. The source of funds may be contributions, payments by users of the services, or some combination.

In developing the budget, non-profit making organisations often have unusual difficulties in budgeting revenues. This is primarily because so many revenues do not result directly from

the non-profit making organisation's rendering of services to a community (Wasch 1999: 35-5; Horngren *et al.* 2002: 283-284).

3.1.3 Incremental or traditional budget

Incremental budget is developed from historical figures in which case the school finance budget committee looks at the previous period's budget and actual results as well as expectations for the future in determining the budget for the next period. The advantage of this budget is that history, experience, and future expectations are included in the development of the budget. The disadvantage often cited by critics of incremental budget is that school finance budget committee may simply use the past period's figures as a base and increase them by a set percentage for the following year or budget cycle rather than taking time to evaluate the realities of the current and future market place. They may also develop a use-it-or-lose-it point of view, with which school finance budget committee feel they must use all the budgeted expenditures by the end of the period so that the following period's budget will not be reduced by the amount that would have been saved (Luecke 2002: 117-118).

Proctor (2002: 213) and Pendlebury (1985: 287) argue that an incremental approach to budget development assumes that there will be little change in activity for the next year compared with the current year. The numerical amounts (known as allowances) are arrived at taking last year's amount and adding an increment for any known changes and for inflation. An incremental budget is a historical budget based on past budgets. It is a budget for income and expense categories for example school fees, stationery, transport, etc. (Dinako Management Consultants 2004: 11-12). Table 7 is an illustrative example of an incremental or traditional budget.

In incremental budget each department might be given a 5% increase (or decrease) in some or most of its line items. In a somewhat broader application of incremental budgeting, each department might be given a 5% increase (or decrease) and allowed to spread the total increase (or decrease) over whatever items available (Louderback & Dominiak 1982: 243; Dodge 1994: 267; Drudy 2001: 301). For example if a manager was given a budget allowance of R50 000 last year, that manager is likely to use this amount as a starting point when negotiating a budget allowance for the new budget year. The manager uses the R50 000

as a starting point, adds on an amount to cover higher prices caused by inflation. Either approach ignores the matter of objectives.

Table 7: Incremental budget

	200X EXPECTED RECEIPTS/INCOME	200Y EXPECTED RECEIPTS/INCOME
Income:		
- Donations	R10 000	$R\ 10\ 000 + 5\% = R\ 10\ 500$
-Fund raising	R 1 000	$R\ 1\ 000 + 5\% = R\ 1\ 050$
-School fees	R20 000	$R\ 20\ 000 + 5\% = R\ 21\ 000$
-Government subsidy	R100 000	$R100\ 000 + 5\% = R105\ 000$
-Tuck shop sales	R 3 000	$R\ 3\ 000 + 5\% = R\ 3\ 150$
-Income from use of facilities	R 3 500	$R\ 3\ 500 + 5\% = R\ 3\ 675$
TOTAL INCOME	R137 500	R144 375
Expenditure:	EXPECTED EXPENDITURE	EXPECTED EXPENDITURE
- Audit fee	R3 500	$R3\ 500 + 5\% = R3\ 675$
-Petty cash	R1 000	$R1000 - 5\% = R1050$
-Stationery	R6 000	$R6\ 000 + 5\% = R6\ 300$
-Telephone	R8 000	$R8000 + 5\% = R8\ 400$
-Training and development	R30 000	$R30\ 000 + 5\% = R31\ 500$
Teaching aids	R1 1 000	$R11\ 000 + 5\% = R11\ 550$
TOTAL EXPENDITURE	R 59 500	R62 475
Surplus/(deficit)	R78 000	R81 900

Adapted: (Dinako Management Consultants 2004: 11-12)

Most important, either approach assumes that the increased or decreased benefits of changes in one segment of the total entity are equal to the increased or decreased benefits of any other segment. Furthermore, when the current budget allowance is based on prior expenditures, there is a tendency to spend right up to the allowance in order to avoid cuts in the next period's budget (Louderback & Dominiak 1982: 243; Dodge 1994: 267).

Robbins and Mukerji (1990: 138) further state that an incremental or traditional budget has two characteristics. First, funds are allocated to departments or organisational units. The managers of these units then allocate funds to activities as they see fit. Second, an incremental budget develops out of the previous budget. Each period's budget begins by using the last period as a reference point. Only incremental changes in the budget request are reviewed. Each of these characteristics, however, create a problem.

The incremental budget is particularly troublesome when top management seeks to identify inefficiencies and waste. In fact, inefficiencies tend to grow in the incremental budget. Each budget begins with the funds allocated for the last period, to which unit managers add a percentage for inflation and requests for those new or expanded activities they seek to pursue. Top management only looks at the requests for incremental changes. The result is that money can be provided for activities long after their need is gone (Robbins & Mukerji 1990: 138; Dodge 1994: 267).

Based on Table 6 the school has prepared the incremental budget for the year end 2008 based on the information from the previous year of 2007. The figures for 2008, before 5% increment for the entire incremental budget, are the same as the figures of incremental budget for 2007. The school then decides to increase its entire items as shown in the incremental budget for the year 2008 by 5%. The increment of 5% is suggested or estimated by the school finance budget committee.

3.1.4 Zero-base budget

A zero-base budget is devised as a reaction to the traditional incremental approach to budget. The traditional approach starts with the previous year's expenditure budget, adding a percentage to cover inflation and making adjustment for any unusual factors. Because the incremental approach depends on the previous year's figures, errors in estimation would continue indefinitely. A zero-base budget requires a completely clean sheet of paper every year. Each part of the organisation has to justify over again the budget it requires. The approach is useful for the output-driven approach to budgeting because it forces questions to be asked about programme planning and the cost-benefit aspects of the plans (Pendlebury 1985:287-290; Faul, Du Plessis, Van Vuuren, Niemand & Koch 1992: 267; 2001: 445-446; Garrison & Noreen 2000: 402 -403; Louderback *et al.* 2000: 296; Luecke 2002: 117-118).

Louderback and Dominiak (1982: 244) note that a full review of each and every manager's budget request is likely to be far too costly, therefore two variations of the zero-base approach have been developed in practice.

The one approach is that each budget unit is asked to submit three or more budget requests. Each request is associated with a different and definable level of service from that unit. Upper level managers can then compare the additional services to be gained from an incremental increase in costs for that unit and better compare the benefits associated with cost increments in different units.

Another approach to implement the idea of a zero-base budget is to require that there be full review of certain or all budget units every few years. Such a review is intended to make sure that there is still a need to spend money for a particular service and that the money being spent is being spent wisely (Louderback & Dominiak 1982: 244).

A zero-base budget helps to improve the focus and accuracy of budget outputs. Its problem is that it involves even more work than traditional budgets. So it is best used on a once-off basis rather than on a regular basis. A zero-base budget is time consuming and costly and annual reviews soon become mechanical and the whole purpose of a zero-base budget is then lost (Garrison & Noreen 2000: 402-403; 2003: 380; Neely; Bourne; & Adams 2003: 24). An example of zero-base budget is found in Table 7.

Table 8: A zero-based budget

EXPECTED INCOME		PLANNED INCOME	
School fees(mainstream x note 1) R72 000 (600 learners@R120 per learner)		Photocopier maintenance charges R 1000	
School fees(Pre-primary additional)R19 600 (35 learners@R560 per learner)		Learners actual treat	R4 000
Interest	R1000	Bank charges	R700
Tuck shop sales(20% mark-up)	R36 000	Annual athletic meeting	R5000
Income from assets: Use of Hall	R20 000	Sporting equipments	R6 000
Fundraising:	R11 500	Office stationery & printing	R3000
1. Various activities	R 2500	Telephone & Facsimile	R5000
2. Fun run	R7 000	Postal services	R700
3. Concerts	R 2000	Textbooks	R7 500
		Repairs to building	R10 500
		Alarm system (Tool highway)	R4000
		Transport: sports	R4000
		Improvements of grounds	R2000
		Awards functions	R5000
		LRC study aids	R6000
		Tuck shop purchases	R46 600
		Security services	R19 000
		Petty cash	R500
		Cleaning materials	R25 000
		Audit fees	2 600
		Miscellaneous expenditure	R2000
R160 100		R160 100	
Note: Total planned expenditure		160 100	
Less: expected income derived from other sources excluding mainstream school fees		R88 100	
Shortfall to be divided per learner to ascertain mainstream school fees (R72 000 / 600 learners=R120)		R72 000	

Adapted from: (Dinako Management Consultants 2004: 21)

Vigario (2005: 244) suggests the following guidelines for the implementing of a zero-base budget:

- Involve all managers who are responsible for spending money and controlling it. Each should be capable of being designated as a cost centre.
- Give them guidance in what is involved in creating a workable budget. If they have never been involved before, they will need to know what goes into the existing budget. Some basic training is essential to avoid the whole exercise getting out of hand.
- Have available all necessary basic information so that managers do not have to re-invent the wheel.
- In every case where a manager wants to make a change, whether upwards or downwards, he must interact with other related managers and comment meaningfully on the impact that such changes would have on other cost centres. One great advantage of this is that managers would have a greater understanding of the way in which the whole organisation works in an integrated manner.
- Each manager at the next level would review the three positions of his subordinate managers and add his report to each one. S/He, of course, would have the benefit of being able to see how each relates to the other as well as to cost centres outside his/her own control.

3.1.5 An activity-based budget

According to Brimson (1996: 84), and Neely *et al.* (2003: 24), an activity-based budget involves planning and controlling along the lines of value-adding activities and processes. The resource and capital allocation decisions are considered with Activity Base Management analysis, which involves structuring the school's activities and processes so that they better meet learners' and external needs. Table 8 is an example of an activity based budget drawn up by the head of department for the English department in an imagined school.

An activity-based budget is a planning and control system which seeks to support the objective of continuous improvement. It is a development of conventional budgeting systems and is based on activity-analysis techniques. In outline this requires the identification of the activities in cost pools (Lucey 1996: 411; Eldenburg & Wolcott 2005: 387).

Table 9: An activity-based budget

ACTIVITY	SUB-ACTIVITY	COST DRIVERS	COST CENTRE	COST
English Dept. Grades 8-12	Grade 8	No. of learners:120 in grade 8	1 Telephone	1 Telephone
	1. Set books(Top- up)	Quotes for set books	Phone suppliers to top-up set books. 3 calls average 6mins@30c per unit(unit=3min)	
	2. Personal support & discipline	No. of learners (approx 40)	Phone parents of learners to set up interviews. +- 40 learners at +-2 units @ 30c	
			Total Telephone	R
			2 exams/Tests	2 exams/Tests
	3.Exams/Tests	No. of learners(120) 5 reams of paper @ R20 per ream	126 sets of exams x 2(June & Dec); 5 pages per set @ 40c per sheet	
			8 monthly tests x 4 pages @ 40c per sheet	

Adapted from: (Lucey 1996:412)

An activity-based budget begins with sales and production budgets. In a school environment the activity-based budget will begin with the revenue or services to be rendered. An activity-based budget identifies the overheads (regarded as expenses in schools), marketing and administrative activities and then builds a budget for each activity. The resources needed to provide the required activity output levels are also taken into consideration. Costs are classified as variable or fixed with respect to the activity output measure (Hansen & Mowen 2000b: 561- 562).

Lucey (1996: 411) suggests the following key features of the activity-based budget:

- It is a budget that involves the activities which drive costs and its aim is to control the causes (drivers) of costs directly rather than the costs themselves. In the long-run, costs will be managed and better understood.
- Not all activities add value so it is essential to differentiate and examine activities for their value-adding potential.
- The majority of activities in a department are driven by demands and decisions beyond immediate control of the budget holder. Conventional budgets, expressed in financial terms against established cost headings, ignore this usual relationship.
- More immediate and relevant performance measures are required than are found in conventional budgeting systems. These consist exclusively of traditional financial measures which are insufficient to fulfil the objectives of continuous improvement. Additional measures are required which should focus on the factors which drive activities, the quality of the activities undertaken, the responsiveness to change and so on.

The value of an activity-based budget lies in providing a link between the schools' strategic objectives and the objectives of individual activities.

Dinako Management Consultants (2004: 11-12) explains that the activity-based budget determines which expenses are important to spend money on. It is also for specific activities to be undertaken by the school, for example, a school trip, marketing exercise, etc.

3.1.6 A programme budget

The increasing interest in and use of a programme budget owes much to an increasing public demand for accountability from governmental and non-profit organisations. A programme budget requires the budgeting not to only indicate what the request funds are to be spent on but also why the funds are to be spent. It emphasises the desired output of the unit's efforts and normally provides the unit's manager with considerable discretion in shifting expenditures from one category to another as long as the shift will increase the likelihood of achieving the desired results (Louderback & Dominiak 1982: 244- 245). For example, a traditional budget for the school would probably show the objects of the school's expenditures, such as educator's teaching aids, cleaning materials, sports equipment, cultural

activities, library books, supplies, etc. A programme budget for a school would also show the expenditures for such categories as reading, remedial work, students' activities and support services (Louderback *et al.* 2000: 296-297).

Pendlebury (1985: 286), and Robbins and Mukerji (1990: 138-141) explain that a programme budget allocates funds to groups of activities (programmes) that are needed to achieve a specific objective. Managers rank activities in order of importance: 'must' first, then mere 'needs'. This process needs a team which knows about the enterprise as a whole, though it may be necessary to delegate some of the work to people with better detailed knowledge of particular areas. This makes it easier to decide whether to approve a particular programme and how much to spend on it. The process also involves looking at other ways to achieve the same end result, as well as weighing up the costs or benefits implications of different quality levels. The proposals from various departments can then be evaluated by higher level managers, and those that appear to provide the greatest benefit to the firm can be given the resources they require. Activities that promise a low level of benefit are not likely to be funded when resources are scarce, but may be funded when resources are more plentiful. As such, a programme budget is designed to deal with one of the major problems of incremental budgets, that is funds allocated to departments.

A programme budget clearly specifies the goals and therefore allows people to see where their money is directed and to see if it is spent effectively and efficiently (Robbins & Mukerji 1990: 138-141). For example, if the school requests money for educators' training and development to improve their financial management skills, the board members can direct their questions to evidence of meeting that particular objective.

3.2 CONCLUSION

Budgets can be used to evaluate what happened in the past. They are invaluable because they can be used as benchmarks that allow school managers to compare their schools' actual performance with estimated or desired performance. Budgets help with cost reduction and control. The use of any budget discussed or combination of budgets will ensure effective budgeting process discussed in Chapter 2. The next chapter deals with research methodology.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 INTRODUCTION

In this chapter the sampling procedures is discussed. The activities constituting the sampling procedure such as identifying the target population, determining the sampling frame, selecting the sampling method and determining the relevant sample size are described. The focus in this chapter is also on the piloting of the questionnaire. The method of collecting data is elaborated and the statistical analyses, such as frequency analysis, exploratory factor analysis and correlation analysis that are used in analysing data are described. The forms of validity and reliability are defined as well. The ethical issues that have to be considered in conducting this study are explained.

4.2 THE SAMPLING PROCEDURE

In this section of the chapter, the objective is to describe the various activities of the sampling procedure. These activities are identifying the target population, determining the sampling frame, selecting the sampling method and determining the relevant sample size.

4.2.1 Identifying the target population

Welman and Kruger (1999: 122) describe a target population as the total number of all units about which the researcher wishes to make conclusions. In other words, a target population is a population to which the researcher ideally would like to generalise his or her results.

The target population for this study is public secondary schools in the Gauteng South Region. The Gauteng South Region consists of two education districts, namely, Sedibeng East Education District (D7) and Sedibeng West Education District (D8) with a total of 18 and 45 public secondary schools respectively (see Appendix A and Appendix B). In Appendix A and Appendix B the number of educators per school is shown.

4.2.2 Determining the sampling frame

A sampling frame is a complete list in which each unit of analysis is listed only once (Welman & Kruger 1999: 49). It is important to keep the sampling frame in mind in order to judge the representativeness of the obtained sample properly. The sample should be of the sampling frame, which ideally is the same as the population (Maree, Cresswell, Ebersohn, Eloff, Ferreira, Ivankova, Jansen, Nieuwenhuis, Pietersen, Plano Clark & Van der Westhuizen 2008: 712).

The sampling frame in this study is the list of public secondary schools in D7 and D8 (see Appendix A and Appendix B). This list can be found on the Gauteng Education Department website. The number of public secondary schools in D7 is 18 and 45 for D8. The names of these schools appear in Appendix A and Appendix B. The units of analysis were principals, deputy-principals, heads of department and educators. The numbers of units of analysis are shown in Appendix A and Appendix B.

The total number of principals, deputy-principals, heads of department and educators in D7 is 682. However, the number of participants from which the sample will be drawn is 616 because the two piloted schools are excluded. These two schools are Meyerton High School with 29 participants and Thuto-Lore Secondary School with 37 participants (see pilot testing of the questionnaire in section 4.3). The total number of principals, deputy-principals, heads of department and educators in D8 is 1 797. Similarly, two piloted schools were excluded from participating schools. The two excluded schools are Hoërskool Vanderbijlpark with 28 participants and Botebotsebo Secondary School with 56 participants (see pilot testing of the questionnaire in section 4.3). As a result the number of participants from which the sample will be drawn is 1 713.

The total number of principals, deputy-principals, heads of department and educators for both districts is 2 329. Figure 5 illustrates that D8 has a higher percentage of principals, deputy-principals, heads of department and educators in relation to D7. These public secondary schools in D7 and D8 are situated in the townships and towns.

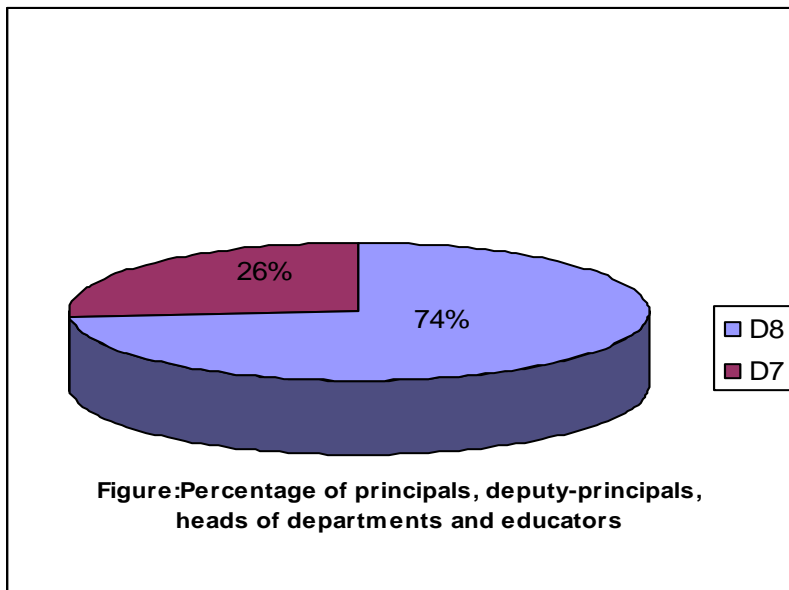


Figure 5: Percentage of principals, deputy-principals, heads of departments and educators

Each school has a finance committee consisting of six members. This will result in a total of 18 finance committees for D7 and 45 such committees for D8. This means that D8 has a higher number of finance committees relative to D7 (see Figure 5).

4.2.3 Selecting the sampling method

The size of the population can make it difficult to use all the elements of the targeted population. In such an instance the researcher has to decide on the type of the sampling method to be used to draw a sample (Welman & Kruger 1999:47). There are two methods of sampling, namely, probability sampling method and non-probability sampling method. In the probability sampling “each item in the population has a chance of being selected” whereas in non-probability sampling “not all items or people have a chance of being included in the sample” (Lind, Mason & Marchal 2000:221).

In this study probability sampling is used. Cluster sampling as one type of probability sampling method has been utilised. In cluster sampling the population is divided into a number of non-overlapping groups which are called clusters. From the selected clusters the units of analysis should be randomly selected (Manoharan 2010:24).

In this study the population is found in D7 and D8. In both D7 and D8 the public secondary schools are clustered into township schools and town schools (see Appendix C and Appendix D). In D7 the public secondary schools in township and town clusters were randomly selected. The public secondary schools resulting from this process are shown in Table 10. From each school selected all educators in that school were made part of the sample.

Table 10: Sampled public secondary schools in D7

SCHOOLS IN THE TOWNS	SCHOOLS IN THE TOWNSHIPS
<i>Name of schools</i>	<i>Name of schools</i>
Hoërskool Vereeniging	Mohloli
General Smuts	Lekoa Shandu
Three Rivers High	Isizwe

A similar sampling method was used for the public secondary schools in township and town clusters of D8. These schools can be viewed in Table 11.

Table 11: Sampled public secondary schools in D8

SCHOOLS IN THE TOWNS	SCHOOLS IN THE TOWNSHIPS
<i>Name of schools</i>	<i>Name of schools</i>
Hoërskool Transvalia	Sebokeng Technical
Vaal High	Isizwe-Setjhaba
Prestigious	Katleho-Impumelelo
Suncrest High	Lebohang
Hoërskool Suiderlig	Residentia
	Esokwazi
	Mahareng

The cluster sampling method would be effective if the clusters that are formed are as heterogeneous as the population. By implication, the selected heterogeneous clusters should be representative of the population (Maree *et al.* 2008:176). In respect of this study the sampled public secondary schools are heterogeneous and representative of the entire population of these schools in D7 and D8. Using the cluster sampling method the researcher was able to draw public secondary schools from township and towns schools to reflect population heterogeneity.

4.2.4 Determining the relevant sample size

According to De Vos, Strydo, Fouche and Delport (2002:198) sampling means taking any portion of a population or universe as representative of that population or universe. Lodico, Spaulding and Voegtler (2010: 25) state that the sample should also be carefully chosen to ensure that the sample has the same characteristics of the total population.

When deciding on the sample size it is always wise to have a large sample. In this respect Leedy and Ormrod (2001: 221) advise that when the population size is around 1 500, 20% of the population should be sampled to be the units of analysis. In this study the total population is 2 329. Following Leedy and Ormrod's guideline the sample size for this study should be 466 units of analysis. In this study the researcher has come to a conclusion that the sample size should be 680 which is made out of 242 (143 + 99) participants in D7 and 438 (172 + 266) participants in D8 (see Table 12 and Table 13).

There are two reasons for the researcher using a sample size of 680. The first is to ensure that there should be sufficient participating schools. The second reason for involving 680 units of analysis is to ensure that the sample becomes large so that findings can be derived from their responses. In addition, "larger samples represent the population better than small samples and their findings will also be more accurate" (Maree *et al.* 2008:178).

Table 12 and Table 13 indicate the names of participating public secondary schools in both districts. In each of the school sampled, from the towns and the townships, all principals, deputy-principals, heads of departments and educators will be issued with a questionnaire.

Table 12: The names of public secondary schools and the number of participants per school D7

SCHOOLS IN THE TOWNS		SCHOOLS IN THE TOWNSHIPS	
<i>Name of schools</i>	<i>Number of participants</i>	<i>Name of schools</i>	<i>Number of participants</i>
Hoërskool Vereeniging	37	Mohloli	43
General Smuts	70	Lekoa Shandu	34
Hoërskool Drie Riviere	36	Isizwe-Setjhaba	22
Total	143	Total	99

Table 13: The names of public secondary schools and the numbers of participants per school in D8

SCHOOLS IN THE TOWNS		SCHOOLS IN THE TOWNSHIPS	
<i>Name of schools</i>	<i>Number of participants</i>	<i>Name of schools</i>	<i>Number of participants</i>
Hoërskool Transvalia	42	Sebokeng Technical	28
Vaal High	28	Katleho-Impumelelo	42
Prestigious	35	Lebohang	42
Suncrest High	28	Residentia	56
Hoërskool Suiderlig	39	Esokwazi	56
		Mahareng	42
Total	172	Total	266

It can be observed from Table 12 and Table 13 that the number of the sampled schools in D8 is more than the number of the sampled schools in D7. The reason for varying numbers of participating schools is to ensure that D8, as a larger district, should have more schools and respondents than in D7.

In the next section the pilot testing of the questionnaires will be discussed.

4.3 PILOT TESTING OF THE QUESTIONNAIRE

It is essential that the constructed questionnaire be thoroughly pilot-tested before being utilised in the main study. This ensures that errors of whatever nature can be rectified in time (De Vos *et al.* 2002: 177). The questionnaire was piloted with 20 participants from D7 and D8 schools. In D7 a questionnaire was issued to 5 participants from the town's secondary schools (Meyerton High School) and 5 from the township secondary schools (Thuto-Lore Secondary School). The same procedure was applied in D8, where 5 questionnaires were issued to participants in the town's secondary schools (Hoërskool Vanderbijlpark) and 5 questionnaires to the township secondary schools (Botebotsebo Secondary School). These schools were excluded from the participation in the main study.

The respondents in the above-mentioned schools in D7 and D8 did not find any difficulty in answering the questionnaire; therefore there were no changes made to the original questionnaire. This questionnaire can be viewed in Appendix E.

4.4 THE RESEARCH DESIGN

Welman and Kruger (1999: 46) define the research design as “the plan according to which the researcher obtains research participants (subjects) and collects information from them.” Through the research design the researcher will describe what she/he is going to do with the participants with a view to reaching conclusions about the research problem, research hypothesis or research question (Menter, Elliot, Hulme, Lewin & Lowden 2011:41).

This study is a quantitative research, which implies that it is considered as systematic and objective in the sense that it makes use of numerical data from respondents' feedback. The numerical data is used to generate findings and generalize these findings (Swift & Piff 2010:256). The next section describes the data collection method used in this study.

4.5 DATA COLLECTION METHOD

A questionnaire was utilised to collect data from respondents.

4.5.1 Questionnaire

De Vos *et al.* (2002: 172) define a questionnaire as “a set of questions on a form which is completed by the respondent in respect of a research project.” The questions can be open-ended or close-ended. An open-ended questionnaire is where the researcher has set questions and participants are expected to provide their comments. On the other hand a close-ended questionnaire is where the researcher has set of questions with options from which the participants can choose. Arthur, Waring, Coe and Hedges (2012: 233), and Welman and Kruger (1999: 168) add that questionnaires often make use of rating scales. In this study a close-ended questionnaire was used and this questionnaire can be viewed in Appendix E.

Data will be collected by means of a survey using a structured questionnaire. The questionnaire utilised in this study consists of two sections, Section A and Section B. Section A seeks to elicit biographical information relating to the geographical location of schools, the position held by respondents at participating schools, whether or not participants belonged to the finance committee, the number of years in service of respondents, the number of learners and educators in participating schools. The questions in this section were close-ended. This questionnaire appears in Appendix E.

Section B of the questionnaire is a Likert scale questionnaire with four statements about the budgeting process. Participants will be expected to indicate the degree to which they “*Strongly agree*”, “*Agree*”, “*Do not agree*” and “*Strongly disagree*” with each statement provided. This questionnaire can be viewed in Appendix E.

The questionnaires were hand delivered to sampled schools after the pilot study was conducted. As indicated in section 4.3 there were no changes made to the questionnaires after the pilot study.

4.6 STATISTICAL ANALYSIS

In this section various statistical analysis methods are discussed, namely, frequency analysis, exploratory factor analysis and correlation analysis which were used in analysing data.

4.6.1 Frequency analysis

In frequency analysis data is organized or presented into frequency distribution which is presented in a frequency table or bar chart (Nolan & Heinzen 2011:22). In this study data was analysed using frequencies (see sections 5.2 and 5.6 in Chapter 5).

4.6.2 Exploratory Factor Analysis (EFA)

In this study the exploratory factor analysis was used to analyse the questionnaire statements. Before that the Kaiser-Meyer Olkin (KMO) and Barlett's tests of sphericity were utilised to measure the reliability of items. The factors were extracted using the rotated loading matrix and their reliability was tested (see sections 5.3, 5.4 and 5.5 in Chapter 5).

Before using the Bartlett's test of sphericity it should first be determined if the technique is appropriate for the data set in this study. Lombaard, Van der Merwe, Kele and Mouton (2011:333) define Barlett's test of sphericity as the test "that probes whether the variance and covariance are identity matrices." In fact, Barlett's test determines the suitability of factor analysis for the data set in the study.

KMO is used to determine the suitability of the factor analysis for a specific type of the study. The golden rule is that if the values resulting from the KMO test are between 0.5 and close to 1.0 the factor analysis is firmly deemed to be suitable for the study (Williams, Onsman & Brown 2010:5).

4.6.3 Correlation analysis

Coefficient of correlation (r) "provides a clue as to whether the relationship between the independent variable and the dependent variable is a matter of chance or not" (Hoy 2010:59-60). A coefficient of correlation is the number that is utilised to indicate the extent of the relation between two continuous variables (Howitt & Cramer 2005:225). In this study the

correlation between factors extracted through the exploratory factory analysis was determined (see section 5.11 in Chapter 5).

4.7 VALIDITY TEST

A validity test is defined as the extent to which the instrument measures what it is supposed to measure (Runyon, Haber, Pittinger & Coleman 1996:50). Validity takes different forms, each of which is important in different situations:

- **Face validity** - the extent to which, on the surface, an instrument looks like it's measuring a particular characteristic. Face validity is often useful for ensuring the cooperation of people who are participating.
- **Content validity** - the extent to which a measurement instrument is a representative sample of the content area (domain) being measured.
- **Criterion validity** - the extent to which the results of an assessment instrument correlate with another, presumably related measure (the latter measure is called the criterion).
- **Construct validity** - the extent to which an instrument measures a characteristic that cannot be directly observed but must instead be inferred from patterns in people's behaviour (such a characteristic is called a construct) (Vijayalakshmi & Sivapragasam 2009:31).

The internal validity of a research study is the extent to which its design and the data that it yields allow the researcher to draw accurate conclusions about cause and effect and other relationships within the data. The external validity of a research study is the extent to which its results apply to situations beyond the study itself - in other words, the extent to which the conclusions drawn can be generalized to other contexts (Miller 2007:13). The validity tests applied in this study are explained in section 5.13 of Chapter 5.

4.8 RELIABILITY TEST

A reliability test measures the extent to which the obtained scores may be generalized to different measuring occasions, measurements or test forms and measurement or test

administrators (Welman & Kruger 1999:143). In addition it yields consistent results when the characteristics being measured haven't changed. Like validity, reliability takes different forms in different situations. The following are several forms of reliability that are frequently of interest in research studies:

- **Interrater reliability** - the extent to which two or more individuals evaluating the same product or performance give identical judgments.
- **Internal consistency reliability** - the extent to which all items within a single instrument yield similar results.
- **Equivalent forms reliability** - the extent to which two different versions of the same instrument (e.g. "form A" and "form B" of a scholastic aptitude test) yield similar results.
- **Test-retest reliability** - the extent to which the same instrument yields the same result on two different occasions (Mustafa 2010:221).

The reliability test applied in this study is elaborated in section 5.12 of Chapter 5.

4.9 ETHICAL CONSIDERATION

Ethics is a set of "moral principles that are suggested by an individual or group, which are subsequently widely accepted and offer rules and behavioural expectations about most correct conduct towards experimental subjects and respondents, employers, sponsors, other researchers, assistants and students" (De Vos *et al.* 2002:63)

The confidentiality of results and findings should be guaranteed. It is also important to protect the identities of participants in research. The researcher should obtain the permission to conduct the study in the demarcated area. Equally important for the researcher is acquainting himself or herself with the ethics policy of the institution where research will be conducted (Newby 2010:47-49)

The permission to conduct this research study was granted by Mr Shadrack Phele, Chief Information Officer from Gauteng Department of Education.

The D7 and D8 public secondary school principals were issued with the permission letter. They were willing to cooperate without being forced. They communicated the information to their staff who were willing to participate in the research. After this process the questionnaires, accompanied by the permission letter, were issued, based on the number of principals, deputy-principals, head of departments and educators in D7 and D8 public secondary schools. Some (principals, deputy-principals, head of departments and educators to D7 and D8) didn't participate. The respondents were told not to reveal or write their names. The questionnaire had a part where the respondents had to indicate their rankings at work and such information would be kept confidential by the researcher.

4.10 CONCLUSION

In conclusion, the sampling procedure was discussed. The method of data collection was described. The various statistical methods of analysis used in the study were outlined. Reliability and validity tests were elaborated. Critical ethical issues pertaining to the conduct of research were emphasised. In the next chapter the researcher will report on the analysis and interpretation on the questionnaire feedback from participants.

CHAPTER 5

RESULTS AND FINDINGS

5.1 INTRODUCTION

The previous chapter focused on the research methodology that was utilised to obtain data from the research participants. This chapter provides reports (respondents' feedback) on the questionnaires which were issued to participating public secondary schools in District 7 and District 8. Items from the questionnaire were subjected to exploratory factor analysis. The exploratory factor analysis is used to extract the factors relevant to the budgeting process. The loading matrix is computed to determine the appropriate items for each factor. The items are analysed through frequency analysis. Correlation analysis is performed to establish the relationship between the factors.

5.2 THE DESCRIPTION OF BIOGRAPHICAL DATA

Feedback on Section A of the questionnaire, which represents the biographical information, is presented in this section. The data in Figure 6 shows that a lot of respondents were from the D8 making up 70% of the total number of respondents, while participants from D7 constituted only 30% of total number of respondents.

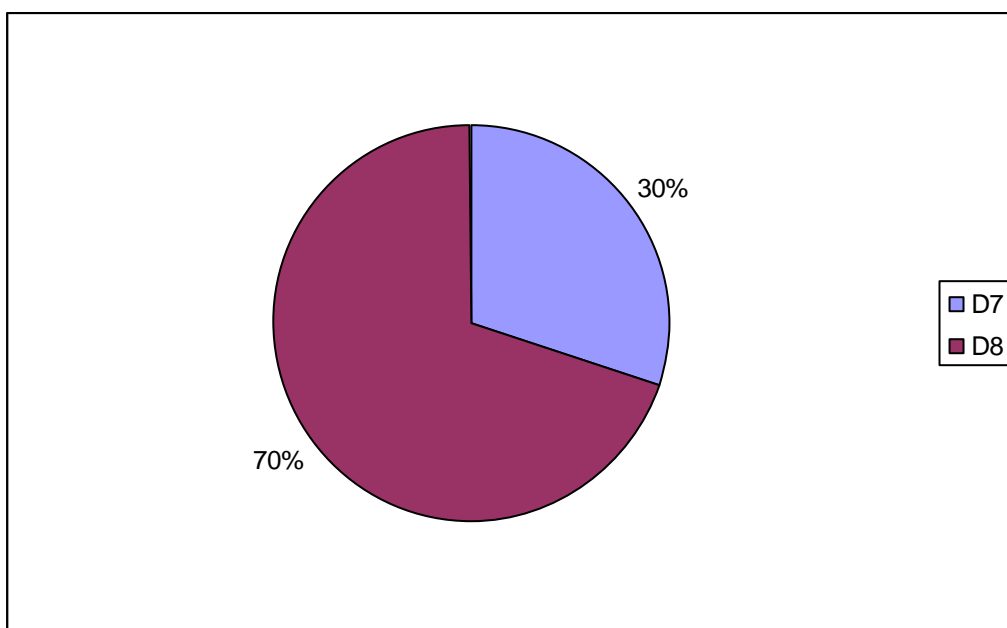


Figure 6: Percentages of participants per district

The higher percentage of respondents from D8 could be attributed to the number of schools per district, with D8 having a higher number of schools than D7.

In this study the majority (82%) of respondents is from township schools, whereas a low percentage (18.4%) of respondents was from the towns (see Figure 7).

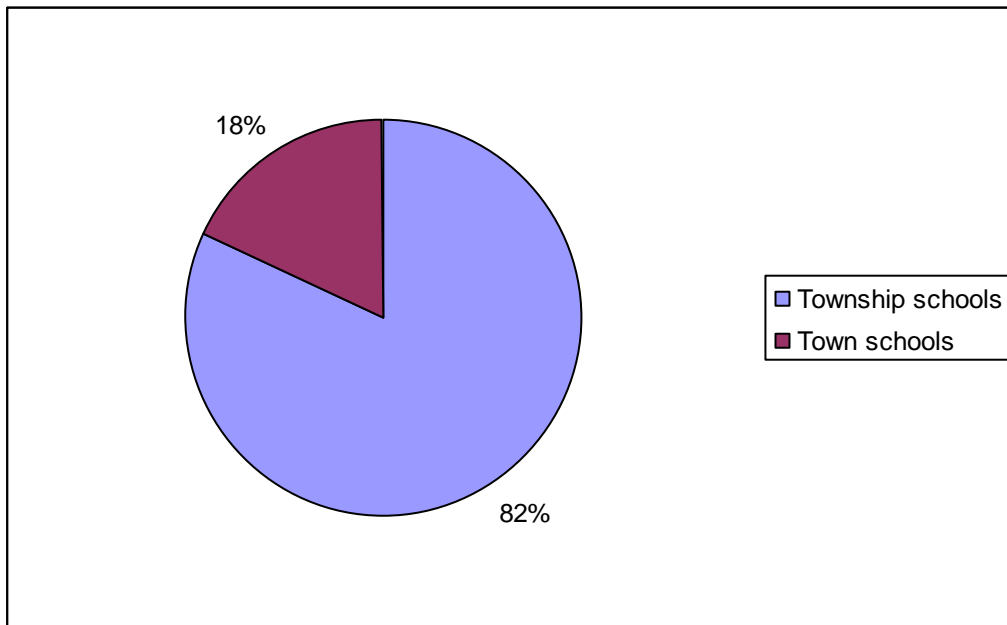


Figure 7: Percentage of schools per area

Figure 8 illustrates the positions held by respondents in schools. In other words, many respondents (79%) to the questionnaire were educators, whereas 13% respondents were heads of departments. The percentages of deputy-principals and principals in the study were 3% and 5% respectively.

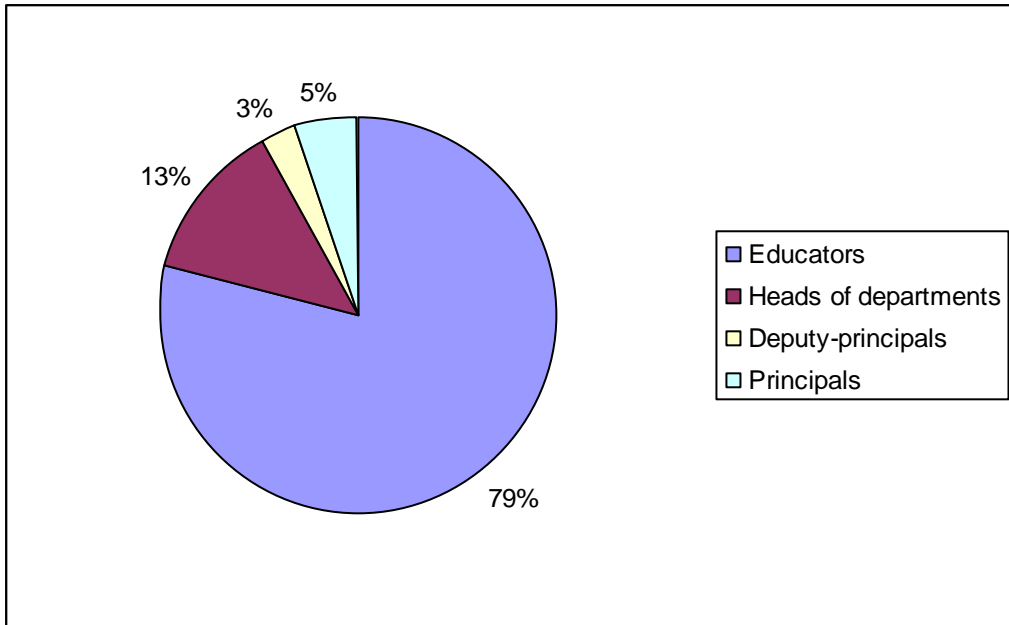


Figure 8: Percentages for positions held at school

Figure 9 indicates the number of years in service of respondents. The figure shows that many of the experienced educators, with a term of service of more than five years took part in the study. Added together the percentages of these respondents are 79% (31% + 19% + 9% + 20%).

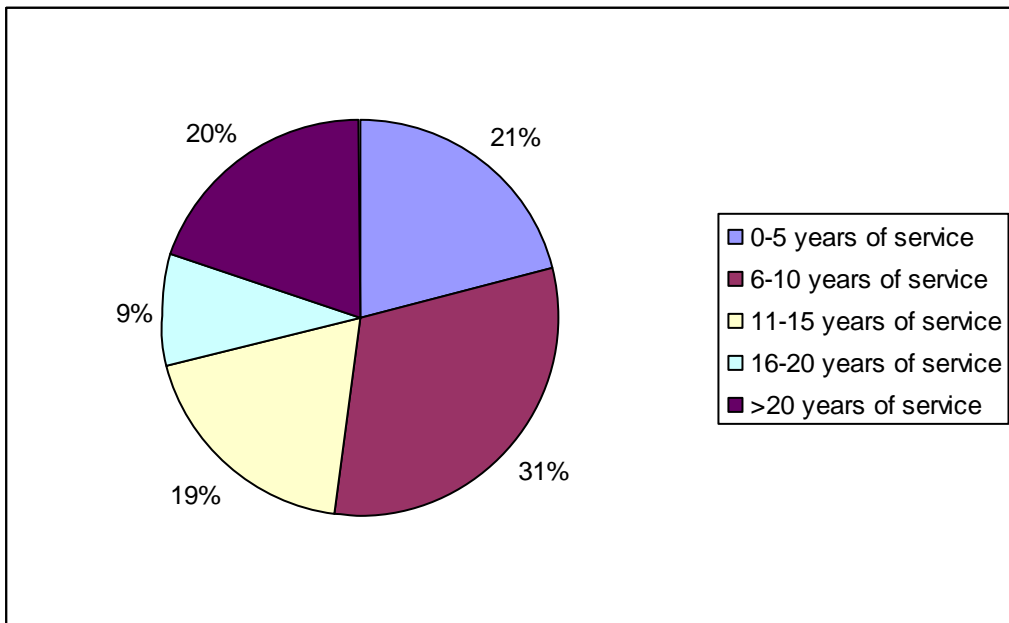


Figure 9: Years in service of respondents

Many of the respondents to the questionnaire were not members of the school finance committee (see Figure 10). This percentage of respondents who are not members of the school finance committee stands at 90%.

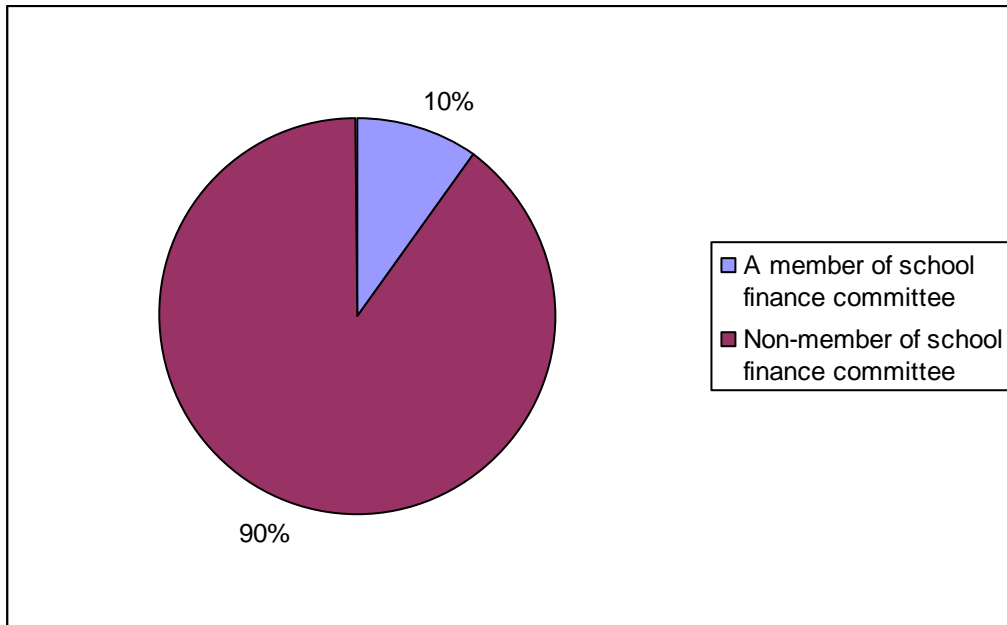


Figure 10: Membership of the school finance committee

Many of the schools (58%) that were involved in the study had about 500-1000 learners (see Figure 11). The schools with learners more than 1000 made up 41% of the responding schools and only 1% of schools who participated in the study had less than 500 learners.

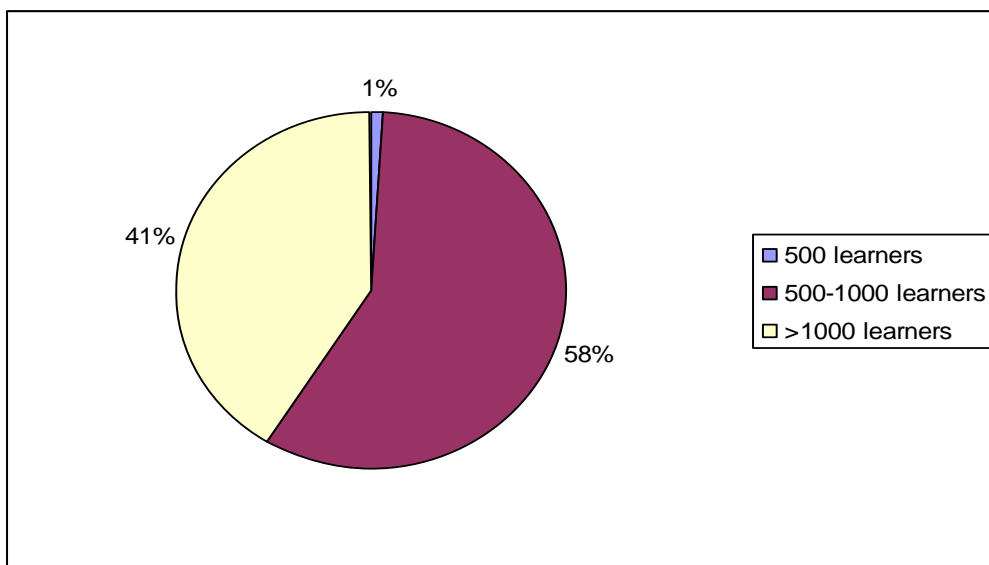


Figure 11: Number of learners of participating schools

The schools participating in the study with 20-49 educators constituted 84% of the total of all schools taking part in the study. The percentage for educators includes school managers, that is, heads of departments, deputy-principals, and principals. Only 1% of these schools had less than 20 educators whereas more that 15% of the schools had more than 50 educators (see Figure 12).

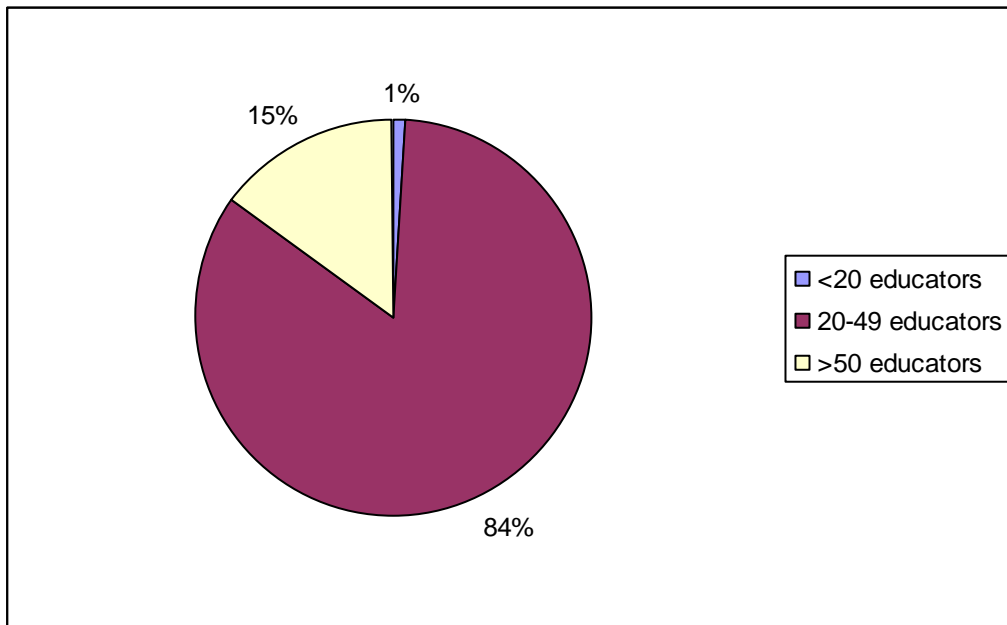


Figure 12: Number of educators including school managers in the participating schools

The next section explains the exploratory factor analysis used in the study.

5.3 EXPLORATORY FACTOR ANALYSIS (EFA)

This section of the study focuses on the 38 questionnaire statements in Section B of the questionnaire. The questionnaire statements were analysed through the use of the Exploratory Factor Analysis (EFA). Furthermore, the use of Kaiser-Meyer Olkin and Barlett's test of sphericity and item reliability are explained. The methods of extraction are elaborated upon. The researcher will provide relevant coinage values to the factors extracted. Thereafter, presentation and interpretation will be accomplished.

5.4 BARLTLETT'S TEST OF SPHERICITY

Before using the Bartlett's test of sphericity it should first be determined if the technique is appropriate for the data set in this study. Lombaard, Van der Merwe, Kele and Mouton (2011:333) define Barlett's test of sphericity as the test "that probes whether the variance and covariance are identity matrices." In fact, Barlett's test determines the suitability of factor analysis for the data set in the study. In essence, where variables, in this case the questionnaire statements, show no sign of being related, the factor analysis is considered unsuitable. The converse is also true, where factor analysis will be considered appropriate if the variables are related. In this study the recorded chi-square value resulting from the use of Bartlett's test of sphericity is 5275.533 ($df = 496$), at the significance level of $p < 0.000$. This data is exhibited in Table 14. The conclusion that can be derived from the results is that the variables or questionnaire statements are essentially related, implying that the factor is appropriate for the data set.

5.5 KAIZER-MEYER –OLKIN (KMO) TEST

KMO is used to determine the suitability of the factor analysis for a specific type of study. The golden rule is that if the values resulting from the KMO test are between 0.5 and close to 1.0, factor analysis is firmly deemed to be suitable for the study (Williams, Onsman & Brown 2010:5). In this study, the KMO value is 0.94 and it therefore confirms that factor analysis is the suitable procedure that can be used in this study. Both Barlett's test of sphericity and the KMO can be viewed in Table 14.

Table 14: Bartlett's test of Sphericity and the KMO index

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.944
Bartlett's Test of Sphericity	Approx. Chi-Square	5275.533
	Df	496
	Sig.	.000

After the task of establishing whether factor analysis is appropriate for the study through Bartlett's test of sphericity and the KMO, the next logical task is to determine the number of factors that can be extracted for the study. These factors can be extracted by utilizing the

percentage of variance, eigenvalues and scree plot. How these methods were used is elaborated in the following section.

5.5.1 Percentage of variance method of factor extraction

The use of percentage of variance method of factor extraction essentially means that the number of factors to be extracted hinges on the cumulative percentage of variance of the factors. Collectively, the percentage of variance of extracted factors should reach at least 60 per cent of the explained variance (Maholtra & Birks 2007:654). The five factors extracted from the study and their pertinent percentage of variance and cumulative percentage are exhibited in Table 15. These factors' cumulative percentage is 77.81 per cent, hence it is considered as an acceptable percentage of variance.

Table 15: Percentage of variance and percentage

Factors	% of Variance	Cumulative %
1	58.263	58.263
2	7.715	65.978
3	4.856	70.834
4	3.753	74.587
5	3.753	77.813

5.5.2 The eigenvalue criterion of factor extraction

The next step after extracting the factors is to determine the eigenvalues of each factor in order to include or exclude them. An eigenvalue is the value of variance associated with each factor. The basis for inclusion and exclusion is that variances should be greater than 1.0 and less than 1.0 respectively (Suhr 2005:2). The eigenvalues associated with the factors extracted in this study are shown in Table 16. The eigenvalues associated with the factors indicate that the factors extracted are appropriate for the study.

Table 16: Eigenvalues

Factors	Eigenvalues
1	18.644
2	2.469
3	1.554
4	1.201
5	1.032

5.5.3 The scree plot method of factor extraction

After the eigenvalues associated with each extracted factor have been computed, the scree plot is constructed to probe the graph of eigenvalues to determine the natural bend or break-point in the data. The break occurs where the curve flattens out (Costello & Osborne 2005:3). Tai (2005:194) asserts that the plot has “a distinct break between the steep slope of factors, with large eigenvalues and a gradual tailing off associated with the rest of the factors.” This gradual tailing off is referred to as the scree. In essence, the specific point where the scree begins to tail off is an indication of the actual number of factors appropriate for the study (Tai 2005:194).

The scree plot for this study is illustrated in Figure 13. The point of levelling off in the scree is at five factors. The implication is that only five factors can be used in this study.

The methods used, that is exploratory factor analysis and rotated factor loadings, resulted in the extraction of five factors applicable in the study. Of the 38 items in the questionnaire, five of the items were extracted because they showed low factor loadings and low inter-item correlations and multiple or unstable loadings (Aldalaigan & Buttle 2002:369). The next section explains the procedure of assigning items to each factor of the five factors extracted.

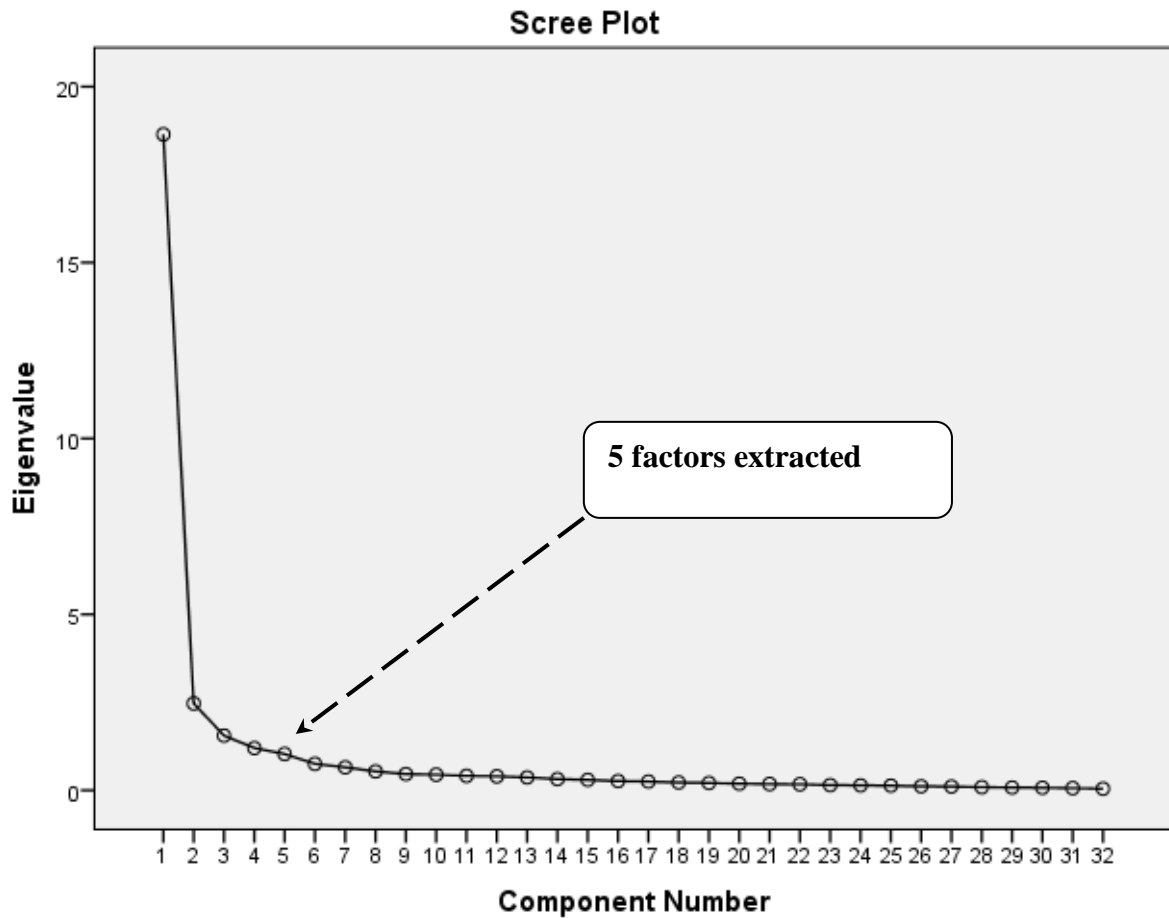


Figure 13: Scree plot with five factors

5.5.4 The five factors for the study

To assign the 38 items in the questionnaire to each of the five extracted factors the Principal Component Analysis (PCA) is utilised. The Principal Component Analysis resulted in five factors/dimensions for the study. In accordance with the PCA factor, loadings with the value of > 0.50 should be considered to be the threshold for the extraction. In this study they were used as a threshold for the extraction of factors and are therefore important (Uzoka, Shemi & Seleka 2007:6). Items associated with each factor that were below the threshold were disregarded because they had low factor loadings (< 0.50), low commonalities and multiple or unstable loadings (Coolidge 2006:365). Table 17 shows the PCA results for every item which include the loading values of > 0.50 and < 0.50 .

Table 17: Rotated factor loading matrix

	Factors				
	1	2	3	4	5
B1	.390	.814	.091	.082	.176
B2	.385	.851	.060	.088	.150
B3	.387	.797	.152	.180	.132
B4	.433	.650	.168	.296	.202
B5	.437	.682	.071	.236	.126
B7	.699	.390	.059	.336	.263
B8	.697	.353	.017	.259	.319
B9	.716	.459	.083	.280	.224
B11	.451	.257	.061	.095	.702
B12	.435	.206	.114	.757	.051
B13	.434	.255	.082	.783	.070
B14	.626	.357	.165	.500	.139
B15	.721	.343	.137	.178	.246
B16	.792	.331	.182	.210	.129
B17	.770	.233	.102	.261	-.033
B18	.733	.310	.128	.160	.126
B19	.656	.309	.336	.309	-.180
B20	.659	.304	.232	.287	.308
B21	.618	.329	.145	.252	.405
B22	.739	.217	.048	.140	.393
B23	.746	.350	.141	.249	.126
B24	.775	.330	.016	.203	.232
B26	.735	.270	.192	.324	.059
B27	.718	.315	.185	.209	.097
B29	-.074	.126	.291	-.005	.786
B30	.719	.260	.336	-.220	-.072
B31	.522	.112	.406	.246	.309
B32	.157	.037	.826	-.155	.278
B34	.150	.071	.868	.242	.039
B35	.127	.136	.823	.110	.189
B36	.400	.158	.356	.069	.606
B38	.688	.354	.225	.286	.196

Exhibited in Table 18 are the PCA results which include the loading values of >50 and their corresponding items.

Table 18: Rotated factor I

Rotated Factor Loading Matrix					
Items	Factors				
	1	2	3	4	5
B7	.699				
B8	.697				
B9	.716				
B14	.626				
B15	.721				
B16	.792				
B17	.770				
B18	.733				
B19	.656				
B20	.659				
B21	.618				
B22	.739				
B23	.746				
B24	.775				
B26	.735				
B27	.718				
B30	.719				
B31	.522				
B38	.688				
B1		.814			
B2		.851			
B3		.797			
B4		.650			
B5		.682			
B32			.826		
B34			.868		
B35			.823		
B12				.757	
B13				.783	
B14				.500	
B11					.702
B29					.786
B36					.606
Eigenvalue	18.64	2.46	1.55	1.20	1.03
% of Variance	58.26	7.72	4.86	3.75	3.22
Cumulative %	58.26	65.98	70.83	74.58	77.81

In Table 19 items B6, B10, B25, B28, B33, and B37 were removed from the factor matrix because they had low factor loadings below 0.50 and low commonalities. This resulted in 32 number items, loading onto 5 factors.

Table 19: Items removed from the factor matrix

Items	Items Description
B6	In our school, the budget assists in recognizing the need to build up reserves for major school projects
B10	The budget assists the school to determine the amount required to supplement the resources provided by the state
B25	Budget plans, policies and constraints are communicated to you verbally
B28	Being involved in the budget communication process distracts you from teaching
B33	The principal threatens to take action against educators if budget objectives are not met
B37	Co-ordination of budget activities is implemented in an open, fair, consistent, professional manner

5.5.5 Assigning labels, description of each factor and interpretation.

In this section the five factors extracted are assigned names, and each factor is described and the results per factor presented and interpreted. This will be followed by the presentation of frequency analysis of each item per factor to determine whether the budgeting process is implemented effectively at schools.

5.6 FACTOR 1: PARTICIPATION, COMMUNICATION AND BUDGET CONTROL

This factor relates to the participation of key stakeholders in the budgeting process. These stakeholders are deputy-principals, heads of departments, educators and parents. Parents are involved in the budgeting process through the finance committee. Communication during the budgeting process is vital in the effective implementation of the budgeting process. The budgeting control denotes the comparison of planned budget and actual budget or the comparison of revenue and expenditure. Table 20 shows the participation and comparison factor consisting of 18 variables which accounted for 58.26% of the variance with the

eigenvalue of 18.64. The items that loaded heavily on the factor are B9, B15, B16, B17, B18, B22, B23, B24, B27 and B30. Special attention should be paid to these items to ensure effectiveness of implementation of the budgeting process. The results show that the respondents agree that the involvement of key stakeholders in the budgeting process ensures effective implementation of the budgeting process. The results further confirm that effective implementation of the budgeting process stems from the comparison of the planned budget and the actual budget or the comparison of revenue and expenditure. Research indicates that reconciling income and expenditure leads to effective implementation of the budgeting process.

Table 20: Rotated factor loading for Factor 1: participation, communication and budget control

Items	Items description	Loading
B7	The school principal involves the subordinates in setting the budget objectives	.699
B8	The school principal involves the parents in setting the budget objectives	.697
B9	Subordinates participate in decisions on budget alternatives	.716
B14	Your school issues budget guidelines prior to preparing the budget	.626
B15	The school finance committee prepares the budget annually	.721
B16	The budget is compared to the income and expenditure on a monthly basis	.792
B17	The Budget Variance Report is presented to the SGB on a monthly basis	.770
B18	Bank statements are collected and reconciled on a monthly basis	.733
B19	Educators undergo skills development on financial management	.656
B20	Co-ordination among the various departments during budget execution is achieved	.659
B21	Budget control at your school helps measure efficiency in different departments of the school	.618
B22	Performance targets are set and made known in advance to participants	.739
B23	Benchmarks are developed to evaluate financial target achievements	.746
B24	The previous year's income and expenditure is compared to the	.775

	current year's income and expenditure to judge current budget performance	
B26	Budget plans, policies and constraints are communicated to you via a circulated document	
B27	You are allowed to comment on the budget plans, policies and constraints circulated to you	.718
B30	Communication about budgeting at your school takes place in a bottom-up approach	.719
B31	Budgeting motivates educators to achieve instructional goals	.522
B38	Co-ordination of budget activities is structured	.688

Table 21: Respondents' feedback pertaining to factor 1

Coded number(s) For questionnaire statements	Scales and percentages corresponding to each questionnaire statement					
	1 Strongly agree	2 Agree	<i>Cumulative percentages for Strongly agree & Agree</i>	3 Do not agree	4 Strongly Disagree	<i>Cumulative percentages for Do not agree & Strongly disagree</i>
B7	25.8%	29.9%	55.7%	29.4%	14.9%	44.3%
B8	23.6%	36.3%	59.9%	30.2%	9.9%	40.1%
B9	22.7%	28.9%	51.6%	33.5%	14.9%	48.4%
B14	19.3%	26%	45.3%	39.1%	15.6%	54.7%
B15	28.6%	38.1%	66.7%	15.9%	17.4%	33.3%
B16	22%	35.5%	57.5%	22.6%	19.9%	42.5%
B17	23%	19.7%	42.7%	40.4%	16.9%	57.3%
B18	25.4%	34%	59.4%	23.8%	16.7%	40.5%
B19	15.8%	13.7%	29.5%	40.5%	30%	70.5%
B20	11.2%	31.6%	42.8%	37.4%	19.8%	57.2%
B21	12.7%	33.3%	46%	39.7%	14.3%	54%
B22	13.4%	33.2%	46.6%	35.8%	17.6%	53.4%
B23	17.3%	22.2%	39.5%	42.2%	18.3%	60.5%
B24	23.9%	30.9%	54.8%	28.7%	16.5%	45.2%
B26	20.9%	25.1%	46%	38.5%	15.5%	54%
B27	19.5%	20.5%	40%	45.5%	15%	60.5%
B30	10.6%	20.2%	30.8%	39.4%	29.8%	69.2%
B31	7.6%	41.9%	49.5%	34.8%	15.7%	50.5%
B38	13%	38.5%	51.5%	33%	15.5%	48.5%

The items in Table 21 (B7 – B31) will not be discussed in this sequence. The items that fall under “*do not agree*” and “*strongly disagree*” scales are grouped together. This implies that B14, B17, B19, B20, B21, B22, B23, B26, B27, B30 and B31 are grouped together and are discussed as items belonging together. The findings of these items are illustrated later in Figure 14. Similarly, the items that fall under “*strongly agree*” and “*agree*” scales are grouped together. This means that items B7, B8, B9, B15, B16, B18, B24 and B38 are grouped together. These items are also discussed as items belonging together. The results for these items are exhibited in Figure 15. In the discussion that follows items that fall under “*do not agree*” and “*strongly disagree*” scales are discussed first and those that fall under “*strongly agree*” and “*agree*” scales are discussed last. This process of grouping items is followed for items pertaining to factor 1 only because it has many items. The grouping of these items will assist in the logical discussion.

5.6.1 Items in *Do not agree* and *Strongly disagree* scales for factor 1

The response in respect of questionnaire statement B14 (in Table 21) shows that a high cumulative percentage ($39.1\% + 15.6\% = 54.7\%$) of respondents does not agree that their schools issue budget guidelines prior to preparing the budget whereas a lower cumulative percentage ($19.3\% + 26\% = 45.3\%$) of the respondents agrees that their schools issue budget guidelines prior to preparing the budget.

It is further shown in Table 21 that a cumulative percentage ($40.4\% + 16.9\% = 57.3\%$) of respondents does not agree that the budget variance report is presented to the SGB on a monthly basis (questionnaire statement B17). Conversely, a cumulative percentage of ($23\% + 19.7\% = 42.7\%$) represents the respondents who agree that the budget variance report is presented to the SGB on a monthly basis.

The feedback in relation to questionnaire statement B19 as indicated in Table 21 shows that a high cumulative percentage ($40.5\% + 30\% = 70.5\%$) of the units of analysis does not agree that educators undergo skills development on financial management and a low cumulative percentage ($15.8\% + 13.7\% = 29.5\%$) of units of analysis agrees that educators undergo the skills development on financial management.

For questionnaire statement B20, in Table 21, a cumulative 57.2% ($37.4\%+19.8\%$) of units of analysis does not agree that co-ordination among various departments during the budget execution is achieved, whereas a cumulative 42.8% ($11.2\%+31.6\%$) of units of analysis agrees with the questionnaire statement.

A high cumulative percentage ($39.7+14.3\%= 54\%$), in relation to the questionnaire statement B21 as indicated in Table 21, represents respondents who do not agree that the budget control at their school helps to measure efficiency in different departments of the school. In contrast, a low cumulative percentage ($12.7\%+ 33.3\%= 46\%$) of participants agrees that the budget control at their school helps to measure efficiency in different departments of the school.

A high cumulative percentage ($35.8\%+ 17.6\%= 53.4\%$), as indicated in Table 21 in relation to questionnaire statement B22, represents the respondents who do not agree that the performance targets are set and made known in advance to participants whereas a low cumulative percentage ($13.4\%+ 33.2\%= 46.6\%$) is for those respondents who agree with the statement that the performance targets are set and made known in advance to participants.

The results in relation to questionnaire statement B23, as illustrated in Table 21, show that a cumulative percentage ($42.2\%+ 18.3\%= 60.5\%$) of units of analysis does not agree that the benchmarks are developed to evaluate the achievement of financial targets. In contrast, a cumulative percentage ($17.3\%+ 22.2\%= 39.5$) of the same selected units of analysis agrees with the statement that the benchmarks are developed to evaluate the achievement of financial targets.

The response for questionnaire statement B26 (in Table 21) is a high cumulative percentage ($38.5\%+15.5\%= 54\%$) from participants who do not agree that the budget plans, policies and constraints are communicated to them through a circulated document, whereas a low cumulative percentage ($20.9\%+ 25.1\%= 46\%$) of participants agrees that the budget plans, policies and constraints are communicated to them via a circulated document.

For questionnaire statement B27 in Table 21 the majority, cumulative ($45.5\%+15\%= 60\%$), of respondents disagrees that they are allowed to comment on the budget plans, policies and constraints circulated to them. In contrast, a cumulative 40% of respondents agrees that they are allowed to comment on the budget plans, policies and constraints circulated to them.

The results for questionnaire statement B30 as presented in Table 21 indicate a high cumulative percentage ($39.4\% + 29.8\% = 69.2\%$) of response from units of analysis who do not agree that communication about budgeting at their school takes place in a bottom-up approach whilst a low cumulative percentage ($10.6\% + 20.2\% = 30.8\%$) of units of analysis agrees that communication about budgeting at their school takes place in a bottom-up approach.

Table 21 further reflects that a slightly higher cumulative percentage ($34.8\% + 15.7\% = 50.5\%$) of respondents, in respect of questionnaire statement B31, do not agree that the budgeting process motivates educators to achieve instructional goals whilst a marginally lower cumulative percentage ($7.6\% + 41.9\% = 49.5\%$) of participants agrees that budgeting motivates educators to achieve instructional goals. These results are illustrated in Figure 14.

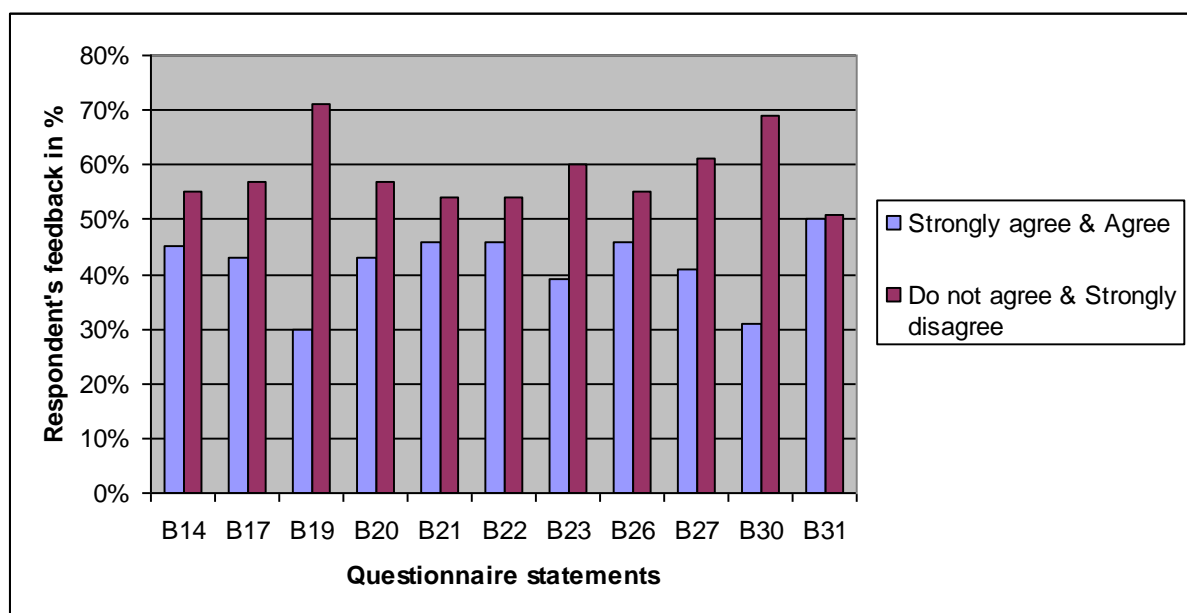


Figure 14: Responses pertaining to factor 1 (Do not agree & Strongly disagree scales)

Figure 14 clearly indicates that educators hold the view that they are not offered the opportunity take part in the budgeting process. The overall results presented from the graph in Figure 14 show that the majority of educators seem to disagree that co-ordination of budget activities is effectively implemented in their schools. Even though a higher percentage of respondents agrees that the co-ordination of budget activities is structured, the percentage

is marginally higher by three per cent. The structuring of the co-ordination of activities appears to exist on paper because the research participants' view is that the co-ordination of activities does not occur in an open, fair and professional manner. The fact that there is lack of openness, fairness and professionalism in the co-ordination of budget activities accounts for the failure to identify and resolve conflicts pertaining to the budget allocations between various departments in the schools. In all probability, the finding is that various departments in different schools are not absolutely coordinated in the execution of their budget activities.

As graphically illustrated in Figure 14, communication about budget plans and the *modus operandi* on budget activities seem to be a problem at schools. Limited communication, written or verbal, occurs between various departments and even between managers and their subordinates to synchronise efforts aimed at effective, if not efficient, budgeting process. Overtly, there is lack of communication resulting in budgeting plans not met, budgeting policies not implemented and budget limits being exceeded. The contention of participants is that communication channels in respect of the budget are virtually not opened across the school. There is neither a bottom-up nor top-down communication about budgets. In a nutshell, the budgeting process is unlikely to be effective without proper communication among key stakeholders at schools.

It is also apparent that if communication occurs it is restricted to certain levels of management, namely top-level managers (principals) and middle-level managers (deputy principals). Heads of departments and ordinary educators are excluded from communication about budgets.

The lack of communication about budgets reduces the motivational levels of heads of departments and ordinary employees at schools. Because budget plans are not communicated the attainment of the budget goal is non-existent or unknown. It is also possible that feedback pertaining to the efforts at actualising the budget plans will not be provided.

The overall results as presented in Figure 14 indicate that research participants, be they principals or ordinary educators are not motivated to take part in the budgeting process at various schools under study. In respect of educators, there is the general view that their involvement in the budgeting process does not in any way divert them from executing their core teaching activity. Even though the educators hold the contention that participation in the

budgeting process will not disturb their normal teaching activity, they are of the opinion that they are not offered opportunities to participate in the budgeting process. Lack of participation in the budgeting does not assist or motivate them to achieve their instructional goals. What this implies is that the budget fails to cater for the core business function of schools but concentrates on those functions that are non-core to the business of the schools.

Deducing from Figure 15, there is some semblance of agreement among participants that in the schools, a bank reconciliation is prepared on a monthly basis. Similarly, income and expenditure are compared. However, as indicated in Figure 14, resulting variances are not reported to stakeholders by school managers who seem determined to make financial reports a secret affair. To make matters worse, the financial targets are not set and made known to the relevant stakeholders, thus compounding the practice of 'own affair' in budgeting. Such practices eventuate in unsuccessful or inefficient and ineffective budgeting.

5.6.2 Items in *Strongly agree* and *Agree* scales for factor 1

For questionnaire statement B7 in Table 21, a cumulative 55.7% (25.8% +29.9%) of sampled respondents agrees that the school principal involves the subordinates in setting budget objectives. On the contrary, a slightly lower cumulative percentage [44.3 % (29.4% +14.9%)] of respondents does not agree with the questionnaire statement.

A higher percentage cumulative 59.9 % (23.6%+36.3%) of research participants for questionnaire statement B8 agrees that the school principals involve parents in setting the budget objectives, whilst a lower cumulative percentage (30.2% + 9.9%= 40.1%) does not agree with the statement (see Table 21)

The results pertinent to questionnaire statement B9 indicate that a cumulative 51.6% (22.7%+28.9%) of respondents agree that subordinates participate in decisions on budget alternatives. On the other hand, a cumulative 48.4% (33.5%+14.9%) of the units of analysis do not agree with the questionnaire statement.

The results according to Table 21, in relation to questionnaire statement B15, show that a cumulative 66.7% (28.6% +38.1%) of participants agree that the finance committee prepares

the budget annually and a cumulative 33.3 % (15.9%+17.4%) of the research participants disagree with the questionnaire statement.

The results in relation to the questionnaire statement B16, as in Table 21, show that a cumulative percentage of 57.5% (22%+ 35.5%) represents units of analysis who agree that the budget is compared to the income and expenditure on a monthly basis. On the other hand, a cumulative percentage of 42.5% (22.6%+ 19.9%) in respect of units of analysis do not agree that the budget is compared to the income and expenditure on a monthly basis.

The response in connection with questionnaire statement B18 reveals a cumulative percentage of 59.5% (25.4%+ 34.1%) from participants who agree that bank statements are collected and reconciled on a monthly basis (see Table 21), whereas a cumulative percentage of 40.5% (23.8%+ 16.7%) is for research participants who do not agree that bank statements are collected and reconciled on a monthly basis.

The results pertaining to questionnaire statement B24 (see Table 21) show that a high cumulative percentage (23.9%+ 30.9%= 54.8%) of respondents agrees that the previous year's income and expenditure is compared to the current year's income and expenditure to judge the current budget performance. A lower cumulative percentage (28.7%+ 16.5%= 45.2%) of participants does not agree with the questionnaire statement.

With respect to questionnaire statement B38, as shown in Table 21, a slightly higher cumulative percentage (13% + 38.5%=51.5%) of respondents agrees that co-ordination of budget activities is structured whereas a lower cumulative percentage (33% +15.5%=48.5%) of respondents does not agree that co-ordination of budget activities is structured. These results are illustrated in Figure 15.

Figure 15 indicates that the budget plays a major role in managing the income and expenditure at the schools. The budget for schools is prepared annually and bank statements are collected and reconciled monthly. It seems quite apparent that those involved in the budgeting process know exactly on which activities funds should be allocated. It is equally evident that those who participate in the budgeting process know in advance how many funds should be set aside for major schools' projects.

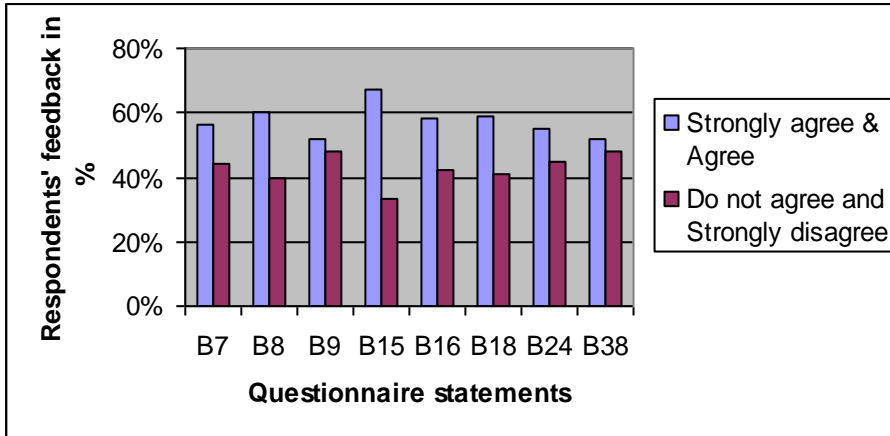


Figure 15: responses pertaining to factor 1 (Strongly agree & Agree scales)

Furthermore, both educators and parents take active participation in setting budget objectives. They, however, cannot decide on the choice of budget alternatives as it is explained later in this chapter. All these positive aspects occur because there is a structured coordination of budget activities.

5.7 FACTOR 2: BUDGET PLANNING

Factor 2 connotes planning for income and establishing the expenditure for a specific financial period. In Table 22 the factor comprises five items which accounted for 7.72 % with the eigenvalue of 2.46 (see table 18). These results affirm the view that an effective implementation of the budgeting process can be achieved when there is budget planning in the schools. The items B1, B2, and B3 in Table 22 are more loaded than others on the factor which makes them more critical for the effective implementation of the budgeting process.

Table 22: Rotated factor loading for Factor 2: budget planning

Items	Item Description	Factor Loading
B1	In our school, the budget helps to plan for the income and expenditure for the next year	0.814
B2	In our school, the budget assists the school to determine the amount required to supplement the resources provided by the state	0.851
B3	In our school, the budget provides a way of allocating expenditure to different school activities	0.797
B4	In our school, the budget serves as an instrument of controlling spending during the year	0.650
B5	In our school, the budget assists the school to arrive at a fair and equitable amount of fees to be charged	0.682

With respect to questionnaire statement B1, Table 23 indicates that the majority, a cumulative 67.7 % (22.6% +45.1%) of respondents agree that in their schools the budget helps to plan for the income and expenditure for the next year whereas a cumulative percentage of 32.3% (23.1% + 9.2%) represents participants who do not agree with the questionnaire statement.

Table 23: Percentage pertaining to factor 2

Coded number(s) for Questionnaire statements	Scales and percentages corresponding to each questionnaire statement					
	1 Strongly Agree	2 Agree	Cumulative percentages for Strongly agree & Agree	3 Do not Agree	4 Strongly disagree	Cumulative percentages for Do not agree & Strongly disagree
B1	22.6%	45.1%	67.7%	23.1%	9.2%	32.3%
B2	19.5%	55.4%	74.9%	17.4%	7.7%	25.1%
B3	26.7%	41%	67.7%	20.5%	11.8%	32.3%
B4	27.7%	39%	66.7%	25.1%	8.2%	33.3%
B5	24.6%	33.8%	58.4%	32.3%	9.3%	41.6%

The results in relation to questionnaire statement B2, as indicated in Table 23, show a high cumulative percentage (19.5%+55.4%=74.9% %) of sampled respondents who agree that the budget assists the school to determine the amount required to supplement the resources

provided by the state, while a low cumulative percentage ($17.4\% + 7.7\% = 25.1\%$) of participants does not agree to the questionnaire statement.

The response in relation to questionnaire statement B3 (see Table 23) shows a high cumulative percentage of 67.7 ($26.7\% + 41\%$) of the units of analysis who agree that the budget provides a way of allocating expenditure to different school activities whereas a low cumulative percentage of 32.3 ($20.5\% + 11.8\%$) represents units of analysis who do not agree that the budget provides a way of allocating expenditure to different school activities.

The feedback in relation to the questionnaire statement B4, as illustrated in Table 23, displays a cumulative percentage of 66.7% ($27.7\% + 39\%$) in respect of respondents who agree that the budget serves as an instrument of controlling spending during the year whilst a 33.3% ($25.1\% + 8.2\%$) cumulative percentage represents the respondents not agreeing that the budget serves as an instrument of controlling spending during the year.

The results in connection with the questionnaire statement B5, as shown in Table 23, present a high cumulative percentage ($24.6\% + 33.8\% = 58.4\%$) of participants who agree that the budget assists the school to arrive at a fair and equitable amount of fees to be charged whilst a low cumulative percentage ($32.3\% + 9.3\% = 41.6\%$) of respondents does not agree with the questionnaire statement.

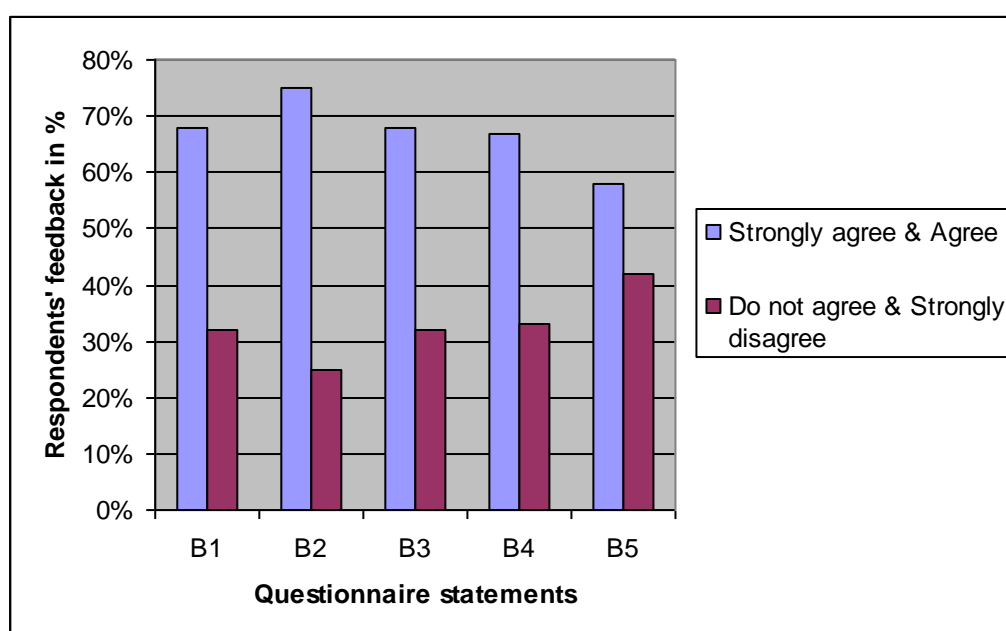


Figure 16: Responses pertaining to factor 2

Generally, Figure 16 illustrates that participants in all the schools that were selected out of the total population used in this research seem to either strongly agree or agree that the budget helps in planning. This view is confirmed by the findings that the budget planning has indeed assisted the schools in determining their income and expenditure for the year. All these positive points coupled with the knowledge of how much money will be required to supplement the resources provided by the government are sufficient evidence that an effort is made to implement the budgeting process effectively. The preparation of a budget assists schools in determining the amount of school fees learners should pay. These fees are charged in an equitable and fair manner.

5.8 FACTOR 3: REINFORCEMENT AND CORRECTIVE ACTIONS

The third factor was labelled reinforcement and corrective actions which imply that educators and principals are rewarded for achieving budget objectives. On the other hand, if the budget targets are not achieved, corrective actions should be taken.

Table 24: Rotated factor loading for Factor 3: reinforcement and corrective actions

Items	Items Description	Factor Loading
B32	The principal rewards educators for achieving budget targets	0.826
B34	The principal is rewarded for achieving budget targets	0.868
B35	The principal is threatened with action if budget objectives are not met	0.823

In Table 24 three variables were loaded onto this factor that accounted for 4.56 percent of the variance. The eigenvalue was 1.55. All three variables had high loadings on the factor matrix as shown in Table 18. This means that respondents agree that reinforcement and corrective actions are critical factors for the effective implementation of the budgeting process.

Table 25: Respondents' feedback pertaining to factor 3

Coded number(s) for Questionnaire statements	Scales and percentages corresponding to each questionnaire statement					
	1 Strongly Agree	2 Agree	<i>Cumulative percentages for Strongly agree & Agree</i>	3 Do not agree	4 Strongly Disagree	<i>Cumulative percentages for Do not agree & Strongly disagree</i>
B32	1.5%	13.1%	14.6%	42.7%	42.7%	85.4%
B34	3%	12%	15%	55%	30%	85%
B35	4.1%	16.2%	20.3%	54.3%	25.4%	79.7%

In respect of questionnaire statement B32 as illustrated in Table 25, a very huge cumulative percentage ($42.7\% + 42.7\% = 85.4\%$) of respondents does not agree that principals reward educators for achieving the budget targets whereas a lower cumulative percentage ($1.5\% + 13.1\% = 14.6\%$) of the respondents agrees that they are rewarded for attaining budget targets.

Results in respect of questionnaire statement B34 (as presented in Table 25) highlight that a high cumulative percentage ($55\% + 30\% = 85\%$) of units of analysis does not agree with the questionnaire statement that the principals are rewarded for achieving the budget targets. On the other hand, a low cumulative percentage ($3\% + 12\% = 15\%$) of units of analysis agrees with the questionnaire statement that the principals are rewarded for the attainment of the budget targets.

Lastly, the research data (as shown in Table 25) in relation to questionnaire statement B35 proves that a high cumulative percentage ($54.3\% + 25.4\% = 79.7\%$) of respondents does not agree that the principals are threatened with actions if the budget objectives are not attained, whereas a low cumulative percentage ($4.1\% + 16.2\% = 20.3\%$) of participants agrees that the principals are threatened with actions if the budget objectives are not achieved. The results for this factor are shown in Figure 17.

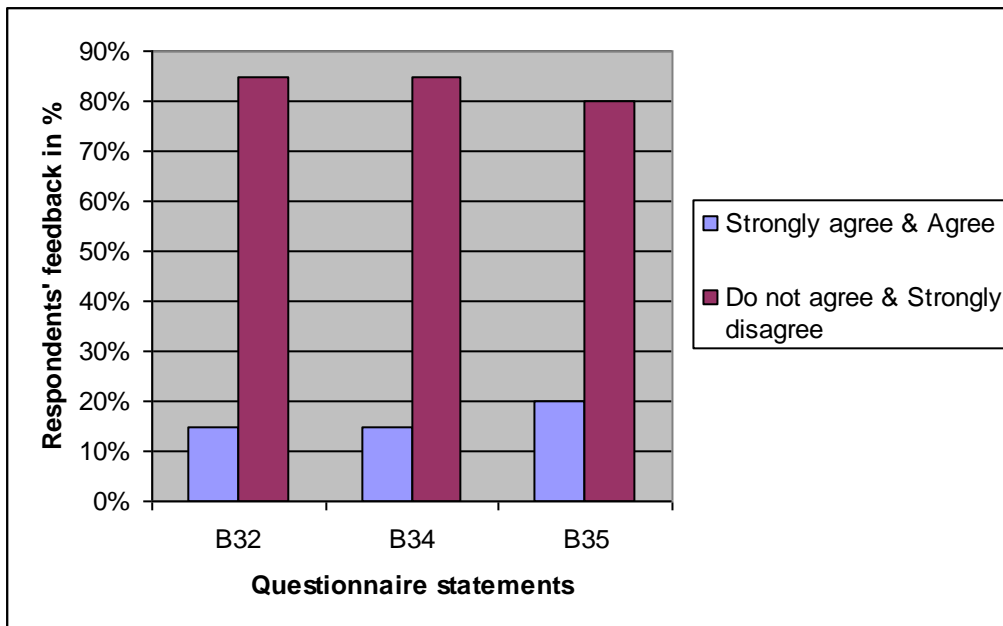


Figure 17: Responses pertaining to factor 3

Figure 17 illustrates that educators receive no incentives for efficient utilisation of their budget allocations. Failure to reward educators for using budgeted allocations efficiently fosters a culture of wastefulness. Lack of incentives for efficient use of budget allocations dampens the desire to take part in the budgeting process. Educators will consider budgeting as the top management affair in which their contribution would add no value to the management of schools or attainment of instructional goals. Nonetheless, the principals do not apply negative means like threats of dismissals if educators do not attain the imposed budget targets. It would be correct to state that lack of recognition of educators who attain budget targets means that those who fail to achieve budget targets may not be detected. Failure to be aware of the latter category of educators implies that no corrective actions are taken to improve their performance.

5.9 FACTOR 4: TRAINING AND DEVELOPMENT

The fourth factor was assigned the label of training and development. The contention is that those who participate in the budgeting process should be equipped with financial management skills in order to optimise their participation. Two factors were loaded onto this factor which accounted for 3.75 % of variance and recorded an eigenvalue of 1.20. Two items, B12 and B13 had high loadings, 0.75 and 0.78 respectively (see Table 18). The high

loadings confirm that respondents agree that training and development in aspects of financial management is a precondition for effective implementation of the budgeting process.

Table 26: Rotated factor loading for Factor 4: training and development

Items	Items Description	Factor Loading
B12	The school managers undergo skills development on financial management	.757
B13	The school finance committee undergoes skills development on financial management	.783

Table 27: Respondents' feedback pertaining to factor 4

Coded number(s) for Questionnaire statements	Scales and percentages corresponding to each questionnaire statement					
	1 Strongly Agree	2 Agree	<i>Cumulative percentages for Strongly agree & Agree</i>	3 Do not Agree	4 Strongly disagree	<i>Cumulative percentages for Do not agree & Strongly disagree</i>
B12	21.2%	26.9%	48.1%	38.9%	13%	51.9%
B13	18.3%	31.4%	49.1%	35.1%	15.2%	50.3%

Research data presented in Table 27 highlight that a high cumulative percentage ($38.9\% + 13\% = 51.9\%$) of respondents pertaining to questionnaire statement B12 does not agree that school managers undergo skills development on financial management whilst a low cumulative response percentage ($21.2\% + 26.9\% = 48.1\%$) of the participants agrees that school managers undergo skills development on financial management.

Table 27 further indicates that a slightly higher cumulative percentage ($35.1\% + 15.2\% = 50.3\%$) of respondents does not agree with the questionnaire statement B13 that the school finance committee undergoes skill development on financial management whilst a low cumulative percentage ($18.3\% + 31.4\% = 49.7\%$) of respondents agrees with the questionnaire statement.

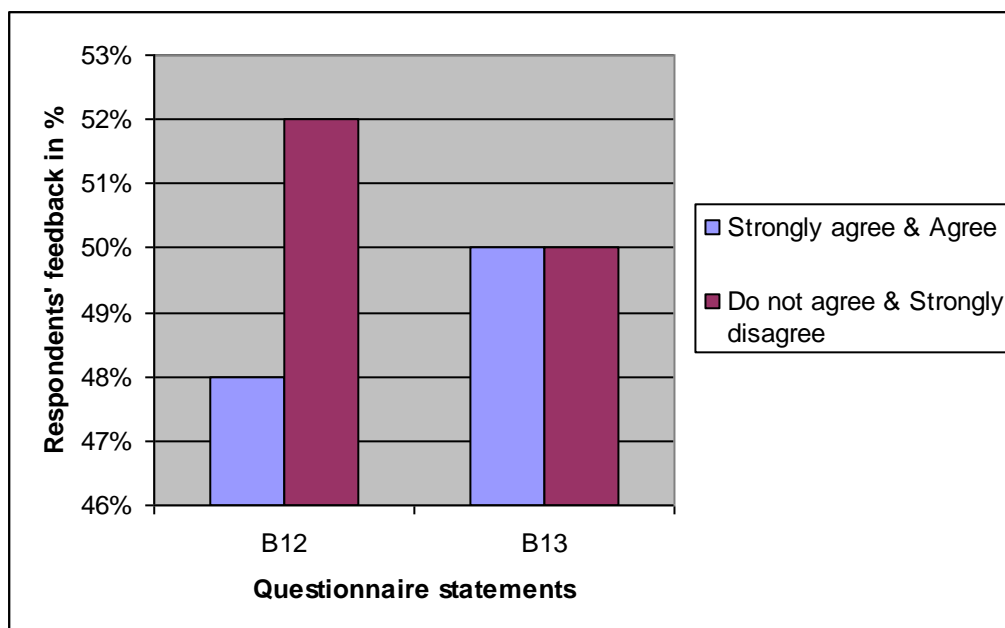


Figure 18: Responses pertaining to factor 4

The findings as presented in Figure 18 reveal that financial skills development is not provided in schools. Both educators and school managers are not empowered with financial management skills. The respondents are split on whether the school finance committee receives training on financial management. The general conclusion is that there are no skills transferred to participants in the budgeting process because the average percentage of respondents disagreeing with those disagreeing with the factor is higher (51.1%).

5.10 FACTOR 5: DECISION MAKING

The fifth factor was labelled decision making which describes the involvement of budget participants in making decisions about budget options. This factor also denotes whether there is a democratic environment allowing discussions on budget issues without imposing decisions on the participants to the budgeting process. Three factors were loaded on the factor matrix which yielded 3.22 % of variance and an eigenvalue of 1.03 (see Table 18). The implication from these results is that respondents believe that training and development in financial management results into effective implementation of the budgeting process.

Table 28: Rotated factor loading for Factor 5: decision-making

Items	Items Description	Factor Loading
B11	The parents participate in decisions on budget alternatives	0.702
B29	Communication about budgeting at your school takes place in a top-down approach	0.786
B36	Co-ordination of budget activities helps to identify and resolve conflict about budget allocation between various departments	0.606

Table 29: Percentages pertaining to factor 5

Coded number(s) for Questionnaire statements	Scales and percentages corresponding to each questionnaire statement					
	1 Strongly Agree	2 Agree	<i>Cumulative percentages for Strongly agree & Agree</i>	3 Do not agree	4 Strongly disagree	<i>Cumulative percentages for Do not agree & Strongly disagree</i>
B11	17%	30%	47%	42%	11%	53%
B29	11%	37%	48%	25%	27%	52%
B36	4%	35.2%	39.2%	40.7%	20.1%	60.8%

Table 29, in terms of questionnaire statement B11, reveals that a cumulative 47% (17%+30%) of respondents agree that parents participate in decisions on budget alternatives and a cumulative 53% (42%+11%) of the same respondents do not agree that they do participate in decisions on budget alternatives.

In respect of questionnaire statement B29, Table 29 reflects a lower cumulative percentage (11%+37%= 48%) of participants who agree that communication about budgeting at their school takes place in a top-down approach whilst a high cumulative percentage (25%+ 27%= 52%) of participants does not agree with the questionnaire statement.

A higher cumulative percentage (4%+35.2%= 39.2%) of respondents in questionnaire statement B36 does not agree that co-ordination of budget activities helps to identify and resolve conflict about budget allocation between various departments and a cumulative

60.8% (40.7%+20.1%) of respondents agrees that co-ordination of budget activities helps to identify and resolve conflict about budget allocation between various departments (see Table 28).

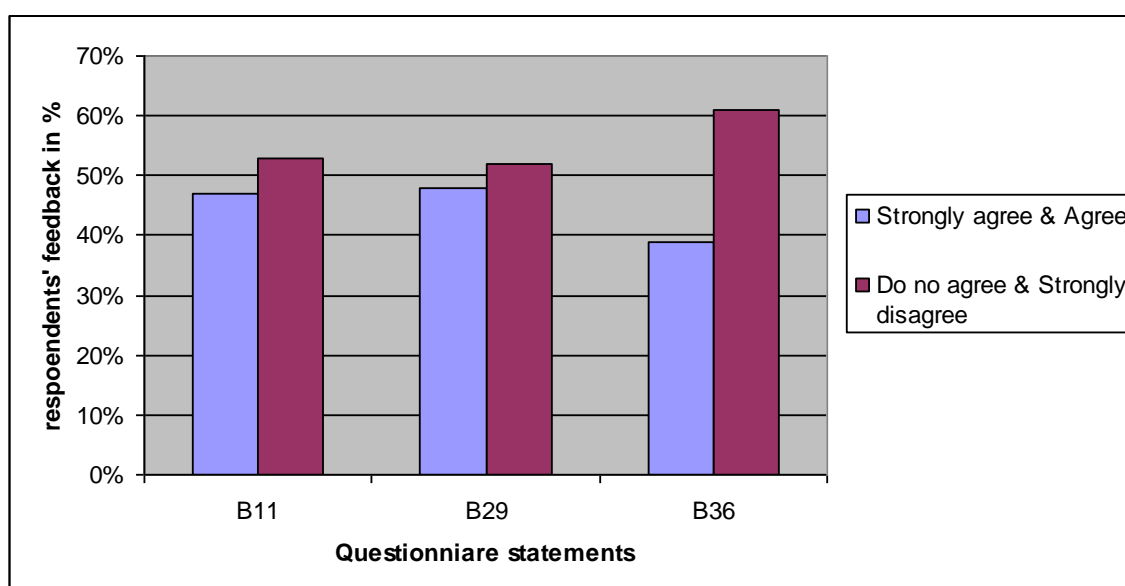


Figure 19: Responses pertaining to factor 5

Figure 19 shows that the participants in the budget do not have decision-making authority to influence the budget activities. They also do not have power to decide over which budget alternative to choose. They, therefore, cannot resolve any conflicts between departments over budget allocations.

5.11 CORRELATION ANALYSIS

The correlation analysis was performed to measure the relationship between the five factors in the study. These are the factors that were extracted using the exploratory factor analysis.

These factors are:

- Participation, communication and budget control (factor 1)
- Budget planning (factor 2)
- Reinforcement and corrective actions (factor 3)
- Training and development (factor 4)
- Decision making (factor 5)

The results of the correlation analysis are reflected in Table 30.

Table 30: Correlation analysis

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1	1.000	.791**	.534**	.774**	.648**
Factor 2	.791**	1.000	.397**	.603**	.551**
Factor 3	.534**	.397**	1.000	.429**	.614**
Factor 4	.774**	.603**	.429**	1.000	.480**
Factor 5	.648**	.551**	.614**	.480**	1.000

**Correlation is significant at the 0.01 level (2-tailed)

Table 30 indicates that correlation is significant at 0.01. Before an interpretation can be made of the correlation analysis results, it is critical to determine the strength of the relationship between variables. The relationship could be strong, moderate, weak or very weak. Table 31 shows specific *r*-values and their corresponding strength of relationship. Only factors that have a strong and moderate relationship with one another are discussed because there are no factors with a weak and very weak relationship.

Table 31: The strength of relationship between variables

The size of <i>r</i>	Interpretation
0.5 to 1.0	Strong relationship
0.3 to 0.5	Moderate relationship
0.1 to 0.3	Weak relationship
0.0 to 0.1	Very weak relationship

Source: Choudhury (2009:1)

5.11.1 The relationship between factor 1 (participation, communication and budget control) and factor 2 (budget planning)

In Table 31, there is a strong relationship between participation, communication and budget control, and budget planning ($r = .791$, $p < 0.01$). This means that where budget participants participate in the budgeting process, the budget planning improves. Participation and communication of budget participants in the budgeting process also improves the budget planning. Furthermore, if budget participants have participated in the budgeting process, and

have budget have been jointly developed and communicated, budget control is accomplished effectively. This means that budget participants are able to make a comparison of the income and expenditure or planned budget and the actual budget.

5.11.2 The relationship between factor 1 (participation, communication and budget control) and factor 3 (reinforcement and corrective action)

Table 31 further shows that a moderate relationship exists between participation, communication and budget control, and correction action ($r = .534$, $p < 0.01$). Implicit in the relationship is that participation in, communication during and budget control in the budgeting process contribute to meeting of budget targets which will be reinforced through rewards. Conversely, the lack of participation, communication and budget planning during the budget process lead to non-achievement of budget objectives in which case corrective actions should be taken.

5.11.3 The relationship between factor 1 (participation, communication and budget control) and factor 4 (training and development)

In Table 31 a strong relationship is also observed between participation, communication and budget planning, and training and development ($r = .774$, $p < 0.01$). Significant in this relationship is that budget participants should be trained and developed in order to maximize their participation in the budgeting process. Budget participants with financial management skills become better communicators during the budgeting process, in addition to making effective budget plans.

5.11.4 The relationship between factor 1 (participation, communication and budget control) and factor 5 (decision making)

Table 31 demonstrates that a strong relationship exists between decision making and participation and comparison ($r = .648$, $p < 0.01$). Budget participants who have decision-making powers are encouraged to take part in the budgeting process because they know they can influence the budget activities. Because they know that they wield decision-making powers on budget allocations, budget participants are encouraged to voice their ideas during the budgeting process and make effective budget plans.

5.11.5 The relationship between factor 2 (budget planning) and factor 3 (reinforcement and corrective actions)

Reflected in Table 31 is the moderate relationship between budget planning and reinforcement and corrective action ($r = .397$, $p < 0.01$). These results indicate that where there is budget planning it is feasible to evaluate if those budget plans have been attained. The failure to attain the budget plans could result in corrective actions being taken. In contrast, the attainment of budget plans should be followed with reinforcement through rewards or other relevant means.

5.11.6 The relationship between factor 2 (budget planning) and factor 4 (training and development)

It can be viewed from Table 31 that a strong relationship ($r = .603$, $p < 0.01$) is also found between budget planning and training and development. The result could be interpreted to mean that budget participants who are trained and developed in aspects of financial management make effective budget plans.

5.11.7 The relationship between factor 2 (budget planning) and factor 4 (decision making)

Table 31 illustrates a moderate relationship ($r = .551$, $p < 0.01$) exists between budget planning and decision making which is a clear indication that budget participants with decision-making powers develop a keen interest in budget planning. This interest stems from the knowledge that they will eventually decide on viable budget options or alternatives.

5.11.8 The relationship between factor 3 (reinforcement and corrections actions) and factor 4 (training and development)

Reinforcement and corrective actions have a moderate ($r = .429$, $p < 0.01$) relationship with training and development (see Table 31). It can be deduced from the results that budget participants who are trained and developed in financial management may attain budget objectives or targets and therefore get rewarded for the achievement. The opposite may also

be true, where lack of financial skills is likely to lead to non-attainment of budget objectives, thus corrective actions should be taken, through training and development.

5.11.9 The relationship between factor 3 (reinforcement and corrective action) and factor 5 (decision making)

A strong relationship ($r = .614$, $p < 0.01$) exists between reinforcement and corrective actions, and decision making (see Table 31). The budget participants who make effective decisions about budgets are rewarded, whereas those who are involved in ineffective decisions are subjected to corrective actions.

5.11.10 The relationship between factor 4 (training and development) and factor 5 (decision making)

It can be demonstrated from Table 31 that a moderate relationship ($r = .480$, $p < 0.01$) is also found in the relationship between training and development, and decision making. Implied in this relationship is that budget participants who are trained and developed in financial management can make budget participants into effective decision makers in the budgeting process.

5.12 RELIABILITY

Reliability denotes that the research instrument should produce the same results when measurement is repeated. The internal reliability of a research instrument can be measured by means of Cronbach's alpha coefficient. The items in the research instrument should show similarity among themselves because they are actually measuring one construct (Gray, Williamson, Karp & Dalphin 2007:11). According to Maree *et al.* (2008:216) items with the scores of 0.95 have a high reliability; those with the scores of 0.80 have a moderate reliability; and the ones with scores of 0.70 have a low reliability. The 38 questionnaire statements in section B of the questionnaire yielded Cronbach's alpha coefficient of 0.974. This is an indication that the research instrument in this study is highly reliable. The piloted questionnaire, for both items in Section A and Section B, produced the Cronbach's alpha coefficient value of 0.975 which is also an indication that the research instrument is highly reliable.

The reliability of factors derived from section B of the questionnaire was also tested. The reliability scores of each factor and the overall reliability score are shown in Table 32.

Table 32: Reliability of the factors

Factors extracted from the questionnaire	Cronbach's alpha coefficient values	Number of items per factor
Factor 1: Participation, communication and budget control	.977	19
Factor 2: Budget planning	.924	5
Factor3: Reinforcement and corrective actions	.891	3
Factor 4: Training and development	.898	2
Factor 5: Decision making	.740	3
Overall scale reliability	.975	32

Table 32 illustrates that the factors extracted from the items in the questionnaire are reliable as they each have Cronbach's alpha coefficient score above 0.70 and the overall Cronbach's alpha coefficient value is 0.975. This means that the factors are collectively reliable.

5.13 VALIDITY

Validity is defined as “the fit between the concept that the researcher wants to examine and the evidence for that concept” (Gray *et al.* 2007:12-13). In other words validity is a test that determines whether the research instrument measures what it purports to measure. In this study the three types of validity tests were conducted: content validity, construct validity convergent validity.

5.13.1 Content validity

In Chapter 4 it was indicated that the content validity seeks to determine whether the research items in the research instrument sufficiently cover the content area it seeks to measure (Lodico, Spaulding & Voetgle 2010:99). In this study content validity examines whether items in the questionnaire in Appendix E sufficiently covers the budgeting process. To measure this validity the piloting of the questionnaire was conducted by issuing the questionnaire to 20 respondents in pilot schools (see section 4.3 of Chapter 4). The

respondents understood the items in the questionnaire and no items were changed. The questionnaire was also submitted to the supervisor of the student for this research, who is an expert in the budgeting process, and who indicated satisfaction with the areas covered by the item in the questionnaire.

5.13.2 Construct validity

Construct validity examines the extent to which the research instrument measures the construct (De Vos *et al.* 2002:167). It could also mean the degree to which a group of related items in the research instrument measure the construct(s) (Mustafa 2010:222). Construct validity can be measured by statistical techniques such as factor analysis and item analysis (Maree *et al.* 2008:217). The construct validity in the study was determined by using Cronbach's alpha values and exploratory factor analysis (see sections 5.2-5.5 in this chapter).

5.13.3 Convergent validity

Convergent reliability refers to the extent to which constructs that are measured are related. It connotes the degree of correlation of different measures measuring the same construct (Lodico *et al.* 2010:99). In this study Pearson's correlation coefficient was utilised to measure the degree of correlation between the five factors. All the correlations were significant at $p < 0.01$ (see section 5.11 of this chapter).

5.14 CONCLUSION

In this Chapter results and findings were presented. The biographical items in section A of the questionnaire were described. The items in section B of the questionnaire were subjected to factor analysis in order to extract the factors. The eigenvalues of the factors were calculated. The factor loading matrix was computed to identify appropriate items for each factor. The items were analysed using frequencies in respect of each factor, and the results of the frequency analysis were graphically illustrated. At the end, correlation analysis for the factors was conducted to determine the relationship between them. It was indicated how validity and reliability were measured.

In the next chapter the summary of the study is provided and key findings are outlined. The next chapter also offers conclusions and recommendations for the study.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

The previous chapter presented the respondents' feedback (report) on the questionnaires which were issued to participating public secondary schools in District 7 and District 8 , Gauteng South Region. A summary explanation and report for each research objective was discussed, analysed and interpreted. The results were presented graphically. This chapter presents the overview of the study, conclusions drafted per research objective and recommendations made on research findings.

6.2 OVERVIEW OF THE STUDY

This section of chapter 6 offers a summary of the whole study. The chapter entails summaries of Chapters 1, 2, 3, 4 and 5. In Chapter 6 the research findings are presented. The conclusions and recommendations for each research objectives that were outlined in Chapter 1 are also presented.

6.2.1 In Chapter 1 the problem statement for the study was outlined which indicated the need to conduct the study. The research objectives for the study were highlighted and research methodology explained (refer to page 1-7).

6.2.2 Chapter 2 revolves around on the literature review of the budgeting process of public secondary school. Before the budgeting process activities were discussed, clarification of concepts such as the budget, a public secondary school, a principal, a deputy principal, a head of department, an educator and a parent was provided. The budgeting process involves activities such as budget planning, employee participation in the budgeting process, co-ordination of activities, communication, motivation and budget control. Each activity was fully discussed (refer to pp. 8-39).

6.2.3 Chapter 3 focused on the types of budgets that can be used in public secondary schools in order for the budgeting process to be effective, economical and efficient. Concept

clarification was given on the types of budget such as a master budget, an incremental budget, a zero-base budget, a programme budget, an expense budget and an activity-based budget. A master budget is divided into operational and financial budgets. The operating budget which consists of sales or revenue, production, direct material, direct labour, manufacturing overheads and budgets such as cash, capital, pro-forma statement of comprehensive income and pro-forma statement of financial position was fully discussed (refer to pp. 40-64).

6.2.4 In Chapter 4 the sampling procedure was elaborated upon. The procedure consisting of such factors as identifying the target population, determining the sampling frame, selecting sampling procedures and determining the relevant sample size, were described. The manner in which research data was obtained was discussed under the research design heading. The method of data collection, such as the questionnaire was discussed as well. Furthermore, the conducting of the pilot study was explained. The statistical method that was used for analysing was described. Definitions of different forms of validity and reliability were defined (refer to pp. 65-75).

6.2.5 Chapter 5 presented the respondents' feedback on the research questionnaire which were handed to research participants in public secondary schools in District 7 and District 8 of the Gauteng South Region. A frequency table was used as an aid to analyse and interpret the respondent's feedback. The exploratory factor analysis, the frequency analysis and the correlations analysis were used to analyse the data. Data were presented in tables and charts to facilitate a meaningful interpretation of them.

The following research findings were identified.

6.2.5.1 The budget planning is executed at schools. This view is confirmed by the findings that the budget planning has indeed assisted the schools in their income and expenditure for the year. In fact, in all the sampled schools the units of analysis tend to hold the notion that budgets are prepared annually.

6.2.5.2 Coordination remains a challenge and its lack leads to ineffective application of the budget process. Research participants' view is that the co-ordination of activities does not occur in an open, fair and professional manner.

6.2.5.3 Communication seems to be major problem during the budget process which

impeded the effective application of the budgeting process. Limited communication, written or verbal, occurs between various departments leading to ineffective application of the budgeting process.

6.2.5.4 Those that participate in the budget process lack the motivation to do so, thus compromising the budget process.

6.2.5.5 Training on financial management is not offered to those involved in the budgeting process, hence the ineffective application of the budgeting process.

6.2.5.6 The major problem found in this study is the fact the financial targets are not set and made known to participants in the budgeting process. The second most prominent problem is that deviations are not reported to the parties concerned, and this could result in conflict and untrustworthiness among budget participants, thus jeopardizing the budgeting process.

6.2.5.7 Results presented in Chapter 5 revealed that budget planning is done in schools. As a result it helps in allocating expenditure to different school activities.

6.2.5.8 Due to the budget planning the schools charge a fair and equitable amount in fees.

6.2.5.9 Budget planning in schools results in savings for schools' projects, like financial assistance to needy learners in a specific budget period.

6.2.5.10 Budget planning also enables the calculation of the amount required to supplement the resources provided by the government.

6.2.5.11 There is a problem in implementing budget control in schools.

6.2.5.12 Lack of control in different departments results in conflicts among budget participants.

6.2.5.13 There is evidence to prove that having planned their budget, schools fail to monitor spending, so that they can spot any variances, significant or insignificant, to the planned budget.

6.2.5.14 Strong and moderate correlations exist among the five factors extracted through the exploratory factor analysis. These five factors are participation, communication and budget control, budget planning, reinforcement and corrective action, training and development, and decision making (see section 5.11)

6.2.5.15 There is lack of participation of educators in the budgeting process.

6.2.5.16 Income and expenditure are not reported and no corrective action is taken when variances occur.

6.2.6 In Chapter 5, a summarized explanation for each research objective was discussed. The reports per research objectives were analysed and interpreted. The results were also presented graphically. The researcher analysed and interpreted the respondents' feedback in relation to each research objective (refer to pp.76-107).

6.2.7 In Chapter 6, conclusions and recommendations in respect of each research objective were made. The future research opportunities were identified (refer to pp. 108 - 120).

6.3 CONCLUSIONS PER RESEARCH OBJECTIVE

In this study the focus was on the budgeting process of public secondary schools in the Gauteng South Region, specifically in the Vaal Triangle area. In this chapter, the conclusion on each research objective will be provided.

6.3.1 Research objective 1:

The first research objective referred to is the “*extent to which school management and subordinates review the various budget options.*”

The most important or first activity in the budgeting process is the budget planning which involves setting budget objectives, reviewing budget options and involving budget participants in the process. This activity provides assistance in allocating income and expenditure. A budget is prepared either annually, quarterly or on monthly basis. The response from research participants for this research objective proved that budget planning is the key for an effective and efficient budgeting process and is engaged upon in schools. This view is confirmed by the findings that budget planning has indeed assisted the schools in their income and expenditure for the year. In all the sampled schools the units of analysis tend to hold the notion that budgets are prepared annually.

Drudy (2001: 279) and Magner *et al.* (2006: 409) support the notion that budget planning is an effective tool for good management in all types of organisations, including schools. Lucey (2002: 385) and Weetman (2003: 633) hold the view that a properly planned budget is one in

which principals, subordinates and parents jointly set budget objectives and decide on budget options.

6.3.2 Research objective 2:

The research objective referred to in this section is the “*extent to which school management co-ordinate budget activities.*”

According to the literature, co-ordination is a structure that is formed to indicate how the budget activities should be implemented in order to reach the organizational goal. This process takes place by assigning authority and responsibility to individuals who are involved in the budgeting process. It is structured to be used as a tool to motivate individuals who are involved in a budgeting process to work together and to avoid conflict. The overall results pertaining to this research objective indicate that the respondents seem to disagree that co-ordination of budget activities is effectively implemented in their schools.

The structuring of the co-ordination of activities appears to exist on paper. The research participants’ view is that the co-ordination of activities does not occur in an open, fair and professional manner. The fact that there is lack of openness, fairness and professionalism in the co-ordination of budget activities accounts for the failure to identify and resolve conflicts pertaining to the budget allocations between various departments in the schools. In all probability, the finding is that various departments in different schools are simply not coordinated in the execution of their budget activities.

It has been accounted that the inculcation of and the establishment of an open, fair and professional culture and environment in the execution of budget activities translates into healthy relations between various departments. The transparent fashion in which budget activities are coordinated or carried out obviate potential conflicts or political infighting relating to budget allocations between various departments (Newcombe *et al.* 1997: 99). Where improved relationships are forged between various departments, principals may be “restrained from building their empires” (Drudy 2001: 284).

6.3.3 Research objective 3:

The research objective under scientific scrutiny in this section is “*the extent to which plans, policies and constraints are communicated to lower management and staff.*”

Communication plays a vital role in the budgeting process. The co-ordination of budget activities will not be in harmony for reaching an organisations’ goal and will fail to be properly implemented if there is no communication among different departments to which budget activities are assigned. The organisation’s plans, policies, guidelines of budget take place through communication. Communication should be positive, transparent and be in the best interest of the school. Based on the feedback from research participants, communication about budget plans and on budget activities seem to be a problem at schools. Limited communication, written or verbal, occurs between various departments and even between managers and their subordinates to synchronize efforts aimed at effective, if not efficient budgeting process. The lack of communication results in budgeting plans not being met, budgeting policies not implemented and budget limits being exceeded. The report from research participants in regards to this research objective has indicated that communication channels are not properly followed. There is neither a bottom-up nor top-down communication about budgets.

Effective communication that translates into effective budgeting is characterised by specifying clear budget guidelines so that each department and level of management at schools takes the required and informed actions aimed at achieving the school’s budget goals, plans within parameters of policies and constraints (Barsky & Bremser 1999: 12; Needles *et al.* 1999: 906).

The budget plans and policies should be communicated to lower levels of managers and educators in order to optimise their participation in financial decision-making process (Goodwin & de Gouw 1997: 180; Hansen & Mowen 2000a: 268).

6.3.4 Research objective 4:

The research objective relates to “*the extent to which school managers use budgeting as a motivational tool.*”

The results from research participants reveal that there is lack of motivation for the effective application of budgeting. The cause of lack of motivation results from the lack of communication about budget plans, policies, objectives or goals and constraints at schools. If budget participants are not motivated, that could have an impact in the budgeting process and could lead to the budget process being inefficient, ineffective, and uneconomical.

In similar vein, principals are not incentivised for attainment of budget targets nor threatened for failing to achieve the set budget targets. The situation wherein both principals and educators are not encouraged to spend allotted funds cautiously encourages mismanagement of funds and lack of accountability.

If principals and educators are to be motivated to be involved in budgeting, authorities have to encourage them to make inputs in the setting of budget targets. Evidence suggests that consultation with principals and educators in determining budget targets leads to satisfaction and motivation while the opposite holds true (Drudy 2001: 284-285; 2002: 347). Motivation can further be enhanced if principals are incentivised for achieving budget targets instead of being coerced or threatened (Weetman 1996: 439; McLeary 1999: 465; Vigario 2005: 232).

6.3.5 Research objective 5

The empirical objective of this study was *“to determine the extent to which the school managers take corrective actions in the event of budget deviations.”*

Based on the literature, the budgetary control process helps schools to determine if there is correlation between budget planning and budgetary control. Budgetary control assists with setting of financial targets. Where the budget results differ from planned budget the deviation whether favourable or unfavourable, should be reported to the concerned parties. Where the deviation is unfavourable the cause of the deviation should be determined and an investigation should be conducted. In a case where deviation is favourable it should serve as a motivation for parties involved in budgeting process to want to participate more in the budgeting process. Taking corrective action helps to avoid problems associated with over-budgeting and under-budgeting. The former could lead to budget deficit and the latter could result into budget surplus.

Results from research participants showed that the schools' bank reconciliation is prepared on a monthly basis and income and expenditures are compared. The first problem is that the financial targets are not set and made known to them. The second problem is that deviations are not reported to the parties concerned, and this could result in conflict and untrustworthiness among budget participants.

To cap everything, benchmarks are not developed so as to inform a school manager of his/her schools' financial performance in relation to the financial performance of other schools. Financial practices of this nature engender low morale among the educators.

A comparison of the planned budget and actual budget is the bedrock of sound financial management on which the financial accountability and sustainability of schools hinges. Through this useful exercise school managers are able to control future operations in their schools. It is again through this practice that school managers will be able to take corrective actions to eradicate problems emanating from such comparisons (Joshi *et al.* 2003: 738).

Through budget control school managers are able to enhance communication between various departments and improve efficiency in those. In a nutshell, budget control should foster the practice through which various departments gauge the extent to which actual budget varies from planned budget (Dyson 2004: 378).

Results presented in Chapter 5 revealed that budget planning is done in schools. As a result it helps in allocating expenditure to different school activities. The budget assists the school to arrive at a fair and equitable amount of fees to be charged. Because of effective budget planning in schools, they are able to save for the schools' projects. School managers can calculate in advance the amount required to supplement the resources provided by the state. With all the aforementioned advantages, good budgetary practice notwithstanding, there is a problem of failure to implement budget control in different departments of schools.

Lack of control in different departments results in conflicts among budget participants. The cause of lack of control is the lack of communication and lack of motivation and co-ordination among budget participants. If budget plans, policies and constraints are communicated and budget targets are set and made known to budget participants in advance, such process could lead to different departments working in harmony.

If participants in the budgeting process allocate funds properly for specific school projects, save up funds in reserves for certain school projects, they can determine with accuracy the amount required to complement government resource supplements. The schools should be able to determine with precision the amount of school fees payable by learners. Schools charge fair and equitable school fees, fair in the sense that every learner pays what the other learner is paying in the same school and equitable because the school fees paid and the school fund generated are compatible with school activities and projects to be engaged upon in the relevant financial year.

Irrespective of the aforementioned commendable practices, the results suggest that there are deficiencies pertaining to control of schools' departmental budgets. The point regarding the lack of effective budgetary control measures has earlier been mooted in this chapter. There is evidence to prove that having planned their budget appropriately schools fail to monitor spending in order to notice any variances, significant or insignificant, from the planned budget. The failure to implement an effective budget control system, irrespective of sterling budget planning, would always result in schools experiencing financial debacles. A budget control system has been found to provide yardsticks by which various departments of the school can be measured, thereby improving the effectiveness and efficiency of the departments. The combined financial effects of effective and efficient budgeting of various departments are phenomenal for schools (Dyson 2004: 378).

6.3.6 Research objective 6

The research objective *“the extent to which school managers and educators receive appropriate training in financial management.”*

With this research objective the researcher's aim was to determine if training on financial management was provided so that the participants in the budgeting process are equipped with the requisite financial skills to implement the budgeting process effectively. The findings as presented in Chapter 5 show that financial skills development is not provided in schools. Lack of skills in finance could lead to budget participants being demotivated or frustrated when participating in the budgeting process.

Generally, it can be concluded that participants in the budgeting process are not empowered to do budgeting. Lack of financial management skills has a major negative impact on the budgeting process in the schools. If the schools' finance committees, school managers and educators are not fully equipped with financial management skills this could result in ineffective budgeting.

If managers undergo skills development in financial management they will be knowledgeable about the significance of budgeting and budgetary control system (Scott 2001: 255). Empowerment of managers on the budgeting process has the potential to enhance the control managers have over their jobs and working environment (Yuen 2004: 524).

6.4 RECOMMENDATIONS

In this section the recommendations of the study are made for each research objective. The recommendations cover the research objective 7 formulated Chapter 1.

6.4.1 Research objective 1:

It is very important that schools always follow the budgeting process during the preparation of budgets. In that way it will help them to identify their weaknesses and the strengths in budget preparation. Based on research conducted for this research objective, it is recommended that the schools must continue to follow budgeting process for every budget period and find ways of improving more on the good work done for the process to be effective and efficient.

6.4.2 Research objective 2 and 3

For budget planning, which is an important step in the budgeting process, to be a success in schools, communication and coordination of such budget plans should be implemented. Management in schools should learn to be open and communicate responsibilities assigned to budget participants. Policies and constraints should be made known to different departments so that each department should know what is expected from them. The process will assist the budget participants in different departments to compile their budgets. Coordination of the

budget process should be structured in such a manner that budget participants in each department communicate with each other.

6.4.3 Research objective 4

School management should find ways of motivating budget participants. If budget participants are not motivated the budgeting process can never be effective, economic and efficient. Motivation can take place by involving budget participants in decision making during the budgeting process and providing support in cases where budget objectives have not been met. Those involved in the budgeting process should be trained and developed in financial management.

6.4.4 Research objective 5

The budgeting process in schools should be an open and fair process where budget participants are free to discuss and report on the good and the not-so-good experiences during the process. For the budget control to be successfully implemented, budget guidelines, policies, targets and constraints should be communicated to budget participants. In that case the participants will know in advance what is expected from them. The process will help in communicating and reporting the variances that may occur in the budgets.

6.4.5 Research objective 6

The finance committees should undergo training on financial management. The skills could be provided by holding workshops or allowing one or two members to attend short courses in financial managements who, upon returning, could provide lessons in financial management. It is important that skills on financial management are provided to educators and relevant members of the SGB.

On the whole, for a budgeting process to be effective, efficient budget planning and control plays a major role in the process and can only be successful by communicating, motivating and co-ordinating of budget activities among different departments. Meetings should be held by different departments before the budget period to discuss the priorities and the needs for each department so that compromising on departmental needs could take place. This

process's aim should be towards reaching the school's goals through effective budgeting characterised by fewer, and/or manageable conflicts.

For a budgeting process to be effective and efficient schools have to know that planning and control work hand in hand. If one of the two is not successfully implemented the process could be a waste of time. Budget control should not be used as a tool to make budget participants feel guilty if a budget target has not been reached.

6.5 FUTURE RESEARCH OPPORTUNITIES

This section of the research uncovers possibilities of further research to expand on this research.

- Further research opportunities in expansion to this study could be conducted by comparing the application of the budgeting process between rural and urban schools.
- Further research could be undertaken to compare the application of the budgeting processes of schools of one province with schools of another province.
- Inter-metro comparison of schools could be carried out on the application of the budgeting process.
- A longitudinal study of the budgeting process for rural, urban, province or metropolitan schools could be carried out.

6.6 CONCLUDING REMARKS

In this chapter the summary of the study was presented. The findings about application of the budgeting process in public secondary schools have been discussed and recommendations have been made based on the research findings. The conclusions in respect of each research objective were arrived at. The future research opportunities were also outlined.

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APPENDIX A

District 7 (D7)

NAME OF PUBLIC SECONDARY SCHOOL	NUMBER OF EDUCATORS
1.General Smuts High School (former model C)	70
2.Hoer Tegniëse Skool Vereneëging (former model C)	36
3. Hoër Volksskool Heidelberg (former model C)	44
4. Hoërskool Dr Malan (former model C)	40
5. Hoërskool Drie Riviere (model C)	36
6. Hoërskool Overvaal (model C)	28
7. Hoërskool Vereeniging (model C)	37
8. Isizwe-Setjhaba Secondary School	22
9.New Ratanda Secondary School	40
10.Khanya-Lesedi Secondary School	45
11.Lekoa Shandu Secondary School	34
12.Meyerton High School	29
13.Mohloli Secondary School	43
14.Ratanda Secondary School	40
15.Riverside High School (modelC)	40
16.Roshnee Secondary School	19
17.Rusoord Secondary School	42
18.Thuto Lore Secondary School	37

APPENDIX B

District 8 (D8)

NAMES OF PUBLIC SECONDARY SCHOOLS	NUMBER OF EDUCATORS
1.Beverly Secondary School	70
2.Boikghethelo Secondary School	20
3.Botebo-Tsebo Secondary School	56
4.Dinokaneng Secondary School	36
5. E.D Mashabane Secondary School	28
6. Esokwazi Secondary School	56
7. Fundulwazi Secondary School	42
8. Hoërskool Tegniese De Wet (model C)	42
9. Hoërskool Driehoek (model C)	42
10. Hoërskool Suiderlig (model C)	39
11. Hoërskool Transvalia (modelC)	42
12. Hoërskool Vanderbijlpark (model C)	28
13. Jet Nteo Secondary School	39
14. Jordan Secondary School	42
15. Katleho-Impumelelo Secondary School	42
16. Kgokare Secondary School	28
17.Khutlo-Tharo Secondary School	56
18.Lakeside Secondary School	39
19.Lebohang Secondary School	42
20.Mahareng Secondary School	42
21.Maxeke Secondary School	56
22Mohaladitwe Secondary School	41
23.Mopholosi Secondary School	42
24.Moqhaka Secondary School	26
25.Moshate Secondary School	37
26.Prestigious Aureate High School	35
27.Poelano Secondary School	28
28.Qedilizwe Secondary School	28
29.Ramolelle Secondary School	17
30.Ramosukula Secondary School	09
31.Resendintia Secondary School	56
32.Rutasetjhaba Secondary School	56
33.Sapphire Secondary School	56
34.Sebokeng Technical High School	28
35.Sehopotso Secondary School	39
36.Setjhaba Sohle Secondary School	40
37.Sizanani-Thusanang Comprehensive School	39
38.Suncrest High School (model C)	28
39.Thandukwazi Secondary School	56
40.Tharabollo Secondary School	39
41.The Vaal High School (model C)	28

42.Thuto-Tiro Comprehensive School	42
43.Tokelo Secondary School	42
44.Tshepo-Themba Secondary School	42
45. Tsolo Secondary School	56

APPENDIX C

District 7 (D7)

PUBLIC SECONDARY SCHOOLS IN TOWNS	PUBLIC SECONDARY SCHOOLS IN THE TOWNSHIP
1.General Smuts High School (model C)	1. Isizwe-Setjhaba Secondary School
2.Hoer Tegniiese Skool Vereeniging (modelC)	2.New Ratanda Secondary School
3. Hoër Volksskool Heidelberg (model C)	3.Khanya-Lesedi Secondary School
4. Hoërskool Dr Malan (modelC)	4.Kudung Middle School
5. Hoërskool Drie Riviere (Model C)	5.Lekoa Shandu Secondary
6. Hoërskool Overvaal (model C)	6.Mohloli Secondary School
7.Hoërskool Vereeniging (model C)	7. Thuto Lore Secondary School
8. Meyerton High School	8.Ratanda Secondary School
9.Riverside High School (modelC)	
10.Roshnee Secondary School	
11.Rusoord Secondary School	

APPENDIX D

District 8 (D8)

PUBLIC SECONDARY SCHOOLS IN TOWNS	PUBLIC SECONDARY SCHOOLS IN THE TOWNSHIP
1. Hoërskool Tegniëse De Wet (model C)	1.Beverly Secondary School
2. Hoërskool Driehoek (model C)	2.Boikgethelo Secondary School
3. Hoërskool Suiderlig (model C)	3.Botebo-Tsebo Secondary School
4. Hoërskool Transvalia (model C)	4.Dinokaneng Secondary School
5. Hoërskool Vanderbijlpark (model C)	5. E.D Mashabane Secondary School
6.Prestigious Aureate High School	6. Esokwazi Secondary School
7.Suncrest High School (model C)	7. Fundulwazi Secondary School
8.The Vaal High School (model C)	8. Jet Nteo Secondary School
	9. Jordan Secondary School
	10. Katleho-Impumelelo Secondary School
	11. Kgokare Secondary School
	12.Khutlo-Tharo Secondary School
	13.Lakeside Secondary School
	14.Lebohang Secondary School
	15.Mahareng Secondary School
	16.Maxeke Secondary School
	17.Mohaladitwe Secondary School
	18Mopholosi Secondary School
	19.Moqhaka Secondary School
	20.Moshate Secondary School
	21.Poelano Secondary School
	22.Qedilizwe Secondary School
	23.Ramolelle Secondary School
	24.Ramosukula Secondary School
	25.Residensia Secondary School
	26.Rutasetjhabe Secondary School
	27.Sapphire Secondary School
	28.Sebokeng Technical High School
	29.Sehopotso Secondary School
	30.Setjhaba Sohle Secondary School
	31.Sizanani-Thusanang Comprehensive School
	32.Thandukwazi Secondary School
	33.Tharabollo Secondary School
	34.Thuto-Tiro Comprehensive School
	35.Tokelo Secondary School
	36.Tshepo-Themba Secondary School
	37. Tsolo Secondary School

APPENDIX E

Questionnaire

SECTION A: BIOGRAPHICAL INFORMATION

Please note: To answer please mark with an X in the appropriate block.

1. Is your school situated in a	Township	Town/City/Suburb	Rural area
2. Are you currently an/a	Educator	Head of department	Deputy-principal Principal
3. Number of years in your present position	0 – 5	6 -10	11- 15 16 – 20 > 20
4. Are you a member of the school finance committee?			Yes No
5. Number of learners in your school	< 500	500 - 1000	> 1000
6. Number of educators in your school including school managers	< 20	20 - 49	> 50

SECTION B: QUESTIONS ON THE BUDGETING PROCESS

The research questionnaire will be on a four-point scale of “Strongly agree”, “Agree”, “Do not agree” and “Strongly disagree”.

Please note: To answer please mark with an X in the appropriate block.

		Strongly agree	Agree	Do not agree	Strongly disagree
1	In our school, the budget helps to plan for the income and expenditure for the next year				
2	In our school, the budget assists the school to determine the amount required to supplement the resources provided by the state				
3	In our school, the budget provides a way of allocating expenditure to different school activities				

		Strongly agree	Agree	Do not agree	Strongly disagree
4	In our school, the budget serves as an instrument of controlling spending during the year				
5	In our school, the budget assists the school to arrive at a fair and equitable amount of fees to be charged				
6	In our school, the budget assists in recognizing the need to build up reserves for major school projects				
7	The school principal involves the subordinates in setting the budget objectives				
8	The school principal involves the parents in setting the budget objectives				
9	Subordinates participate in decisions on budget alternatives				
10	The budget assists the school to determine the amount required to supplement the resources provided by the state				
11	The parents participate in decisions on budget alternatives				
12	The school managers undergo skills development on financial management				
13	The school finance committee undergoes skills development on financial management				
14	Your school issues budget guidelines prior to preparing the budget				

		Strongly agree	Agree	Do not agree	Strongly disagree
15	The school finance committee prepares the budget annually				
16	The budget is compared to the income and expenditure on a monthly basis				
17	The Budget Variance Report is presented to the SGB on a monthly basis				
18	Bank statements are collected and reconciled on a monthly basis				
19	Educators undergo skills development on financial management				
20	Co-ordination among the various departments during budget execution is achieved				
21	Budget control at your school helps measure efficiency in different departments of the school				
22	Performance targets are set and made known in advance to participants				
23	Benchmarks are developed to evaluate financial target achievements				
24	The previous year's income and expenditure is compared to the current year's income and expenditure to judge current budget performance				
25	Budget plans, policies and constraints are communicated to you verbally				
26	Budget plans, policies and constraints are communicated to you via a circulated document				

		Strongly agree	Agree	Do not agree	Strongly disagree
27	You are allowed to comment on the budget plans, policies and constraints circulated to you				
28	Being involved in the budget communication process distracts you from teaching				
29	Communication about budgeting at your school takes place in a top-down approach				
30	Communication about budgeting at your school takes place in a bottom-up approach				
31	Budgeting motivates educators to achieve instructional goals				
32	The principal rewards educators for achieving budget targets				
33	The principal threatens to take action against educators if budget objectives are not met				
34	The principal is rewarded for achieving budget targets				
35	The principal is threatened with action if budget objectives are not met				
36	Co-ordination of budget activities helps to identify and resolve conflict about budget allocation between various departments				
37	Co-ordination of budget activities is implemented in an open, fair, consistent, professional manner				
38	Co-ordination of budget activities is structured				